VERTEX PHARMACEUTICALS INCORPORATED
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November 5, 2012

Delivered via EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 First Street, N.E.
Mail Stop 4720
Washington, DC 20549

Attn: Jim B. Rosenberg, Senior Assistant Chief Accountant
Lisa Vanjoske, Assistant Chief Accountant
James Peklenk, Staff Accountant

Re: Vertex Pharmaceuticals Incorporated
Form 10-K for the Fiscal Year Ended December 31, 2011
Filed February 22, 2012
Form 10-Q for the Quarterly Period Ended March 31, 2012
Filed May 10, 2012
File No. 000-19319

Ladies and Gentlemen:

The purpose of this letter is to respond to a comment from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") to Vertex Pharmaceuticals Incorporated (the "Company") set forth in the Staff's letter to Ian F. Smith dated October 19, 2012 (the "Comment Letter") regarding the Company's filings with the Commission referenced above. The Comment Letter was issued in response to the Company's letter to the Commission dated September 17, 2012. The comment from the Comment Letter is reproduced below together with the Company's response to the comment.

Form 10-K for the Fiscal Year Ended December 31, 2011
Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations
Results of Operations
Operating Costs and Expenses
Cost of product revenues, page 63

Comment 1

We do not believe that you have demonstrated that costs incurred for commercial sale or possible commercial sale of product by you or your collaborative partners and not for use in your clinical trials represent research and development expense. In this regard, you have not demonstrated that these costs are excluded from those described in ASC 730-10-15-4.c nor have your demonstrated how these costs are identified with research and development activities described in ASC 730-10-25-2. Please confirm to us

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that, in future filings, you will reclassify these costs out of research and development expenses for each period presented and tell us the line item within your statements of operations in which you will classify these costs, or tell us why you believe no reclassification is necessary.

Response 1

The Company believes that no reclassification of its drug supply costs is necessary because its investment in drug supply was incurred "at risk" and had no alternative future use, and classification of these drug supply costs as research and development expenses is consistent with the classification of similar costs incurred by other companies in its industry. Development of pharmaceutical products is extremely risky, and the Company could not be sure whether or not the Company and its collaborators would successfully complete the required clinical trials evaluating telaprevir, a hepatitis C virus ("HCV") protease inhibitor for genotype 1 HCV infection, or if the trials were successfully completed, whether or not regulatory authorities would grant the approvals necessary to market telaprevir (branded as INCIVEK in the United States) in the relevant jurisdictions. The Company and its collaborators chose to make significant at-risk investments in INCIVEK, including building significant pre-launch inventories, in advance of completing the clinical trials and obtaining regulatory approval, to ensure that commercial inventory was available at the earliest possible date that telaprevir could be made available to patients, in part due to long lead times needed to manufacture INCIVEK and in part to have sufficient inventory to satisfy demand immediately upon approval, if granted. The Company expected that initial demand for telaprevir would be significant because market research indicated that physicians were planning to treat a significant number patients with telaprevir if it received approval from the United States Food and Drug Administration.

In order to clearly identify these drug supply costs as significant at-risk investments, the Company separately disclosed them in its discussion of research and development expenses in Management's Discussion and Analysis in each period presented, beginning in 2006.

Accordingly, the Company respectfully proposes to maintain its historical classification of these drug supply costs as research and development expenses in future filings.

The Company acknowledges that:

1) the Company is responsible for the adequacy and accuracy of the disclosure in its filings;

2) Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to its filings; and

3) 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.

Please contact Paul M. Silva, Senior Vice President and Corporate Controller, at 857-263-4171, or me at 617-961-0878 in the event that you have any questions or concerns with respect to this matter. In the event that I am not available, please contact my colleague, Valerie L. Andrews, Vice President and General Counsel, at 617-341-6227.

Very truly yours,

/s/ Kenneth L. Horton
Kenneth L. Horton
Executive Vice President and Chief Legal Officer