

Mail Stop 6010

December 29, 2006

Michael N. Chang, Ph.D.
President and Chief Executive Officer
Optimer Pharmaceuticals, Inc.
10110 Sorrento Valley Road, Suite C
San Diego, California 92121

**Re: Optimer Pharmaceuticals, Inc.
Registration Statement on Form S-1
Amendment no. 1 filed December 15, 2006
File No. 333-138555**

Dear Dr. Chang:

We have reviewed your filing and have the following comments. 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. After reviewing this information, we may raise additional comments.

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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form S-1

Prospectus Summary

1. We note your response to comment 7, however we are unable to locate the supplemental sources referred to in your letter. Accordingly, we will reserve

consideration of your response to this comment upon receipt and review of the supplemental materials.

“Delays in clinical trials are common and have many causes.....” page 15

2. We note your response to comment 15 and reissue the comment in part. Please expand the discussion to quantify the extent of participation/enrollment in the trials.

Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 47

Critical Accounting Policies and Estimates, page 50

Stock-Based Compensation, page 51

3. We note your response to comment 23 and your revised disclosures. We note your disclosure that the market based approach considered information on valuations received from your financial advisors. Please name these “experts” and include a consent from them in your document.

Collaborations, Commercial and License agreements and Grants, page 74

4. We note your response to comment 27. Aggregate milestone payments and amounts paid to date are material information for which the staff is not willing to grant confidential treatment. Therefore, our comment is reissued. Please revise to provide the requested information in your next amendment.

Financial Statements – December 31, 2005

6. Revenue and Other Collaborative Agreements, page F-18

Other Collaborative Agreements, page F-20

5. Refer to your response to comment 35. Please note that the disclosure requested is required information in your document, so confidential treatment would not be available to such information. Please revise your disclosure to include the aggregate milestone payments required under these agreements.

* * *

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover

letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 Act of 1933 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness 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 connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Vanessa Robertson at (202) 551-3649 or James Atkinson at (202) 551-3674 if you have questions regarding comments on the financial statements and related matters. Please contact John Krug at (202) 551-3862, Suzanne Hayes at (202) 551- 3675, or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey Riedler
Assistant Director

cc: John D. Prunty
J. Casey McGlynn, Esq.
Scott N. Wolfe, Esq.