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December 10, 2004

United States Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549

Attn: Sonia Barros, Esq.
Division of Corporation Finance

**Re: Vertex Pharmaceuticals Incorporated
Registration Statement on Form S-3 filed October 28, 2004
File No. 333-120055**

Ladies and Gentlemen:

This letter is intended to provide responses to comments from the staff of the Securities and Exchange Commission (the "Staff") to Vertex Pharmaceuticals Incorporated (the "Registrant") set forth in the Staff's letter to the Registrant, dated November 9, 2004 (the "Comment Letter"), regarding the Registrant's Registration Statement on Form S-3, as originally filed with the Securities and Exchange Commission on October 28, 2004 (the "Registration Statement"), and the prospectus included therein (the "Prospectus").

The relevant text of the Comment Letter is reproduced below together with the Registrant's response thereto, including text that the Registrant proposes to add to the Prospectus in response to the Staff's comments. If the Staff does not object to the Registrant's proposed responses, the Registrant will file an amendment to the Registration Statement incorporating these changes as well as certain other updates to the Prospectus.

Comment 1.

Please tell us whether UBS Securities LLC is a broker-dealer or an affiliate of a broker-dealer. If UBS Securities LLC is a broker-dealer or affiliate of a broker-dealer, tell us supplementally whether they received these shares as underwriting compensation. We may have additional comments. Please be advised that we consider the resale of securities by broker-dealers to be an indirect primary offering. In that regard, the prospectus must state that such broker-dealer is an underwriter.

Response 1.

The 5³/₄% Convertible Senior Subordinated Notes due 2011 (the "New Notes") were issued by the Registrant in an exchange offer (the "Exchange") to holders of the Registrant's 5% Subordinated Convertible Notes due 2007 (the "2007 Notes"). The Exchange was completed on September 17, 2004. Consistent with the terms of the Exchange, UBS Securities LLC ("UBS") received a New Note in exchange for 2007 Notes that it held (which had been previously purchased by UBS through the PORTAL market). UBS is a registered broker-dealer and UBS was engaged to act as a dealer-manager in connection with the Exchange and was paid cash for those services.

The securities held by UBS that are to be registered by the Registration Statement were not issued or sold as underwriting compensation.

In response to Comment 1, the Registrant proposes to add a new footnote (2) to the entry regarding UBS Securities LLC in the selling securityholder table set forth on page 38 of the Prospectus. The text of the proposed footnote would state:

(2) UBS Securities LLC, a registered broker-dealer, acted as a dealer-manager in connection with the exchange of our old notes for the new notes. The securities to be sold by UBS Securities LLC hereunder were not issued or sold as underwriting compensation.

Furthermore, the Registrant proposes to amend the seventh paragraph under the section titled "Plan of Distribution" to state:

The selling holders may be, and any underwriters, broker-dealers or agents that participate in the sale of the notes and common stock are, "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit earned by "underwriters" within the meaning of Section 2(11) of the Securities Act on any resale of the shares will constitute underwriting discounts and commissions under the Securities Act. Selling holders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

Comment 2.

Please confirm to us and also revise your disclosure to state that you will file a post-effective amendment to identify any additional selling securityholders.

Response 2.

The Registrant confirms that it will file post-effective amendments to the Registration Statement to identify additional selling securityholders as their identities become known to the Registrant, to the extent so required by the rules of the Securities and Exchange Commission. In response to Comment 2, the Registrant proposes to amend the ninth paragraph under the section titled "Plan of Distribution" to state:

The specific notes or shares of our common stock to be sold, the names of the selling holders, the respective purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if required by the rules of the Securities and Exchange Commission, a post-effective amendment to the registration statement of which this prospectus is a part.

Comment 3.

Please note that in order to substitute new names for the names of selling security holders identified in an effective registration statement you can file a Rule 424(b)(5) prospectus only if the change is not material, the number of securities or dollar amount registered does not change, and the new owners' securities can be traced to those covered by the original registration statement. A change that does not meet these requirements must be made by a post-effective amendment. In addition, you must either file a prospectus supplement or a post-effective amendment, as applicable, to substitute new names except from certain donees in the circumstances described in our telephone interpretation H.3 (see 1997 manual of telephone interpretations). Please confirm to us that you will comply with these requirements. In addition, in that regard we refer to your statement on page 38 that, "Selling holders, including their transferees, pledges or their successors, may from time to time offer and sell any or all of the notes and the common stock into which the

notes are convertible pursuant to this prospectus." Please revise your disclosure to indicate that you may need to amend this registration statement to substitute new names.

Response 3.

The Registrant notes the Staff's comment with respect to the use of Rule 424(b)(5) prospectuses and post-effective amendments and will comply with those requirements.

The Registrant proposes to amend the indicated text on page 38 of the Prospectus to state:

Selling holders, including their transferees, pledges or their successors, may from time to time offer and sell any or all of the notes and the common stock into which the notes are convertible pursuant to this prospectus. Under the rules of the Securities and Exchange Commission, we may be required to file prospectus supplements or amendments prior to the offer and sale of securities of securities held by transferees, pledgees, or successors hereunder.

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Please contact the undersigned in the event that you have any questions or concerns with respect to this matter. The undersigned can be reached at 617-444-6417. In the event that the undersigned is not available, please contact my colleague, Jeffrey Donohue, at 617-444-6131.

Very truly yours,

/s/ KENNETH S. BOGER
Kenneth S. Boger
Senior Vice President and General Counsel

