

Via Facsimile and U.S. Mail
Mail Stop 4720

October 23, 2009

Mr. Kenneth Boger
Senior Vice President and General Counsel
Vertex Pharmaceuticals Incorporated
130 Waverly Street
Cambridge, MA 02139-4242

**Re: Vertex Pharmaceuticals Incorporated
Form 10-K for the Period Ended December 31, 2008
Form 10-Q for the Quarterly Period Ended March 31, 2009
Definitive Proxy Statement on Schedule 14A filed April 8, 2009
File No. 000-19319**

Dear Mr. Boger:

We have reviewed your August 31, 2009 response to our July 8, 2009 letter and have the following comments. In our comments, we ask you to provide us with information to better understand your disclosure. Where a comment requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or interim 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. Please note that comments two and three were previously issued verbally to you on October 7, 2009. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Definitive Proxy Statement on Schedule 14A filed on April 13, 2009

Compensation Discussion and Analysis
2008 Compensation Decisions for Performance-Based Elements, page 29

1. We note your response to our prior comment 4. However, your response does not appear to address our concerns. To the extent that your four high-level goals are more specifically defined than the disclosure in your document, they should be more specifically described. For example, one of the goals is to “meet or exceed timelines in clinical, regulatory, quality, manufacturing and commercial operations toward a successful launch of telaprevir.” If the goals, as communicated to your executives, are more specific as to these timelines, these timelines should be described. If you believe that a more specific disclosure of these goals would be competitively harmful, please provide us with an analysis supporting your belief. The analysis should identify the information that you

believe would cause competitive harm, describe the competitive harm you are likely to experience if the information is disclosed and explain why this information is not material to investors. We will not be in a position to assess the likelihood of competitive harm if we do not know what the specific goals are. Please be advised that you may request confidential treatment for portions of your response pursuant to Rule 83. Please provide proposed disclosure for your 2010 proxy statement.

Additionally, comment 4 indicated that when information relating to targets and goals is not provided on the basis that disclosure is not material and is likely to cause competitive harm, you must discuss how difficult it will be for the executive or how likely it will be for the company to achieve the undisclosed goals or targets. Your response directs our attention to the disclosure relating to the level of achievement which is not the same as a discussion of the level of difficulty to achieve the stated goals and targets. If you continue to believe that your goals and targets qualify for confidential treatment, please discuss the level of difficulty related to the undisclosed goal(s) or target(s).

Form 10-Q for the Quarterly Period Ended March 31, 2009

9. Acquisition of ViroChem Pharma Inc. Preliminary Allocation of Assets and Liabilities, page 18

2. We acknowledge your response to comment seven (a). Although the nature, timing and estimated costs of the efforts to complete the development of VX-222 and VX-759 are subject to risks and uncertainties, we do not understand why meaningful estimates are not available when it would appear that these costs are a significant component of the cash flow assumptions inherent in your fair value assessment of these projects. Please revise your disclosure to provide the nature, timing and estimated costs to complete these projects as utilized in your fair value assessment.
3. We acknowledge your response to comment seven (c). Please address the following additional comments:
 - You indicate that you did not ascribe value to ViroChem's other preclinical programs and other technologies because market participants would be unlikely to ascribe value to them. Please tell us how many other preclinical programs and other technologies you acquired from ViroChem and the associated treatment indications.
 - It appears that you based the \$7.2 million fair value assigned to the VCH-286 intangible asset based on the development costs incurred through the acquisition date. Please demonstrate to us how the value assigned is consistent with that derived by a market participant and how it complies with the guidance in paragraph 33 of SFAS 141R. Please revise your disclosure accordingly.

Mr. Kenneth Boger
Vertex Pharmaceuticals Incorporated
October 23, 2009
Page 3

* * * *

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 response to our comments. Detailed cover letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP.

Please contact Kei Ino, Staff Accountant, at (202) 551-3659 or Mark Brunhofer, Senior Staff Accountant, at (202) 551-3638 if you have questions regarding the processing of your response as well as any questions regarding comments on the financial statements and related matters. You may contact Mike Rosenthal, Staff Attorney at (202) 551-3674 or Jennifer Riegel, Staff Attorney at (202) 551-3575 with questions on the Definitive Proxy Statement comment. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant