



DIVISION OF
CORPORATION FINANCE

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

June 28, 2012

Via E-mail

Paul J. Hastings
President & Chief Executive Officer
OncoMed Pharmaceuticals, Inc.
800 Chesapeake Drive
Redwood City, CA 94063

**Re: OncoMed Pharmaceuticals, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed June 15, 2012
File No. 333-181331**

Dear Mr. Hastings:

We have reviewed your amended registration statement letter, each dated June 15, 2012, and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

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

Prospectus Summary, page 1

1. In response to prior comment 7, you disclose that as of April 27, 2012 manageable hypertension was a common treatment related adverse event in your demcizumab Phase Ib trial. Please expand your disclosure on pages 2 and 69 to note this adverse event in this trial.

Risk Factors

“If we are required to suspend or discontinue clinical trials due to side effects...” page 13

2. We have reviewed your response to prior comment 8. Please expand your disclosure here to provide a brief summary of the adverse events associated with each product candidate.

“Failure to successfully validate, develop and obtain regulatory approval for companion diagnostics...,” page 18

3. In your response to prior comment 9, you have listed demcizumab on pages 5 and 75 in addition to the other product candidates listed in this risk factor that you may seek to develop a companion diagnostic. Please expand your disclosure in this risk factor to include demcizumab or provide an explanation of how the disclosures are consistent.

Use of Proceeds, page 44

4. We acknowledge your response to our prior comments 13 and 15 and related revised disclosure. Please confirm that such amounts will be updated to reflect estimated proceeds calculated based upon the bona fide price range to be submitted pre-effectively.

Management’s Discussion and Analysis of Financial Condition and Results of Operations
Stock-Based Compensation
Common Stock Valuations, page 60

5. Please refer to your response to our comment 16. Please note we may have additional comments once the actual price range for the offering is known. Additionally, please address the following:
 - With respect to the first bullet, please revise your disclosure to quantitatively illustrate how the market multiples changed at each valuation date.
 - With respect to the fifth bullet, it is still unclear why the probability of the IPO did not increase in April 2012. We note that the Board of Directors approved the valuation of the stock on April 20, 2012, and the registration statement was filed on May 11, 2012.

Business

Demcizumab (OMP-21M18, Anti-DLL4), page 75

6. We have reviewed your response to prior comment 18. Since efficacy is measured over a period of time, we believe that you should revise your table on page 76 to show the percent change as of the last measurement for each respective patient rather than using the “best percent change.” Alternatively, if you believe that the “best percent change” provides a more accurate portrayal of the trial, please expand your disclosure to provide the reasons that you have chosen to use this data rather than the last measurement for each patient and supplementally provide us with a similar table that illustrates the percent change as of the last measurement for each patient.
7. We have reviewed your response to prior comment 22. Please expand your disclosure to disclose the number of patients that left the trials prior to completion, how long they participated in the respective trial and the potential reasons for leaving the trial.

Collaboration and License Agreements, page 83

8. We note your revised disclosure in response to our prior comments 37 and 38. Please provide us with an analysis that explains how your disclosures on page 83-85 are consistent with your disclosures on pages F-18-F20.
9. Please expand your disclosure concerning your agreement with Bayer to disclose when Bayer's payment obligations expire.

Notes to Financial Statements

11. Collaborations

GSK Strategic Alliance, page F-18

10. Please refer to our comment 37. Please revise your disclosure to state, if true, whether the payments for the achievement of regulatory events and worldwide net sales meet the definition of milestones. If such payments are solely based on GSK's performance, please indicate that the milestone method will not be applied to those milestones. This also applies to our comment 38.

13. Stock Incentive Plan, page F-22

11. Please refer to your response to our comment 40. You indicate that your pipeline is not as advanced as most of the publicly traded companies utilized in your analysis. Please tell us how you determined that the comparable publicly traded biopharmaceutical companies were similar, in order to evaluate if their average was materially consistent with the 75.0% utilized in your Black-Scholes option pricing model. Additionally, given your assertion, please tell us why utilizing these companies was appropriate. Refer to the Interpretive Response to Question Six of SAB Topic 14D1.

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 the information the Securities Act of 1933 and all applicable Securities 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.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Paul J. Hastings
OncoMed Pharmaceuticals, Inc.
June 28, 2012
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You may contact Tabatha Akins, Staff Accountant, at (202) 551-3658 or Lisa Vanjoske, Senior Staff Accountant, at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact Karen Ubell, Staff Attorney, at (202) 551-3873, Jennifer Riegel, Special Counsel, at (202) 551-3575 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jennifer Riegel for

Jeffrey Riedler
Assistant Director