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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**
Kei Ino, Staff Accountant
Mark Brunhofer, Senior Staff Accountant
Mike Rosenthall, Staff Attorney
Jennifer Riegel, Staff Attorney

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

Ladies and Gentlemen:

The purpose of this letter is to respond to the comments from the staff (the "Staff") of the Securities and Exchange Commission (the "SEC") to Vertex Pharmaceuticals Incorporated (the "Company") set forth in the Staff's letter to Joshua Boger dated July 8, 2009 (the "Comment Letter") regarding the Company's filings with the SEC referenced above. The comments from the Comment Letter are reproduced below together with the Company's responses to those comments.

Form 10-K for the Period Ended December 31, 2008

Item 1. Business
Intellectual Property, page 15

Comment 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.

Response 1

The Company proposes to expand its disclosure regarding its intellectual property in future periodic filings (commencing with its Annual Report on Form 10-K for the year ending December 31, 2009) to provide additional information in both narrative and tabular form regarding the patents and pending patent applications that claim the composition-of-matter of its Phase 2 and Phase 3 drug candidates. The expanded disclosure would include (i) whether or not the patents have been granted in the United States and the European Union, and (ii) expiration dates for the issued patents and anticipated expiration dates for claims that are the subject of patent applications.

As part of its patent strategy, the Company seeks to augment its intellectual property estate by filing patent applications covering pharmaceutical compositions, related solid forms, formulations, dosing regimens, methods of use and manufacturing methods for each of its drug candidates, as appropriate, and as a result the Company currently has more than 800 patents and patent applications in the Company's intellectual property portfolio for the United States alone. However, composition-of-matter claims are generally the most significant patent claims for that segment of the pharmaceutical industry that focuses, like the Company, on small molecule drug candidates that are new chemical compounds, and the Company currently has patents or patent applications with composition-of-matter claims for each of its more advanced clinical drug candidates. Therefore, the Company believes that a focus on composition-of-matter claims covering the Company's more advanced clinical drug candidates will provide the most meaningful disclosure to investors while avoiding the investor confusion that could be engendered through disclosure regarding the Company's numerous secondary patents/patent applications.

The Company expects that the expanded disclosure, to be updated as circumstances dictate, would be substantially as follows:

We hold issued patents and pending patent applications in the United States, and in foreign countries we deem appropriate, claiming intellectual property developed as part of each of our significant research and development programs, but we cannot be certain that issued patents will be enforceable or provide adequate protection or that pending patent applications will result in issued patents. While we have numerous issued patents and pending patent applications in our patent portfolio, we believe that the patents and patent applications in the United States and European Union that claim the composition-of-matter of our drug candidates that have progressed at least into Phase 2 clinical trials are the most important to our

business. The following table sets forth the status of the primary patents and patent applications in the United States and the European Union covering the composition-of-matter of these drug candidates:

Drug Candidate	Status of U.S. Patent (Anticipated Expiration, Subject to Potential Extensions)	Status of European Union Patent (Anticipated Expiration, Subject to Potential Extensions)
Telaprevir	Application Pending (2021)	Granted (2021)
VX-770	Granted (2025)	Application Pending (2025)
VX-809	Application Pending (2026)	Application Pending (2026)

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

Comment 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.

Response 2

In the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2009 (the "Second Quarter 10-Q"), the Company supplemented its discussion of its critical accounting policies and estimates with respect to up-front license fees as follows (with the supplemental language emphasized, from pages 37 and 38 of the Second Quarter 10-Q):

"We recognize revenues from nonrefundable, up-front license fees related to collaboration agreements, including the $165.0 million we received from Janssen in 2006, on a straight-line basis over the contracted or estimated period of performance. The period of performance over which the revenues are recognized is typically the period over which the research and/or development is expected to occur. As a result, we often are required to make estimates regarding drug development and commercialization timelines for compounds being developed pursuant to a collaboration agreement. Because the drug development process is lengthy and our collaboration agreements typically cover activities over several years, this approach often has resulted in the deferral of significant amounts of revenue into future periods. In addition, we periodically evaluate our estimates in light of changes and anticipated changes in the development plans for our drug candidates and because of the many risks and uncertainties associated with the development of drug candidates, our estimates regarding the period of performance have changed in the past and may change in the future. Our estimates regarding the period of performance under the Janssen collaboration agreement were adjusted in 2007 as a result of changes in the global development plan for telaprevir. This adjustment was made on a prospective basis beginning in the period in which the change was identified and resulted in a decrease in the amount of revenues we were recognizing from the Janssen collaboration by $2.6 million per fiscal quarter after the adjustment. Any future adjustment in our estimates of the period of performance under our collaborations could result in substantial changes to the period over which the revenues from an up-front license fee related to each such collaboration are recognized. If we adjusted our estimates as of July 1, 2009 to increase the period of performance under the Janssen agreement by one year, it would result in a decrease in the amount of deferred revenues we recognize from our Janssen collaboration of approximately $1.1 million per fiscal quarter beginning in the third quarter of 2009."

Results of Operations
Research and Development Expenses, page 61

Comment 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.

Response 3

Since the Company's prior response to the Staff dated July 30, 2004, the Company has not modified its systems to track expenses for individual drug candidates. Specifically, the Company does not assign to individual drug candidates internal costs such as salary and benefits, stock-based compensation expense, laboratory supplies and infrastructure costs, because employees within the Company's research and development programs typically are deployed across multiple research and development programs and the Company manages its research and development groups on a consolidated basis. While the Company does track external costs by individual drug program, such as the costs of services provided to the Company by clinical research organizations and costs of other outsourced research activities, the Company's internal costs are usually significantly greater than these external costs, and disclosure of only external costs would provide an incomplete and potentially misleading picture of the research and development costs on a drug candidate basis. In the Second Quarter 10-Q, the Company supplemented its disclosure regarding research and development expenses to explain why it does not track expenses for individual drug candidates, as follows (page 41 of the Second Quarter 10-Q):

"Our research and development expenses include internal and external costs incurred for our drug candidates, including telaprevir and VX-770. We do not assign to individual drug candidates our internal costs such as salary and benefits, stock-based compensation expense, laboratory supplies and infrastructure costs because the employees within our research and development groups are typically deployed across multiple research and

development programs. These internal costs are significantly greater than our external costs, such as the costs of services provided to us by clinical research organizations and other outsourced research, which we do allocate by individual drug program."

The Company believes that it is the overall expansion of its research and development expenses in response to the progress that has been made with respect to the development of its lead drug candidates, and in particular telaprevir, that is of most interest to its investors and the Company has provided significant disclosure regarding this expansion of its research and development expenses. For example, in its Annual Report on Form 10-K for the year ended December 31, 2007, the Company stated that it was "focusing a high proportion of our financial and management resources on telaprevir," that "successfully commercializing telaprevir will require a substantial additional financial investment over the next several years" and that "[i]n 2008 and the following years, we expect to invest significant resources to expand our capabilities in clinical development, regulatory affairs, quality control and commercial operations and to build and manage a commercial supply chain as we continue development

and prepare for the potential commercial launch of telaprevir." In addition, in the Company's Annual Report on Form 10-K for the year ended December 31, 2008 and in the Second Quarter 10-Q, the Company disclosed that "[o]ver the next several years, we expect to focus a substantial portion of our resources on the development and potential commercialization of telaprevir." In the Second Quarter 10-Q, on page 42, the Company added the following to provide additional qualitative disclosures about resources being used on telaprevir: "[o]ur lead drug candidate telaprevir represents the largest portion of our development costs for our clinical drug candidates."

Finally, the Company considered the Staff's guidance regarding accounting and disclosure by companies engaged in research and development activities that was referenced in the SEC's comment letter, dated June 28, 2004, and the Company added in the Second Quarter 10-Q the following supplemental disclosure regarding telaprevir in its discussion of its research and development expenses (page 42 of Second Quarter 10-Q):

"Based on the completion of enrollment of our Phase 3 clinical trials of telaprevir in February 2009, we anticipate that our ongoing Phase 3 clinical trials will be completed in mid 2010, but that development costs associated with other clinical trials of telaprevir may continue after the completion of the registration trials. If we are able to successfully commercialize telaprevir in accordance with current development timelines, we anticipate revenues and cash flows from the sales of telaprevir to commence in 2011. Our other drug candidates are less advanced and as a result any estimates regarding development timelines for these drug candidates are highly subjective and subject to change, and we cannot at this time make a meaningful estimate when, if ever, these drug candidates, including the drug candidates we acquired from ViroChem, will generate revenues and cash flows."

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

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

Comment 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.

Response 4

(i) Supplemental Description of Aspects of Corporate Goals Constituting Confidential Information.

In the definitive proxy statement for the 2009 Annual Meeting of Stockholders (the "2009 Proxy"), the Company provided substantial disclosure regarding the Company goals for and performance in 2008. This discussion included full disclosure of the four top-level Company goals for 2008 (page 29 of the 2009 Proxy). Following the disclosure of these goals, the Company provided a more detailed discussion of the Company's accomplishments with respect to these goals in 2008 (page 29 of the 2009 Proxy). The Company believes that the level of detail provided in the 2009 Proxy, together with the balance of the Company's comprehensive disclosure about its business in its Annual Report and otherwise, is sufficient to provide all information material to the Company's stockholders' understanding of the Company-wide performance goals, and thus to the basis for the named executive officers' performance-based compensation for 2008.

After completion of a performance year, the Company's top-level performance goals generally no longer include confidential information. However, when the Company's board of directors analyzes the Company's performance against each goal, it evaluates those factors, some pre-determined and some not, that the Board believes were important to the accomplishment of the goal, including timelines and particular activities. It is this aspect of the goals that the Company seeks to treat as confidential, and to which the Company refers when it says "[w]e consider aspects of our annual corporate goals to be confidential information and closely guard this information, because we believe that our competitors could use it to modify their strategies to compete more effectively with us" (pages 29 and 30 of the 2009 Proxy).

For example, when the Company's board of directors evaluated the Company's performance against its 2008 goal to "meet or exceed timelines in clinical, regulatory, quality, manufacturing, and commercial operations toward a successful launch of telaprevir," the board of directors considered whether or not the Company had, among other things (1) obtained a desired agreement with the FDA with respect to the scope and timing of registration studies and regulatory filings for approval; (2) achieved a specified level of inspection readiness with respect to "Good Manufacturing Practices" by a specified date, by undertaking certain specified activities; (3) achieved specified technical and validation objectives in connection with drug manufacturing; (4) contributed to a specified level of public awareness of the hepatitis C disease area; (5) obtained specified results from a particular clinical trial; and (6) taken all other steps necessary to ensure launch readiness by a specified date. The Company considers this type of information, such as its desired outcome in discussions with

regulatory officials (in particular the FDA), the timelines under which it is working to ensure launch readiness, the steps it takes to prepare for inspection-readiness and the dates on which it plans to be inspection-ready, its technical objectives with respect to drug manufacturing, and so on, to be strictly confidential and treats it as such. Among other things, this information could prove useful to the Company's most direct competitor, which is developing a competing drug candidate on similar timelines and which, given the substantially greater breadth of its business, will not likely be making similar disclosures about its activities as part of its evaluation of executive compensation. Similarly, disclosure of the targets of the Company's public awareness campaign would disadvantage the Company in the competitive marketplace of pharmaceutical marketing. Disclosure of the Company's objectives in discussions with regulatory agencies could have a deleterious effect on the Company's relationship with those regulatory agencies.

While there is variation from year to year, the specific details underlying some of the goals lend themselves more readily to post-hoc disclosure. Where that is not the case, as with respect to business development activities and early-stage research targets, the Company has highlighted for investors that

there is less provided detail, and accordingly provides information about the difficulty in achieving the goals, as set forth below.

(ii) Difficulty in Achieving Company Performance Ratings.

In order to ensure that stockholders are provided the information necessary to understand the performance management program and consistent with its commitment to the Staff in previous letters dated October 23, 2007 and February 28, 2008, the Company provides information regarding the difficulty of achieving goals through the combination of narrative disclosure regarding the level of Company performance required to achieve specific ratings and historical information regarding the Company's performance in prior years.

In the 2009 Proxy on Page 24, the Company discloses in narrative form the level of performance required to achieve performance ratings as follows:

Company Rating	Level of Company Performance
Leading	Exceptional performance across our business, including successful execution of our business plan, achievement of a very high proportion of our original goals, significant additional accomplishments exceeding our original goals, and the absence of significant business setbacks.
Strong	A high level of performance, in which a substantial majority of performance goals were met, and accomplishment of our business plan for the year.
Building	Failure to successfully implement the approved goals or to meet a substantial portion of the annual performance goals for any reason, including a failure of management to execute our business plan, or due to events outside our control that nonetheless had a meaningful negative impact on our performance.
Not Building	Unacceptable and disappointing performance. Significant improvement required and expected.

In addition, the Company provides historical information about the Company's performance ratings (in addition to the detailed discussion regarding the Company rating for the immediately preceding year), demonstrating which types of achievements and setbacks had an impact on the accomplishment of performance goals and the ultimate rating assigned by the Board of Directors for those years, as follows (page 30 of the 2009 Proxy):

"Accordingly, our company performance ratings have varied widely in the last several years, reflecting successes and setbacks in our business. For example, during the period between 2005 and 2007, our company performance ratings were:

- A "Strong" company rating, with an 86% performance rating for our executive officers, for 2007, because our board felt that our positive achievements in advancing the telaprevir clinical development program and our portfolio of other drug candidates, and expanding our drug development, supply chain management and commercialization organizations were tempered in part by some delays in our telaprevir clinical development program as well as a decline in our stock price at the end of 2007 that affected our access to capital in 2007.

- A "Leading" company rating, with a 140% company performance factor for our executive officers, for 2006, because our board believed that we achieved a very high proportion of our annual goals for 2006 across all significant aspects of our business. In 2006, we advanced our telaprevir clinical development program and secured a key collaborative relationship with

Janssen Pharmaceutica for development and potential commercialization of telaprevir. We also achieved key development milestones for earlier stage compounds, and accomplished certain financial objectives, including the completion of a $330 million common stock offering and reduction of our outstanding convertible indebtedness to approximately $100 million.

- A rating of "Distinguished" for 2005, which was the highest possible rating under a previous rating system that included seven possible company ratings. According to our board's assessment, we made progress in every significant aspect of our business in 2005. We advanced our development stage products, including telaprevir, and supported our key collaborative relationships. We also entered into new collaborative relationships, and advanced a number of compounds, including a cystic fibrosis potentiator compound, from the discovery phase to pre-clinical development."

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

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

Comment 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).

Response 5

In the Second Quarter 10-Q, the Company updated its disclosure to clarify that the reason for the acquisition of ViroChem Pharma Inc. ("ViroChem") was to add two clinical-development stage HCV polymerase inhibitors (the "Polymerase Inhibitors") to Vertex's HCV drug development portfolio. The goodwill of $26.9 million that was recognized was based on the Company's estimate of the difference between the aggregate purchase price and the fair value of underlying assets acquired and liabilities assumed in the acquisition. The assets acquired consisted primarily of the Polymerase Inhibitors VX-222 (formerly VCH-222) and VX-759 (formerly VCH-759), which (as described below in response to Comment 7) were estimated to have fair values of $412.9 million and $105.8 million, respectively. The Company expanded its disclosure as follows (with supplemental language emphasized, from pages 21 and 22 of the Second Quarter 10-Q):

"On March 12, 2009, the Company acquired 100% of the outstanding equity of ViroChem, a privately-held biotechnology company based in Canada, for $100.0 million in cash and 10,733,527 shares of the Company's common stock. Vertex acquired ViroChem in order to add two clinical-development stage HCV polymerase inhibitors to Vertex's HCV drug development portfolio.

. . .

The difference between the consideration transferred to acquire the business and the fair value of assets acquired and liabilities assumed was allocated to goodwill. This goodwill relates to the potential synergies from the possible development of combination therapies involving telaprevir and the acquired drug candidates. None of the goodwill is expected to be deductible for income

tax purposes. As of June 30, 2009, there were no changes in the recognized amounts of goodwill resulting from the acquisition of ViroChem."

Preliminary Allocation of Assets and Liabilities, page 18

Comment 6

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

Response 6

The Company's valuations of the intangible assets acquired were finalized in connection with the Second Quarter 10-Q, and the Company's disclosure regarding the acquired intangible assets was updated to include a discussion of these valuations (as discussed in more detail in response to Comment 7).

Preliminary Allocation of Assets and Liabilities, page 18

Comment 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.

Response 7

a. In the Second Quarter 10-Q, after completing the valuations of the intangible assets and in response to the Staff's comments, the Company expanded its disclosure regarding VX-222 (formerly VCH-222) and VX-759 (formerly VCH-759).

(i) Fair Values of VX-222 and VX-759. The Company supplemented its disclosures in both Footnote 10, "Acquisition of ViroChem Pharma Inc.," on page 22 of the Second Quarter 10-Q, and in the MD&A "Critical Accounting Policies and Estimates-Business Combinations," on page 36 of the Second Quarter 10-Q, to separately disclose the estimated fair values of VX-222 and VX-759, which were $412.9 million and $105.8 million, respectively.

(ii) Differences between VX-222 and VX-759. In the MD&A on pages 36 and 37 of the Second Quarter 10-Q, the Company included the following disclosure regarding the differences between the two compounds:

> "While on the date of acquisition each of the HCV polymerase inhibitors was at a similar stage of development, we attributed a significantly higher value to VX-222 than to VX-759 because the clinical and non-clinical data regarding VX-222 was significantly more promising than the clinical and non-clinical data regarding VX-759. In addition, we determined that a market participant would not be likely to continue development of VX-759 unless future data from clinical trials or non-clinical studies of VX-222 resulted in a delay or discontinuation of the VX-222 development program."

(iii) Estimates Regarding Completion of Projects. The nature, timing and estimated costs of the efforts to complete the development of VX-222 and VX-759 are subject to all of the same risks and uncertainties that are applicable to the development of the Company's other drug candidates, and as a result, accurate and meaningful estimates of the costs to bring the Company's drug candidates, including the drug candidates acquired from ViroChem, to market are not available. The Company has provided the following disclosure on pages 41 and 42 of the Second Quarter 10-Q:

> "The successful development of our drug candidates is highly uncertain and subject to a number of risks. In addition, the duration of clinical trials may vary substantially according to the type, complexity and novelty of the drug candidate. The FDA and comparable agencies in foreign countries impose substantial requirements on the introduction of therapeutic pharmaceutical products, typically requiring lengthy and detailed laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures. Data obtained from nonclinical and clinical activities at any step in the testing process may be adverse and lead to discontinuation or redirection of development activity. Data obtained from these activities also are susceptible to

> varying interpretations, which could delay, limit or prevent regulatory approval. The duration and cost of discovery, nonclinical studies and clinical trials may vary significantly over the life of a project and are difficult to predict. Therefore, accurate and meaningful estimates of the ultimate costs to bring our drug candidates to market are not available."

In addition, with respect to the timing of developing VX-222 and VX-759, the Company provided the following disclosure on page 42 of the Second Quarter 10-Q:

> "Our other drug candidates are less advanced and as a result any estimates regarding development timelines for these drug candidates are highly subjective and subject to change, and we cannot at this time make a meaningful estimate when, if ever, these drug candidates, including the drug candidates we acquired from ViroChem, will generate revenues and cash flows."

(iv) Valuation Model. The Company provided the following disclosure (with the supplemental language emphasized) on pages 36 and 37 of the Second Quarter 10-Q:

> "We assess the fair value of assets, including intangible assets such as in-process research and development, using a variety of methods including present-value models that are based upon multiple probability-weighted scenarios involving the development and potential commercialization of the acquired drug candidates. The present-value models used to estimate the fair values of VX-222 and VX-759 reflect significant assumptions regarding the estimates a market participant would make in order to evaluate a drug development asset**,** including the probability of completing in-process research and development projects, which requires successfully completing clinical trials and obtaining regulatory approval for marketing of the associated drug candidate; estimates regarding the timing of and the expected costs to complete in-process research and development projects; estimates of future cash flows from potential product sales; and appropriate discount rates. The fair value of VX-222 and VX-759 was based on the estimated fair value that would be ascribed to each of these compounds by a market participant that acquired both compounds in a single transaction. The probability of advancing VX-222 and VX-759 through various phases of development reflects the understanding among market participants that most drug candidates that enter Phase 2 clinical trials are not ultimately approved. While on the date of acquisition each of the HCV polymerase inhibitors was at a similar stage of development, we attributed a significantly higher value to VX-222 than to VX-759 because the clinical and non-clinical data regarding VX-222 was significantly more promising than the clinical and non-clinical data regarding VX-759. In addition, we determined that a market participant would not be likely to continue development of VX-759 unless future data from clinical trials or non-clinical studies of VX-222 resulted in a delay or discontinuation of the VX-222 development program. Finally, while the duration and cost of non-clinical studies and clinical trials may vary significantly over the life of a project and are difficult to predict, a market participant would assume that it would take several years to complete each phase of clinical trials for a drug candidate for the treatment of patients with HCV and that future cash flows, if any, would not be generated until a drug candidate had completed all required phases of clinical trials and had obtained regulatory approval. The risk-adjusted discount rate for each of these projects is approximately 28%."

(v) Post-acquisition Drug Development Efforts. Included in the MD&A in the Second Quarter 10-Q under the caption "Drug Candidates—HCV Polymerase Inhibitors," the Company provided

disclosures regarding the current status of VX-222 and VX-759. The section captioned "HCV Polymerase Inhibitors" describes the current activities that the Company is undertaking with respect to further development of the Polymerase Inhibitors, including the ongoing and planned clinical trials of VX-222, and the fact that there are currently no ongoing clinical trials of VX-759. Consistent with its disclosures regarding other drug candidates in clinical development, the Company expects to continue updating its periodic filings to disclose material developments with respect to VX-222 and

VX-759, including any changes that materially affect the Company's results of operations and financial condition. The current disclosure is as follows (page 32 of the Second Quarter 10-Q):

> *"HCV Polymerase Inhibitors*
>
> HCV polymerase inhibitors, including our HCV polymerase inhibitors VX-222 (formerly VCH-222) and VX-759 (formerly VCH-759), are direct-acting antivirals that inhibit the ability of the hepatitis C virus to replicate through a mechanism that is distinct from HCV protease inhibitors such as telaprevir. VX-222 and VX-759 were evaluated by ViroChem in Phase 1 clinical trials. In a Phase 1 viral kinetic clinical trial involving five treatment-naïve patients with genotype 1 HCV infection, VX-222 dosed at 750 mg twice daily resulted in a median 3.7 log10 decrease in HCV RNA—equivalent to a 5,000-fold reduction in virus in the blood—at the end of three days of dosing. The results were consistent from patient to patient, and across HCV genotype 1 subtypes. In clinical evaluations of VX-222 to date, no serious adverse events have been observed. VX-222 has completed 28-day non-clinical toxicology studies in two species.
>
> In the second quarter of 2009, we initiated a multi-dose viral kinetic clinical trial to evaluate the antiviral activity, safety, tolerability and pharmacokinetics of VX-222 in patients with genotype 1 HCV infection. There currently are no ongoing clinical trials of VX-759. The ongoing clinical trial of VX-222 will evaluate the antiviral activity of VX-222 dosed as monotherapy for three days in approximately 32 treatment-naïve patients. We expect to complete this clinical trial in the third quarter of 2009. We anticipate initiating a drug-drug interaction clinical trial of VX-222 and telaprevir in healthy volunteers in the third quarter of 2009. We plan to begin a combination clinical trial of telaprevir with VX-222 in patients with genotype 1 HCV as early as the fourth quarter of 2009 and expect to have data from this clinical trial in the first half of 2010."

b. In allocating the purchase price for ViroChem to the acquired assets and liabilities, the Company considered paragraph A51 of SFAS 141(R). ViroChem was a small biotechnology company that utilized industry-accepted techniques to identify and begin development of promising drug candidates. After reviewing ViroChem's assets, the Company did not identify any core technologies or technology-based intangible assets that related to a discovery or research and development process separate from the development programs that the Company considered. Therefore, in the Company's view, there were no intangible assets to be recognized separately from the acquired in-process research and development programs to which the Company assigned individual values.

c. The Company has evaluated ViroChem's other programs, including several clinical-stage drug candidates that ViroChem had ceased developing before the acquisition, ViroChem's preclinical drug candidates and ViroChem's lead HIV drug candidate, VCH-286. The Company determined that it would not assign any fair value to the clinical-stage drug candidates that ViroChem ceased developing prior to the acquisition because the Company believes that a market participant would assign no value to drug

candidates for which there are no clinical or non-clinical data that would support additional development. In addition, the Company determined that it should not ascribe any value to ViroChem's other preclinical programs and other technologies because market participants would be unlikely to ascribe value to these assets as a result of the uncertainties related to the safety, efficacy and commercial viability of the potential drug candidates that might emerge if additional resources where dedicated to these programs. Finally, the Company determined that VCH-286 had an estimated fair value of $7.2 million, based on development costs through the acquisition date. Based on its decision not to continue internal development of VCH-286 and its plans to potentially license rights to VCH-286, the Company believes that this valuation is reasonable. The Company added the following disclosure on page 36 of the Second Quarter 10-Q (and similar disclosure on page 22 of the Second Quarter 10-Q) as follows:

> "In addition, we considered ViroChem's other clinical drug candidates and determined that VCH-286, ViroChem's lead HIV drug candidate, had an estimated fair value of $7.2 million, based on development costs through the acquisition date, and that the other clinical drug candidates had no fair value because the clinical and non-clinical data for those drug candidates did not support further development as of the acquisition date. We also considered ViroChem's preclinical programs and other technologies and determined that because of uncertainties related to the safety, efficacy and commercial viability of the potential drug candidates, market participants would not ascribe value to these assets."

The Company hereby confirms that in future filings the Company will enhance its overall disclosures by complying with the comments provided by the SEC in the manner set forth in the responses above, subject in all cases, to any changes with respect to the facts underlying the Company's disclosures.

In addition, 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 the filing; 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 me at 617-444-6417 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 Andrews, at 617-444-6227.

Very truly yours,

/s/ Kenneth S. Boger

Kenneth S. Boger
Senior Vice President and General Counsel