Via Facsimile and U.S. Mail
Mail Stop 4720

July 8, 2009

Mr. Joshua Boger
Chief Executive Officer
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 filings 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 quarterly filing, as applicable, in which you intend to first include it. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. 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 Period Ended December 31, 2008

Item 1. Business
Intellectual Property, page 15

1. We note that you disclose that you have the rights to a number of U.S and foreign patents covering your potential drug targets, compounds you are developing to modulate those targets, methods of making or using those compounds and proprietary elements of your drug discovery platform. Please expand your disclosure here to include the number of patents related to each material potential drug target, compound, method and/or proprietary element and the expiration dates for those patents.

Management's Discussion and Analysis of Financial Conditions and Results of Operations
Critical Accounting Policies and Estimates, page 55

2. In your discussion regarding the recognition of revenue associated with up-front license fees, you indicate that your estimates regarding the period of performance have changed in the past and may change in the future and that any change could result in substantial changes to the period over which up-front license fee revenues are recognized. Please revise your disclosure to specifically discuss the magnitude of your historical changes in estimate and the resulting financial statement impact as well as the impact of reasonably likely changes in your current period estimate.

Results of Operations
Research and Development Expenses, page 61

3. We acknowledge your July 30, 2004 response to comment 1 of our June 28, 2004 letter in which you indicated that you did not track research and development expenses by project. Please tell us whether you have since modified your systems to track these expenses by project. If so, please revise your disclosure to add discussion of these expenses by project. If not, please specifically disclose that fact, explain why you do not maintain and evaluate research and development costs by project and provide other quantitative or qualitative disclosure that indicates the amount of the company's resources being used on each project.

Definitive Proxy Statement on Schedule 14A filed April 8, 2009

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

4. You disclose that you "consider aspects of [your] annual corporate goals to be confidential information and closely guard this information." Please supplementally describe the "aspects of [your] corporate goals" that you believe constitute confidential information. Please present a comprehensive analysis supporting your conclusion that the disclosure of this information is not material to investors and would cause competitive harm if it is disclosed. Additionally, when information regarding targets and goals is not provided on the basis that disclosure would cause competitive harm, you must discuss how difficult it will be for the executive or how likely it will be for your company to achieve the undisclosed targets or goals. Please see Instruction 4 to Item 402(b) of Regulation S-K. Please note that you may request confidential treatment for portions of your analysis pursuant to Rule 83.

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

Note 9. Acquisition of ViroChem Pharma Inc.
Purchase Price, page 18

5. Please revise your disclosure to describe the primary reasons for the business combination and the factors that make up the goodwill recognized. Refer to paragraphs 68d and 68e of SFAS 141(R).

Preliminary Allocation of Assets and Liabilities, page 18

6. Please revise your disclosure to indicate when you expect to finalize your valuations of the intangible assets acquired.

7. You disclose that the $525.9 million of intangible assets in your preliminary fair value estimates at the acquisition date relate entirely to in-process research and development, or IPR&D, assets. Please address the following comments:
   a. You disclose that your IPR&D assets primarily relate to ViroChem's two polymerase inhibitors, VCH-222 and VCH-759. On page 32, you indicate that you would incur significant charges if, in particular VCH-222, were to become impaired. Consistent with the guidance in paragraph 4.2.03 of the AICPA Practice Aid on IPR&D, please revise your disclosure related to these IPR&D assets here and in MD&A to:
      - Indicate separately the values of VCH-222 and VCH-759;
      - Clarify the differences between the two projects and why VCH-222 is apparently more valuable than VCH-759;
      - Indicate the nature, timing and estimated costs of the efforts necessary to complete the projects, and the anticipated completion dates;
      - Disclose significant appraisal assumptions, such as:
        - The period in which material net cash inflows from significant projects are expected to commence;
        - Material anticipated changes from historical expense levels; and
        - The risk adjusted discount rate applied to each project's cash flows.
      - Discuss in periods after the acquisition the status of efforts to complete the projects, and the impact of any delays on your expected investment return, results of operations and financial condition.
   b. Please explain to us why you did not identify any other intangible assets at acquisition. In your response, please specifically indicate why you apparently do not believe that you acquired core technologies for which you have alternative future uses in research and development, or otherwise. Also, please specifically explain why you apparently do not identify any of the technology-based intangible assets indicated in paragraph A51 of SFAS 141(R). Please reference for us the authoritative literature you rely upon to support your accounting.
   c. On page 30 you indicate that you are evaluating ViroChem's non-HCV programs and that you may seek to license rights to ViroChem's other assets to a third-party collaborator. Please explain to us how you accounted for

these programs and assets in your acquisition accounting and reference for us the authoritative literature you rely upon to support your accounting.

* * * *

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides the requested information. Detailed 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;
- 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 comments on your filing.

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 Rosenthall, Staff Attorney at (202) 551-3674 or Jennifer Riegel, Staff Attorney at (202) 551-3575 with questions on any of the other comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant