

Via Facsimile and U.S. Mail  
Mail Stop 6010

September 6, 2007

Peter Riehl  
Chief Executive Officer  
Stellar Pharmaceuticals Inc.  
544 Egerton Street  
London, Ontario Canada  
N5W 3Z8

**Re: Stellar Pharmaceuticals Inc.  
Form 10-KSB for the Fiscal Year Ended December 31, 2006  
Filed April 2, 2007  
File Number: 000-31198**

Dear Mr. Riehl:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your document. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

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.

13. Contingencies and Commitments

(b) License Agreements

1. Please provide us your analysis of continuing obligations that are associated with the Watson license agreement including any side or oral agreements. Our cursory

review of this agreement included as exhibit 10.1 in the 8-K filed on December 22, 2006 revealed the following terms:

- paragraph 3.4 - all expenses incurred by Stellar in connection with the supply of ongoing Methods and Technical Know-How and in carrying out its obligations under this License Agreement shall be paid by Stellar.
- paragraph 6 - two senior managers representing Stellar are required to participate in a Commercialization Committee.
- paragraph 8.1 b) - Stellar agrees to furnish continuing technical assistance and guidance.

Please address these and any other obligations, and tell us why it is appropriate to recognize the entire amount at the inception of the contract as revenue in view of the obligations.

Exhibits 32.1 and 32.2

2. Please amend your certifications to follow the format prescribed by Item 601(b)(31) of Regulation S-B. This also applies to the certifications included in your reports on Form 10-QSB for the periods ended March 31, 2007 and June 30, 2007.

\* \* \* \*

As appropriate, please amend your filings and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendments to expedite our review. Please furnish a cover letter with your amendments that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your amendments and responses to our comments.

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 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 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;

Peter Riehl  
Stellar Pharmaceuticals Inc.  
September 6, 2007  
Page 3

- 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.

You may contact Vanessa Robertson, Staff Accountant, at (202) 551-3649 or Jim Atkinson, Accounting Branch Chief, at (202) 551-3674 if you have any questions regarding these comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief  
Accountant