

PROSPECTUS SUPPLEMENT NO. 4 DATED SEPTEMBER 29, 2000 TO THE
PROSPECTUS DATED AUGUST 1, 2000 OF
VERTEX PHARMACEUTICALS INCORPORATED

This Prospectus Supplement No. 4 amends the information in the table under the caption "Selling Holders" in the Prospectus dated August 1, 2000, as previously amended, by deleting the information contained in the table regarding the Selling Security Holders with respect to the principal amount of notes and common stock of Vertex Pharmaceuticals Incorporated and substituting therefor the following table:

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(2) -----
The Adams Express Company	\$10,000,000	248,015
AIG SoundShore Holdings Ltd.	\$1,670,000	41,418
AIG SoundShore Opportunity Holding Fund Ltd.	\$2,400,000	59,523
AIG SoundShore Strategic Holding Fund Ltd.	\$1,400,000	34,722
Alexandra Global Investment Fund 1 Ltd.	\$3,000,000	74,404
Alta Partners Holdings, Inc. (3)	\$5,000,000	124,007
American Masters Fund "AG Absolute Return Series" Limited	\$1,000,000	24,801
Angelo, Gordon & Co., L.P.	\$500,000	12,400
Argent Classic Convertible Arbitrage Fund (Bermuda) L.P.	\$5,000,000	124,007
Bear, Stearns & Co. Inc.(4)	\$500,000	12,400
BNP Arbitrage SNC	\$6,500,000	161,210
Boulder II Limited	\$5,000,000	124,007
BP Amoco PLC Master Trust	\$2,200,000	54,563
BT Equity Opportunities	\$1,000,000	24,801
BT Equity Strategies	\$1,000,000	24,801
CFFX, LLC	\$3,250,000	80,605
CIBC World Markets	\$3,250,000	80,605
Credit Suisse First Boston Corporation	\$3,800,000	94,246
The Common Fund F/A/O Absolute Return Fund	\$300,000	7,440

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(2) -----
Deutsche Bank Securities	\$4,900,000	121,527
Donaldson, Lufkin & Jenrette Securities Corp.	\$500,000	12,400
Estate of James Campbell	\$950,000	23,561
First Albany Corporation	\$111,000	2,752
Grace Brothers, Ltd.	\$1,500,000	37,202
Helix Convertible Opportunities Fund Ltd	\$910,000	22,569
Helix Convertible Opportunities, L.P.	\$1,790,000	44,394
Highbridge International LLC	\$9,250,000	229,414
ITG, Inc.	\$200,000	4,960
Jefferies & Company	\$200,000	4,960
J.P. Morgan Securities, Inc.	\$4,375,000	108,506
KBC Financial Products	\$5,000,000	124,007
Key Asset Management Inc.	\$200,000	4,960
Lazard Freres & Cie Paris (5)	\$1,500,000	37,202
LDG Limited	\$200,000	4,960
McMahan Securities Co., L.P.	\$1,600,000	39,682
Merrill Lynch, Pierce, Fenner and Smith Inc. (4)	\$4,105,000	101,810
MichaelAngelo, L.P.	\$1,750,000	43,402
Morgan Stanley & Co.	\$10,000,000	248,015

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(2) -----
New York Life Insurance and Annuity Corporation	\$1,100,000	27,281
New York Life Insurance Company	\$6,500,000	161,210
Onex Industrial Partners	\$5,000,000	124,007
Pebble Capital Inc.	\$3,000,000	74,404
Quattro Fund Ltd	\$500,000	12,400
R2 Investments, LDC	\$27,600,000	684,523
Raphael II, Ltd.	\$1,000,000	24,801
RCG Multi-Strategy Account, L.P.	\$750,000	18,601
Robertson Stephens (3)	\$12,500,000	310,019
Salomon Brothers Asset Management, Inc.	\$36,930,000	915,922
SG Cowen Securities (3)	\$10,000,000	248,015
Silver Creek Limited Partnership	\$2,000,000	49,603
Susquehanna Capital Group	\$2,955,000	73,288
TQA Master Fund, LTD	\$2,700,000	66,964
TQA Master Plus Fund, LTD	\$1,000,000	24,801
Tribeca Investments LLC	\$8,500,000	210,813
UBS Warburg LLC	\$5,500,000	136,408
White River Securities LLC	\$500,000	12,400
Zurich HFR Master Fund	\$100,000	2,480

(1) The number of securities beneficially owned is determined under the rules of the SEC 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 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 or capital stock listed as owned by the selling holders.

- (2) Adjusted to reflect the two-for-one stock split of our common stock effected by way of a stock dividend distributed on August 31, 2000, and the resulting adjustment in the conversion price of the notes from \$80.64 to \$40.32 per share.
- (3) As of September 11, 2000, Alta Partners Holdings, Inc. beneficially owned 117,700 shares of our Common Stock. These shares are not part of this offering.
- (4) Acted as one of the initial purchasers of the notes.
- (5) As of May 22, 2000, Lazard Freres & Cie Paris owned 7,360 shares of our common stock. These shares are not part of this offering.

This Prospectus Supplement No. 4 should be read in conjunction with the Prospectus dated August 1, 2000