



DIVISION OF  
CORPORATION FINANCE

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

February 7, 2011

Mr. Peter Riehl  
Chief Executive Officer  
Stellar Pharmaceuticals, Inc.  
544 Egerton  
St London, Ontario, Canada N58 3Z8

**Re: Stellar Pharmaceuticals, Inc.**  
**Form 10-K for the Year Ended December 31, 2009**  
**Filed March 30, 2010**  
**File No. 000-31198**

Dear Mr. Riehl:

We have reviewed your January 12, 2011 response to our December 13, 2010 letter and have the following comments.

Please respond to this letter within ten business days by amending your filings, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe a comment applies to your facts and circumstances or do not believe an amendment is appropriate, 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 comments.

After reviewing any amendment to your filings and the information you provide in response to these comments, we may have additional comments.

Item 11. Executive Compensation, page 31

Termination and Change of Control Benefits, page 33

1. We have reviewed your response to prior comment 5. Please be aware that we will not be in a position to clear this comment until you have filed a copy of Mr. Riehl's employment agreement.

Report of Independent Registered Chartered Accountants, page F-2

2. We note your amendment to remove the copy of Deloitte & Touche's audit opinion and your response to prior comment 7. Pursuant to Rule 8-02 of Regulation S-X, you are required to file an audited balance sheet as of the end of each of the most recent two fiscal years and audited statements of income, cash flows and changes in stockholders' equity for each of the

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two fiscal years preceding the date of the most recent audited balance sheet. Please amend your Form 10-K a second time to include a report of an independent accountant that complies with Article 2 of Regulation S-X on the financial statements as of and for the year ended December 31, 2008.

You may contact Christine Allen, Staff Accountant at (202) 551-3652 or Melissa Rocha, Branch Chief at (202) 551-3854 if you have questions regarding the processing of your response as well as any questions regarding the comment on the financial statements and related matters. Please contact Karen Ubell, Staff Attorney at (202) 551-3873 or Jennifer Riegel, Staff Attorney at (202) 551-3575 with questions on comment one. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief Accountant