

Via Facsimile and U.S. Mail
Mail Stop 4720

October 8, 2009

Colin Goddard, Ph.D.
Chief Executive Officer
OSI Pharmaceuticals, Inc.
41 Pinelawn Road
Melville, New York 11747

**Re: OSI Pharmaceuticals, Inc.
Form 10-K for Fiscal Year Ended December 31, 2008
DEF 14A filed April 29, 2009
File No. 000-15190**

Dear Dr. Goddard:

We have reviewed your response letter dated August 18, 2009 responding to our July 20, 2009 comment letter and have the following additional comments. In our comments, we ask you to provide us with information to better understand your disclosure. Where it 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 filing.

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

Manufacturing and Supply, page 7

1. We note your response to our prior comment 2. Please note that we will not be in a position to clear our review of this filing until the agreements have been filed as exhibits to your Form 10-Q for the quarterly period ending September 30, 2009.

Our Clinical Development Programs, page 8

2. We note your response to our prior comment 3 and point out that you have not included information regarding the term of the referenced Eli Lilly and Company agreement; only the termination provisions have been addressed in your response. Please provide proposed disclosure which includes information regarding the term of the referenced agreement.

DEF 14A filed April 29, 2009

Compensation Discussion and Analysis

Equity Awards, page 23

3. We note your response to our prior comment 11 and your discussion of how the individual equity award percentages were determined for each named executive officer. Please provide an explanation as to why Robert Simon's performance was judged to be so exceptional to warrant a 50% increase over the target and why Colin Godward was awarded a divergent award of only an 8% increase from his target on stock options and a 25% increase over target on restricted stock units. Also, please confirm that you will provide similar disclosure in your 2010 proxy statement, as will be applicable to next year's compensation discussion and analysis.

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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 responses to our comments and provide any requested information. 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 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 filing;

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- 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.

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 filing or in response to our comment on your filing.

Please contact Laura Crotty, Staff Attorney, at (202) 551-3575, Suzanne Hayes, Legal Branch Chief, at (202) 551-3675 or myself at (202) 551-3715 if you have questions regarding the processing of your response, our comments or related matters.

Sincerely,

Jeffrey P. Riedler
Assistant Director