

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

DIVISION OF CORPORATION FINANCE

December 16, 2010

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

> Re: Rigel Pharmaceuticals, Inc. Form 10-K for the Fiscal Year Ended December 31, 2009 Filed March 2, 2010 Form 10-Q for the Quarterly Period Ended September 30, 2010 File Number: 000-29889

Dear Mr. Maynard:

We have limited our review of your filings to those issues we have addressed in our comment. In our comment, we ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. Where our 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 our comment applies to your facts and circumstances, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comment.

After reviewing the information you provide in response to this comment, we may have additional comments and/or request that you amend your filings.

Form 10-Q for the Quarterly Period Ended September 30, 2010 Part I Financial Information Item 1. Condensed Financial Statements Notes to Condensed Financial Statements 10. AstraZeneca Collaboration, page 11

1. Please revise your disclosure to describe all of your rights and obligations under the AstraZeneca agreement, including how you determined the collaborative development period and all deliverables. In addition, address your obligation to participate in the Joint Steering Committee and tell us why it is appropriate to recognize the entire \$100 million as revenue through September 2010 in light of this obligation.

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We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its 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 responding to our comment, please provide a written 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.

You may contact Tabatha Akins, Staff Accountant, at (202) 551-3658 or Donald Abbott, Senior Staff Accountant, at (202) 551-3608 if you have questions regarding the comment. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg Senior Assistant Chief Accountant