

PROSPECTUS SUPPLEMENT NO. 2 DATED JUNE 30, 2005
(TO PROSPECTUS DATED FEBRUARY 14, 2005)

VERTEX PHARMACEUTICALS INCORPORATED

\$79,313,000 5³/₄% Convertible Senior Subordinated Notes Due 2011
5,308,800 Shares of Common Stock Issuable Upon Conversion of the Notes

This Prospectus Supplement No. 2 supplements and amends the Prospectus dated February 14, 2005 (the "Prospectus"), relating to the resale from time to time by holders of our 5³/₄% Convertible Senior Subordinated Notes Due 2011 (the "Notes") and shares of our common stock issuable upon the conversion of the Notes. Such information has been obtained from the selling holders. This prospectus supplement should be read in conjunction with the Prospectus, which is to be delivered with this prospectus supplement.

The information appearing in the table below, as of the date hereof, supplements and amends the information in the table appearing under the heading "Selling Holders" in the Prospectus, and, where the name of a selling holder identified in the table below also appears in the table in the Prospectus, the information set forth in the table below regarding that selling holder supercedes the information in the Prospectus:

| Name of security holder | Principal Amount of Notes Beneficially Owned and Offered(1) | Number of shares of Common Stock Issuable Upon Conversion of the Notes that May Be Offered |
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| Amaranth Helix Limited | 2,500,000 | 167,336 |
| Bank Austria Cayman Islands Ltd. | 3,493,000 | 233,802 |
| BP Amoco PLC Master Trust | 644,000 | 43,106 |
| Consolidated Pension Plan | 325,000 | 21,754 |
| Context Convertible Arbitrage Fund, LP | 2,800,000 | 187,417 |
| Context Convertible Arbitrage Offshore LTD | 7,690,000 | 514,726 |
| Detroit Medical Center Endowment/Funded Dep. Fund (and) The Detroit Medical Center Guggenheim Portfolio Co. XV, LLC | 483,000 | 32,329 |
| Hotel Union & Hotel Industry of Hawaii Pension Plan | 179,000 | 11,981 |
| Institutional Benchmark Master Fund Ltd. | 736,000 | 49,264 |
| Institutional Benchmark Monetary Fund | 1,307,000 | 87,484 |
| National Bank of Canada | 575,000 | 38,488 |
| Quattro Fund Ltd. | 14,552,000 | 974,030 |
| Quattro Multistrategy Master Fund | 541,000 | 36,212 |
| Radcliffe SPC, Ltd. for and on behalf of the Class A Convertible Crossover Segregated Portfolio(2) | 6,610,000 | 442,436 |
| Ramius, LP(3) | 135,000 | 9,036 |
| Ramius Capital Group(3) | 645,000 | 43,173 |
| Ramius Master Fund, Ltd.(3) | 2,982,000 | 199,599 |
| Ramius Partners II, LP(3) | 129,000 | 8,635 |

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| RCG Multi Strategy Master Fund, Ltd.(3) | 195,000 | 13,052 |
| RCG Baldwin LP(3) | 413,000 | 27,644 |
| RCG Halifax Master Fund, Ltd.(3) | 552,000 | 36,948 |
| RCG Latitude Master Fund Ltd.(3) | 5,262,000 | 352,209 |
| Richmond Retirement System High Yield Fixed Income | 150,000 | 10,040 |
| SSI Blended Market Neutral L.P. | 356,000 | 23,829 |
| SSI Hedged Convertible Market Neutral L.P. | 402,000 | 26,908 |
| Sphinx Convertible Arbitrage Fund SPC | 625,000 | 41,834 |
| UBS Securities LLC(4) | 8,793,000 | 588,554 |
| Unidentified Securityholders | 14,745,000 | 986,943 |
| Univest Convertible Arbitrage Fund II Ltd (Norshield)(3) | 275,000 | 18,407 |
| Viacom Inc. Pension Plan Master Trust | 58,000 | 3,882 |
| Wachovia Securities International Ltd. | 1,000,000 | 66,935 |
| Xavex Convertible Arbitrage 5 Fund | 161,000 | 10,776 |

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- (1) The number of securities beneficially owned is determined under the rules of the Securities and Exchange Commission and the information is not necessarily indicative of beneficial ownership for any other purpose. Under those rules, beneficial ownership includes any securities as to which the individual has sole or shared voting power or investment power and also any securities which the individual has the right to acquire within 60 days after the date the selling holder provided this information, through the exercise of any stock option or other right. The inclusion in the table of securities, however, does not constitute an admission that the selling holders are direct or indirect beneficial owners of those securities. The selling holders have sole voting power and investment power with respect to all securities of capital stock listed as owned by the selling holders.
- (2) The identified securityholder may also enter into derivative transactions including the issuance of derivative securities, whether such derivative securities are listed on an options or other exchange or otherwise, through the settlement of short sales, or any combination of the foregoing. In connection with sales of the securities, the identified securityholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging positions they assume; sell securities short and deliver securities to close out short positions; loan or pledge securities to broker-dealers or other financial institutions that in turn may sell such securities; enter into option or other transactions with broker-dealers or other financial institutions that require delivery to the broker-dealer or other financial institution of securities, which the broker-dealer or other financial institution may sell pursuant to the prospectus; or enter into transactions in which a broker-dealer makes purchases as a principal for its own account or through other types of transactions.
- (3) The selling securityholder is the affiliate of a registered broker-dealer, however the selling securityholder purchased the securities in the ordinary course of business and, at the time of purchase, had no agreements or understandings, directly or indirectly, with any person to distribute the securities.
- (4) UBS Securities LLC, a registered broker-dealer, acted as a dealer-manager in connection with the exchange of the old notes for the new notes. The securities to be sold by UBS Securities LLC hereunder were not issued or sold as underwriting compensation.
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The selling holders identified above may have sold, transferred or otherwise disposed of all or a portion of their Notes since the date on which they provided the information about their Notes in transactions exempt from the registration requirements of the Securities Act.
