AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON FEBRUARY 25, 1997 REGISTRATION NO. 333-

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

VERTEX PHARMACEUTICALS INCORPORATED (EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

MASSACHUSETTS (STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION) 04-30129 (I.R.S. EMPLOYER IDENTIFICATION NUMBER)

130 WAVERLY STREET

CAMBRIDGE, MASSACHUSETTS 02139-4242 (617) 577-6000 (ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

KENNETH S. BOGER, ESQ. TIMOTHY B. BANCROFT, ESQ. WARNER & STACKPOLE LLP 75 STATE STREET BOSTON, MA 02109 LESLIE E. DAVIS, ESQ. TESTA, HURWITZ & THIBEAULT, LLP HIGH STREET TOWER 125 HIGH STREET BOSTON, MA 02110

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. []

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of earlier effective registration statement for the same offering. []

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. $\left[X\right]$

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES REGISTERED	AMOUNT TO BE REGISTERED(1)	PROPOSED MAXIMUM OFFERING PRICE PER SHARE(2)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(2)	AMOUNT OF REGISTRATION FEE	
Common Stock, par value \$.01 per share	2,875,000 shares	\$48.19	\$138,546,250	\$41,984	
Rights to Purchase Series A Junior					

(3)

- (1) Includes 375,000 shares of Common Stock which the Underwriters have the option to purchase from the Registrant to cover over-allotments, if any.
- (2) Estimated solely for the purpose of determining the registration fee pursuant to Rule 457 under the Securities Act of 1933, as amended, on the basis of the average of the high and low prices of the Registrant's Common Stock on February 18, 1997, as reported by Nasdaq.
- (3) No separate consideration will be received for the Rights.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT THAT SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE THE THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

PROSPECTUS (SUBJECT TO COMPLETION) DATED FEBRUARY 25, 1997

2,500,000 SHARES VERTEX PHARMACEUTICALS INCORPORATED

COMMON STOCK

All of the shares of Common Stock, \$.01 par value per share (the "Common Stock"), offered hereby are being sold by Vertex Pharmaceuticals Incorporated ("Vertex" or the "Company"). The Common Stock is quoted on the Nasdaq National Market under the symbol "VRTX." The last sale price of the Common Stock on February 20, 1997, as reported by the Nasdaq National Market, was \$50.25 per share.

THIS OFFERING INVOLVES A HIGH DEGREE OF RISK. SEE "RISK FACTORS" BEGINNING ON PAGE 6 OF THIS PROSPECTUS.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	PRICE TO PUBLIC	PROCEEDS TO COMPANY(2)	
Per Share	\$	\$	\$
Total(3)	\$	\$	\$

(1) The Company has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933. See "Underwriting."

(2) Before deducting expenses payable by the Company estimated to be \$500,000.
(3) The Company has granted the Underwriters an option, exercisable within 30 days of the date hereof, to purchase an aggregate of up to 375,000 additional shares at the Price to Public less Underwriting Discounts and Commissions to cover over-allotments, if any. If all such additional shares are purchased, the total Price to Public, Underwriting Discounts and Commissions and Proceeds to Company will be \$, \$ and \$, respectively. See "Underwriting."

The shares of Common Stock are offered by the several Underwriters named herein when, as and if received and accepted by them, and subject to their right to reject orders in whole or in part and subject to certain other conditions. It is expected that delivery of the certificates for the shares will be made at the offices of Cowen & Company, New York, New York on or about , 1997.

COWEN & COMPANY

BEAR, STEARNS & CO. INC.

ROBERTSON, STEPHENS & COMPANY

J.P. MORGAN & CO.

, 1997

LOGO

CERTAIN PERSONS PARTICIPATING IN THIS OFFERING MAY ENGAGE IN TRANSACTIONS THAT STABILIZE, MAINTAIN OR OTHERWISE AFFECT THE PRICE OF THE COMPANY'S COMMON STOCK INCLUDING BY ENTERING STABILIZING BIDS, EFFECTING SYNDICATE COVERING TRANSACTIONS OR IMPOSING PENALTY BIDS. FOR A DESCRIPTION OF THESE ACTIVITIES, SEE "UNDERWRITING."

IN CONNECTION WITH THIS OFFERING, CERTAIN UNDERWRITERS (AND SELLING GROUP MEMBERS) MAY ENGAGE IN PASSIVE MARKET MAKING TRANSACTIONS IN THE COMMON STOCK ON NASDAQ IN ACCORDANCE WITH RULE 10b-6A UNDER THE SECURITIES EXCHANGE ACT OF 1934 OR ANY SUCCESSOR RULE OR REGULATION THERETO. SEE "UNDERWRITING."

AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). Such reports, proxy statements and other information filed by the Company pursuant to the Exchange Act may be inspected and copied at the public reference facilities maintained by the Commission at 450 Fifth Street, N.W., Washington D.C. 20549 and at the Commission's Regional Offices at Seven World Trade Center, New York, New York 10048 and Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. Reports, proxy and information statements and other information filed electronically by the Company with the Commission are available at the Commission's World Wide Web site at http://www.sec.gov. Copies of such materials can be obtained from the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. The Company's Common Stock is quoted on the Nasdaq National Market, and such reports, proxy statements and other information can be inspected at the offices of Nasdaq Operations, 1735 K Street, N.W., Washington, D.C. 20006.

The Company has filed with the Commission a Registration Statement on Form S-3 under the Securities Act of 1933, as amended (the "Securities Act"), with respect to the Common Stock offered hereby. This Prospectus, which constitutes part of the Registration Statement, omits certain of the information contained in the Registration Statement and the exhibits and schedules thereto on file with the Commission pursuant to the Securities Act and the rules and regulations of the Commission thereunder. Statements contained in this Prospectus as to the contents of any contract or other document referred to are not necessarily complete, and in each instance, reference is made to the copy of such contract or other document filed as an exhibit to the Registration Statement, each such statement being qualified in all respects by such reference. The Registration Statement, including exhibits and schedules thereto, may be inspected and copied at the facilities of the Commission referred to above.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents or portions of documents filed by the Company (File No. 0-19319) with the Commission are incorporated herein by reference:(a) Annual Report on Form 10-K for the fiscal year ended December 31, 1995, excluding Item 8 -- Financial Statements and Supplementary Data; (b) Quarterly Report on Form 10-Q for the quarter ended March 31, 1996, excluding Item 1, Financial Statements; (c) Quarterly Report on Form 10-Q/A for the quarter ended March 31, 1996 filed with the Commission on May 22, 1996, excluding Item 1 -- Financial Statements; (d) Quarterly Report on Form 10-Q/A-2 for the quarter ended March 31, 1996 filed with the Commission on July 23, 1996, excluding Item 1 -- Financial Statements; (e) Quarterly Report on Form 10-Q for the quarter ended June 30, 1996, excluding Item 1 -- Financial Statements; (g) Current Report on Form 8-K filed with the Commission on Form 10-Q for the quarter ended September 30, 1996, excluding Item 1 -- Financial Statements; (g) Current Report on Form 8-K filed with the Commission on May 30, 1991; and (i) the description of rights to purchase Series A Junior Participating Preferred Stock, par value \$.01 per share, contained in the Commission on May 30, 1991.

All reports and other documents filed by the Company pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Prospectus and prior to the termination of this offering shall be deemed to be incorporated by reference herein and to be a part hereof from the date of the filing of such reports and documents. Any statement contained in a document, all or a portion of which is incorporated by reference herein, shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained or incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Prospectus.

Upon written or oral request, the Company will provide without charge to each person to whom this Prospectus is delivered a copy of any or all of such documents which are incorporated herein by reference (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this Prospectus incorporates). Requests for such copies should be directed to Thomas G. Auchincloss, Jr., Vice President of Finance and Treasurer, Vertex Pharmaceuticals Incorporated, 130 Waverly Street, Cambridge, Massachusetts 02139-4242, (617) 577-6000. $\label{eq:Vertex} Vertex(R), \ the \ Vertex \ logo \ and \ CLEC(R) \ are \ registered \ trademarks \ and \ ChiroCLEC(TM) \ and \ PeptiCLEC(TM) \ are \ trademarks \ of \ Vertex.$

Unless the context requires otherwise, "Vertex" or the "Company" refers to Vertex Pharmaceuticals Incorporated and its subsidiaries.

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by the more detailed information and financial data appearing elsewhere or incorporated by reference in this Prospectus. Except as otherwise noted, all information in this Prospectus assumes no exercise of the Underwriters' over-allotment option. Investors should consider carefully the information set forth under the heading "Risk Factors."

THE COMPANY

Vertex is engaged in the discovery, development and commercialization of novel, small molecule pharmaceuticals for the treatment of diseases for which there are currently limited or no effective treatments. The Company is a leader in the use of structure-based drug design, an approach to drug discovery that integrates advanced biology, biophysics and chemistry in a coordinated and simultaneous fashion. The Company believes that this integrated approach is applicable to therapeutic targets in a broad range of diseases. Vertex's goal is to create a portfolio of highly specific, proprietary, small molecule drugs based on its knowledge of the atomic structure of proteins involved in the control of disease processes. The Company's drug candidates for the treatment of human immunodeficiency virus ("HIV") infection and acquired immune deficiency syndrome ("AIDS"), cancer multidrug resistance ("MDR") and two genetic hemoglobin disorders are currently undergoing human clinical trials. In addition, the Company has research programs aimed at developing orally available small molecule compounds to treat autoimmune diseases, inflammatory diseases, neurodegenerative diseases and hepatitis C infection.

The Company currently has products undergoing clinical trials in the following disease areas:

HIV Infection and AIDS: Vertex is developing orally deliverable antiviral drugs to treat HIV infection and AIDS. The Company is collaborating with Glaxo Wellcome plc. ("Glaxo Wellcome") and Kissei Pharmaceutical Co., Ltd. ("Kissei") in the development of its HIV protease inhibitor, VX-478. In February 1997, Glaxo Wellcome began a multi-center Phase III clinical trial in the United States, Canada and Europe to assess the safety and efficacy of VX-478 in combination with AZT and 3TC. Approximately 290 HIV-positive adults are expected a multi-center Phase III clinical trial in the United States and Europe to assess the safety and efficacy of VX-478 in children. In addition, through a series of clinical studies underway or planned by Glaxo Wellcome, the use of VX-478 will be assessed in combination with the Glaxo Wellcome anti-HIV agents AZT, 3TC and 1592U89, as well as with other HIV protease inhibitors. Vertex expects that Kissei will begin Phase II/III efficacy trials in 1997 in HIV-positive patients that will be designed based on clinical data from Glaxo Wellcome. In addition, VX-478 is being evaluated as a single agent through a collaboration with the AIDS Clinical Trial Group (the "ACTG"), Glaxo Wellcome and Kissei. In January 1997, Glaxo Wellcome reported preliminary results from the Phase I/II clinical trial suggesting that VX-478 is well-tolerated and displays potent antiviral activity. In January 1997, Glaxo Wellcome also reported preliminary data from the Phase I/II clinical trial suggesting that HIV in participants in this trial did not develop resistance to VX-478 administered as a single agent over four weeks of administration.

Cancer MDR: Vertex is developing novel compounds to treat and prevent the occurrence of drug resistance associated with the failure of cancer chemotherapy by inhibiting cellular mechanisms responsible for MDR. Certain cellular mechanisms cause chemotherapeutic drug resistance in a broad range of human cancers, including in a variety of solid tumors of the liver, breast, ovary, lung and colon/rectum and in a number of blood cancers. In June 1996, Vertex commenced a Phase II multi-center clinical trial to assess the safety and efficacy of the co-administration of VX-710 and doxorubicin in patients with liver cancer. Vertex plans to initiate in 1997 a Phase II multi-center clinical trial to assess the safety and efficacy of co-administration of VX-710 and paclitaxel in patients with breast cancer. The Company is collaborating with BioChem Therapeutic, Inc. ("BioChem"), a subsidiary of BioChem Pharma (International) Inc., for the development and commercialization of VX-710 in Canada. BioChem is planning to initiate in 1997 Phase II clinical trials of VX-710 in combination with doxorubicin in patients with soft tissue sarcoma and in combination with paclitaxel in patients with

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ovarian cancer. Preliminary results of an earlier Phase I/II trial suggest that the VX-710/doxorubicin regimen was well-tolerated and that VX-710 was blocking the targeted protein implicated in MDR. In April 1996, the Company commenced a Phase I/II dose-escalating clinical trial with a second MDR inhibitor, VX-853, an orally administered compound, in combination with doxorubicin in patients with solid tumors.

Hemoglobin Disorders: Vertex is developing drugs to treat sickle cell disease and beta thalassemia, inherited blood disorders for which treatment is currently limited. Vertex is collaborating with Alpha Therapeutic Corporation ("Alpha") and Ravizza Farmaceutici S.p.A. ("Ravizza") on the development of VX-366. In 1996, Ravizza completed a pilot Phase II trial of VX-366 in Italy in patients with beta thalassemia.

The Company's most advanced preclinical and research programs are in the following disease areas:

Autoimmune Diseases: The Company is developing orally available drugs to treat autoimmune diseases by blocking inosine monophosphate dehydrogenase ("IMPDH"), an enzyme which controls DNA synthesis in lymphocytes. The activation and proliferation of lymphocytes are associated with a variety of autoimmune diseases, including asthma, rheumatoid arthritis and systemic lupus, as well as with transplant rejection. In December 1996, Vertex selected VX-497 as a lead drug development candidate for autoimmune diseases and began preclinical development of the compound. Vertex intends to evaluate VX-497 for psoriasis, an autoimmune disease of the skin, as the first clinical indication for the compound. The Company plans to initiate clinical trials in 1998 to evaluate the safety and pharmacokinetics of VX-497 in healthy volunteers.

Inflammation: Vertex is developing novel drugs to treat acute and chronic inflammatory diseases. The Company is collaborating with Hoechst Marion Roussel ("HMR") for the development of compounds to block interleukin-1 beta converting enzyme ("ICE"), which mediates the production and release of the inflammatory cytokine IL-1 beta, as well as the production of gamma interferon. In February 1997, Vertex selected VX-740 as a lead drug development candidate for inflammatory diseases.

Additional Research Programs: The Company has an ongoing research program in collaboration with Glaxo Wellcome to develop additional classes of HIV protease inhibitors. This research is focused on designing compounds with resistance profiles distinct from VX-478. The Company is also developing neurophilin compounds to treat neurodegenerative diseases. These compounds have been shown to stimulate nerve growth in disease models. The Company also is conducting research to design orally available drugs to act as (i) inhibitors of Caspase CPP32 for the treatment of neurodegenerative diseases, (ii) inhibitors of hepatitis C protease for the treatment of hepatitis C infection and (iii) inhibitors of MAP kinases for the treatment of inflammatory diseases.

The Company believes it has developed a technological advantage in the process of drug discovery and development due to its ability to integrate a variety of disciplines and techniques to design synthetic compounds based on the detailed three dimensional structure of protein targets. The Company also believes that its structure-based drug design approach improves the chances for accelerated discovery, optimization and development of novel synthetic compounds that are specific to the drug target and have desirable pharmacokinetic and safety profiles.

In addition to the Company's core scientific platform for drug discovery, the Company has established capabilities in product development, including preclinical testing and process chemistry. The Company also is manufacturing through third parties each of its lead compounds for use in preclinical and clinical trials. The Company's business strategy is to form collaborations with pharmaceutical companies in programs for which they can provide resources and access to comptencies complementary to Vertex's in-house capabilities.

Vertex has its headquarters and research facilities at 130 Waverly Street, Cambridge, Massachusetts 02139, and its telephone number is (617) 577-6000. The Company was incorporated under the laws of the Commonwealth of Massachusetts in 1989.

THE OFFERING

Common Stock offered	2,500,000 shares
Common Stock to be outstanding after the	
offering	23,597,117 shares(1)
Use of proceeds	
	programs, including clinical trials, and
	other general corporate purposes.
Nasdaq National Market symbol	VRTX

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(1) Based on the number of shares of Common Stock outstanding as of December 31, 1996. Does not include 4,032,609 shares of Common Stock reserved for issuance upon exercise of outstanding options as of December 31, 1996.

SUMMARY CONSOLIDATED FINANCIAL DATA

	YEAR ENDED DECEMBER 31,		
	1994	1995	1996
	(IN THOUSANDS,	EXCEPT PER SHA	RE AMOUNTS)
CONSOLIDATED STATEMENT OF OPERATIONS DATA: Revenues:			
Collaborative and other research and development revenues Interest income	\$ 19,571 3,574	\$ 22,081 5,453	\$ 13,341 5,257
Total revenues Costs and expenses:	23,145	27,534	18,598
Research and development General and administrative License payment	34,761 5,540	41,512 7,069	35,212 7,929 15,000
Interest	439	481	462
Total costs and expenses	40,740	49,062	58,603
Net (loss)	\$(17,595) ========	\$(21,528) =======	\$(40,005) =======
Net (loss) per common share Weighted average number of common shares outstanding	\$ (1.11) 15,818	\$ (1.25) 17,231	\$ (2.13) 18,798

	DECEMBER 31, 1996	
	ACTUAL	AS ADJUSTED(2)
CONSOLIDATED BALANCE SHEET DATA: Cash, cash equivalents and short-term investments Total assets Obligations under capital leases, excluding current portion Accumulated deficit Total stockholders' equity	143,499 5,617 (96,944)	\$249,203 262,343 5,617 (96,944) 249,670

(1) Adjusted to reflect the sale of the 2,500,000 shares of Common Stock offered hereby, assuming a public offering price of \$50.25 per share and net proceeds to the Company of approximately \$118,844,000.

This Prospectus contains, in addition to historical information, forward-looking statements that involve risks and uncertainties. The Company's actual results could differ materially from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences include those discussed in "Risk Factors," as well as those discussed elsewhere in this Prospectus.

RISK FACTORS

An investment in the shares of Common Stock offered hereby involves a high degree of risk. Prospective investors should consider the following factors, in addition to the other information in this Prospectus, in evaluating the Company and its business before purchasing any shares of the Common Stock offered hereby.

EARLY STAGE OF DEVELOPMENT; TECHNOLOGICAL UNCERTAINTY

The Company was founded in 1989 and has not generated any pharmaceutical product sales. To achieve profitable operations, the Company, alone or with others, must successfully develop, clinically test, market and sell its products. Any products resulting from the Company's product development efforts are not expected to be available for sale in the near future, if at all.

The development of new pharmaceutical products is highly uncertain and subject to a number of significant risks. Potential products that appear to be promising at early stages of development may not reach the market for a number of reasons. Such reasons include the possibilities that the potential products are found ineffective or cause harmful side effects during preclinical testing or clinical trials, fail to receive necessary regulatory approvals, are difficult or uneconomical to manufacture on a large scale, fail to achieve market acceptance or are precluded from commercialization by proprietary rights of third parties.

The products that the Company is pursuing will require extensive additional development, testing and investment, as well as regulatory approvals, prior to commercialization. No assurance can be given that the Company's product development efforts will be successful, that required regulatory approvals will be obtained or that any products, if introduced, will be commercially successful. Further, the Company has no sales and marketing capabilities, and even if the Company's products in development are approved for marketing, there can be no assurance that the Company will be able to develop such capabilities. In addition, only a limited number of drugs developed through structure-based drug design have completed clinical trials successfully, been approved by the U.S. Food and Drug Administration ("FDA") and been marketed. One of the Company's potential products, VX-478, is an HIV protease inhibitor which is currently in Phase II clinical trials. The Company and its collaborative partners recently began Phase III clinical trials. To date, HIV has been shown to develop resistance to antiviral drugs, including currently marketed HIV protease inhibitors. There can be no assurance that such disease resistance or other factors will not limit the efficacy of the Company's HIV protease inhibitor. The clinical efficacy of the suppression of mechanisms of action of MDR in chemotherapy in the treatment of cancer is unproven, and, therefore, there can be no assurance that the Company's MDR compounds in development will improve the efficacy of chemotherapy. There also can be no assurance that drug candidates being pursued by the Company will be safe and efficacious, will receive regulatory approvals or will result in commercially successful products. If any of the Company's development programs is not successfully completed, required regulatory approvals are not obtained, or products for which approvals are obtained are not commercially successful, the Company's business, financial condition and results of operations would be materially adversely affected. See "Business -- Product Development and Research Programs."

UNCERTAINTIES RELATED TO CLINICAL TRIALS

Before obtaining required regulatory approvals for the commercial sale of products under development, the Company must demonstrate through preclinical studies and clinical trials that such products are safe and efficacious for use in each target indication. The results of preclinical and initial clinical trials of products under development by the Company are not necessarily predictive of results that will be obtained from large-scale clinical testing, and there can be no assurance that clinical trials of products under development will demonstrate the safety and efficacy of such products or will result in a marketable product. The safety and efficacy of a therapeutic product under development by the Company must be supported by extensive data from clinical trials. A number of companies have suffered significant setbacks in advanced clinical trials, despite promising results in earlier trials. The Company currently has four product candidates undergoing clinical trials, VX-478, VX-710, VX-853 and VX-366. In addition, the Company has a number of products undergoing preclinical development. The data observed to date is preliminary, and there can be no assurance that the results of ongoing and future trials will be consistent with results observed in earlier clinical trials or will be sufficient for approval. The failure to demonstrate adequately the safety and efficacy of a therapeutic drug under development could delay or prevent regulatory approval of the product and could have a material adverse effect on the Company. In addition, the FDA may require additional clinical trials, which could result in increased costs and significant development delays.

The administration alone or in combination with other drugs of any product developed by the Company may produce undesirable side effects in humans. The occurrence of such side effects could interrupt, delay or halt clinical trials of such products and could ultimately prevent their approval by the FDA or foreign regulatory authorities for any or all targeted indications. The Company or the FDA may suspend or terminate clinical trials at any time if it is believed that the trial participants are being exposed to unacceptable health risks. Even after approval by the FDA and foreign regulatory authorities, products may later exhibit adverse effects that discourage widespread use or necessitate their withdrawal from the market. There can be no assurance that any products under development by the Company will be safe when administered to patients.

The rate of completion of clinical trials of the Company's products is dependent upon, among other factors, the rate of patient accrual. Patient accrual is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial and the availability of clinical trial material. Delays in planned patient enrollment in clinical trials may result in increased costs, program delays or both, which could have a material adverse effect on the Company. There can be no assurance that if clinical trials are completed the Company will be able to submit a New Drug Application ("NDA") or that any such application will be reviewed and approved by the FDA in a timely manner, if at all. See "Business -- Government Regulation."

DEPENDENCE ON COLLABORATIVE PARTNERS

The Company is engaged in research and development collaborations with Glaxo Wellcome, HMR, Kissei, Alpha and BioChem pursuant to which these parties have agreed to fund portions of the Company's research and development programs and/or to conduct certain research and development relating to specified products, in exchange for certain technology, product and marketing rights relating to those products. Some of the Company's current corporate partners have certain rights to control the planning and execution of product development and clinical programs, and there can be no assurance that such corporate partners' rights to control aspects of such programs will not impede the Company's ability to conduct such programs in accordance with the schedules and in the manner currently contemplated by the Company for such programs.

If any of the Company's corporate collaborators were to terminate its relationship with Vertex, it could have a material adverse effect on the Company's ability to fund related and other programs and to develop, manufacture and market any products that may have resulted from such collaboration. There can be no assurance that these collaborations will be completed or successful, or that the collaborative partners will not pursue alternative means of developing treatments for the diseases targeted by their collaborative programs with the Company. Glaxo Wellcome has the right to terminate the research collaboration under its agreement with the Company without cause at any time upon twelve months' notice and has the right to terminate the license arrangements under its agreement with the Company without cause upon twelve months' notice, provided such notice is not given before the research collaboration has been terminated. Termination by Glaxo Wellcome of the research collaboration under its agreement with the Company will relieve Glaxo Wellcome of its obligation to make further research support payments under the agreement. Termination by Glaxo Wellcome of the license arrangements under the agreement will relieve it of its obligation to make further commercialization and development milestone and royalty payments and will end any license

granted to Glaxo Wellcome by Vertex. HMR has the right to terminate its agreement with the Company without cause upon twelve months' notice at any time. Termination by HMR will relieve HMR of any further payment obligations under its agreement with the Company. In addition, for a period of one year after any such termination, HMR retains the right to select one or more compounds for development and to license such compound or compounds from Vertex, provided HMR resumes research funding and commercialization milestone payments and makes all such payments that would otherwise have been due but for such termination. Alpha has the right to terminate its agreement with the Company without cause upon six months' notice at any time. Termination will relieve Alpha of any further payment obligations under its agreement with the Company and will also terminate any license granted to Alpha by Vertex. BioChem has the right to terminate its agreement with the Company without cause upon six month's notice at any time after May 8, 1997. Termination will relieve BioChem of any further payment obligations under its agreement with the Company and will terminate any time after May 8, 1000. Termination will relieve BioChem of any further payment obligations under its agreement with the Company and will terminate any license granted to BioChem thereunder.

The Company may seek additional collaborative arrangements to develop and commercialize its products in the future. There can be no assurance that the Company will be able to establish acceptable collaborative arrangements in the future or that such collaborative arrangements will be successful. In addition, there can be no assurance that collaborative partners will not pursue alternative technologies or develop alternative compounds either on their own or in collaboration with others, including the Company's competitors, as a means for developing treatments for the diseases targeted by their collaborative programs with the Company or that disagreements over rights to technology, other proprietary information or the course of the research and development program will not occur. Such events could result in the delay or cancellation of programs or product introduction even if regulatory approvals are obtained. See "Business -- Corporate Collaborations."

RAPID TECHNOLOGICAL CHANGE AND COMPETITION

The Company is engaged in pharmaceutical fields characterized by extensive research efforts, rapid technological progress and intense competition. There are many public and private companies, including pharmaceutical companies, chemical companies and biotechnology companies, engaged in developing products for the human therapeutic applications targeted by Vertex. Further, the Company believes that interest in the application of structure-based drug design and related technologies may continue and may accelerate as the technologies become more widely understood. The Company is aware of efforts by others to develop products in each of the areas in which the Company has products in development. For example, Merck & Co., Inc., Abbott Laboratories, Inc. and Hoffmann-La Roche have HIV protease inhibitors which have been approved by the FDA for marketing, and Agouron Pharmaceuticals, Inc. has filed an NDA for an HIV protease inhibitor. The Company is also aware of other companies that have HIV protease inhibitors in development. There also are a number of competitors that have products under development for the treatment of MDR in cancer and for the treatment of hemoglobin disorders. In order for the Company to compete successfully in these areas, it must demonstrate improved safety, efficacy, ease of manufacturing and market acceptance over its competitors, who have received regulatory approval and are currently marketing. Furthermore, academic institutions, governmental agencies and other public and private research organizations are conducting research to develop technologies and products that may compete with those under development by the Company. In addition, other technologies are, or may in the future become, the basis for competing products. There can be no assurance that the Company's competitors will not succeed in developing technologies and products that are more effective than any being developed by the Company or that would render the Company's technology and products obsolete or noncompetitive. In addition, there can be no assurance that the Company's products in development will be able to compete effectively with products which are currently on the market.

Many of the Company's competitors have substantially greater financial, technical and human resources than those of the Company. In addition, many of the Company's competitors have significantly greater experience than the Company in conducting preclinical testing and human

clinical trials of new pharmaceutical products, and in obtaining FDA and other regulatory approvals of products. Accordingly, certain of the Company's competitors may succeed in obtaining regulatory approval for products more rapidly than the Company. If the Company obtains regulatory approval and commences commercial sales of its products, it will also compete with respect to manufacturing efficiency and sales and marketing capabilities, areas in which it currently has no experience. See "Business -- Competition."

MANUFACTURING UNCERTAINTIES; RELIANCE ON THIRD PARTY MANUFACTURERS

The Company's ability to conduct clinical trials and its ability to commercialize its potential products will depend, in part, on its ability to manufacture its products on a large scale, either directly or through third parties, at a competitive cost and in accordance with FDA and other regulatory requirements. Furthermore, for all of the Company's drugs in development, completion of clinical trials and submission of an NDA will be subject to the establishment of a commercial formulation and manufacturing process. As manufacturing process development and formulation activities are ongoing throughout the development process, the Company or its collaborators may encounter difficulties at any time that could result in delays in clinical trials, regulatory submissions and commercialization of its products, or cause potential negative financial and competitive consequences. Manufacturing process development and formulation activities for VX-478 by the Company and Glaxo Wellcome are continuing while clinical trials are underway. There can be no assurance that such activities will be completed in a timely and successful manner, if at all. The failure to complete such activities in a timely and successful manner could have a material adverse effect on the business, financial condition or results of operations of the Company.

The Company currently does not have the capacity to manufacture its potential products and is dependent on third party manufacturers or collaborative partners for the production of its compounds for preclinical research and clinical trial purposes. The Company expects to be dependent on such manufacturers or collaborative partners for some or all commercial production of any of its compounds that are approved for marketing. In the event that the Company is unable to obtain contract manufacturing, or obtain such manufacturing on commercially reasonable terms, it may not be able to conduct or complete clinical trials or, if FDA approval is obtained, commercialize its products as planned. The Company has no experience in manufacturing pharmaceutical or other products or in conducting manufacturing testing programs required to obtain FDA and other regulatory approvals, and there can be no assurance that the Company will successfully develop such capabilities.

Some of the Company's current corporate partners have certain manufacturing rights with respect to the Company's products under development, and there can be no assurance that such corporate partners' manufacturing rights will not impede the Company's ability to conduct the development programs and commercialize any resulting products in accordance with the schedules and in the manner currently contemplated by the Company. See "Business -- Manufacturing."

EXTENSIVE GOVERNMENT REGULATION; UNCERTAINTY OF PRODUCT CLEARANCE AND APPROVAL

The FDA and comparable agencies in foreign countries impose substantial requirements on the introduction of therapeutic pharmaceutical products through lengthy and detailed laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures. Satisfaction of these requirements typically takes several years or longer and may vary substantially based upon the type, complexity and novelty of the pharmaceutical product. The Company has had only limited experience in conducting preclinical testing and human clinical trials. In addition, the Company has not received FDA or other regulatory approvals for any of its product candidates. Data obtained from preclinical and clinical activities are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. In addition, delays or rejections may be encountered based on changes in, or additions to, regulatory policies for drug approval during the period of product development and regulatory review.

The effect of government regulation may be to delay or prevent the commencement of clinical trials or marketing of Company products, if any are developed and submitted for approval, for a considerable period of time, to impose costly procedures upon the Company's activities and to provide a competitive advantage to larger companies or companies more experienced in regulatory affairs that compete with the Company. There can be no assurance that FDA or other regulatory approval for clinical trials or marketing of any products developed by the Company will be granted on a timely basis or at all. Delay in obtaining or failure to obtain such approvals would adversely affect the marketing of the Company's products and the Company's liquidity and capital resources. Moreover, even if approval is granted, such approval may entail limitations on the indicated uses for which a compound may be marketed. Even if such regulatory approval is obtained, a marketed drug or compound and its manufacturer are subject to continual review, and later discovery of previously unknown problems with a product or manufacturer may result in restrictions on such product or manufacturer, including withdrawal of the product from the market. Failure to comply with applicable regulatory requirements can, among other things, result in fines, suspensions of regulatory approvals, product recalls, operating restrictions and criminal prosecution. Further, additional government regulation may be established which could prevent or delay regulatory approval of the Company's products.

The Company has obtained orphan drug status for VX-366 for the treatment of beta thalassemia and sickle cell disease and may apply for orphan drug status for certain indications of MDR in cancer. Orphan drug status may, under present regulations, entitle the Company to certain marketing exclusivity and tax benefits. While the marketing exclusivity of an orphan drug would prevent other sponsors from obtaining approval of the same compound for the same indication, it would not prevent chemically distinct drugs from being approved for the same use. There can be no assurance that the Company will receive FDA orphan drug status for any of its compounds under development for which the Company seeks that status. Moreover, there can be no assurance that the scope of protection or the level of exclusivity that is currently afforded by orphan drug status will remain in effect in the future. See "Business -- Government Regulation."

The Company's research and development activities involve the controlled use of hazardous materials, chemicals and various radioactive compounds. The risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of an accident, the Company could be held liable for any damages or fines that result, and the liability could have a material adverse effect on the Company's business, financial condition and results of operations. There can be no assurance that statutes or regulations, applicable to the Company's business which impose substantial additional costs or otherwise materially adversely affect the Company's operations, will not be adopted.

UNCERTAINTY RELATED TO PATENTS AND PROPRIETARY INFORMATION

The Company's success will depend, in part, on its ability to obtain United States and foreign patent protection for its products and their uses, to preserve its trade secrets and to operate without infringing the proprietary rights of third parties. Because of the substantial length of time and expense associated with bringing new products through development and regulatory approval to the marketplace, the pharmaceutical industry places considerable importance on obtaining patents and maintaining trade secret protection for new technologies, products and processes. Patent protection may not be available. however, for compounds for use in certain medical indications, without a demonstration of how to use the compounds and proof in clinical trials that such compounds may be useful for such target indications. As of February 20, 1997, the Company had a total of six United States patents and 63 pending United States patent applications. As of that date, the Company also had a nonexclusive, worldwide license under certain G.D. Searle & Company ("Searle") patent applications claiming HIV protease inhibitors. The Company also has been granted an exclusive license under four United States patents, one of which is subject to a reissue application. The Company also has filed foreign counterparts to some of its United States patents and patent applications. There can be no

assurance that patents will issue from any of the Company's pending or future patent applications. There can be no assurance that any issued, licensed, pending or future patent will not be infringed by the products of others or provide sufficient protection to exclude others from the Company's present or future technology or products. The Company has in the past licensed and may in the future license patent rights from others. There can be no assurance, however, that such licenses will provide adequate protection for the Company's products.

Issued United States patents are presumed valid under United States patent law. No assurance can be given, however, that one or more of the Company's issued patents will not be declared invalid by a court. Legal standards relating to the validity of patents and the proper scope of their claims in the biopharmaceutical field are still evolving, and there is no consistent law or policy regarding the valid breadth of claims in biopharmaceutical patents or the effect of prior art on them. Furthermore, no assurance can be given as to the degree of protection any patents will afford to the Company's technology or as to the Company's ability to avoid infringing the claims of the patents held by third parties. Further, there can be no assurance that a license to such patents would be available on terms acceptable to the Company, if at all. There also can be no assurance that any patents issued to or licensed by the Company will not be infringed by others.

In addition to being a potential party to patent infringement litigation, the Company could become involved in interference proceedings declared by the United States Patent and Trademark Office. Defense and prosecution of patent claims, as well as participation in interference proceedings, can be expensive and time-consuming, even in those instances in which the outcome is favorable to the Company. If the outcome of any such litigation or proceeding were adverse, the Company could be subject to significant liabilities to third parties, could be required to obtain licenses from third parties or could be required to cease sales of the affected products, any of which could have a material adverse effect on the Company.

The Company has licensed on an exclusive basis four United States patents and one United States reissue application from Children's Hospital Medical Center of Oakland (California) ("Children's Hospital"). Three of these patents and the reissue application claim the use of compounds, including VX-366, in the treatment of hemoglobin disorders, including sickle cell disease and beta thalassemia. Because Children's Hospital did not foreign file the application corresponding to the reissue application within one year of filing its corresponding United States application, the Company's foreign patent rights may be limited. In addition, there can be no assurance that others will not develop independently substantially equivalent technology, obtain access to the Company's know-how or be issued patents which may prevent the sale of the Company's products or require licensing and the payment of significant fees or royalties by the Company in order for it to carry on its business. Furthermore, there can be no assurance that any such license will be available.

The Company's management and scientific personnel have been recruited from other pharmaceutical and biotechnology companies and academic institutions. In many cases these individuals are conducting research in similar areas with which they were involved prior to joining Vertex. As a result, the Company, as well as these individuals, could be subject to allegations of violation of trade secrets and similar claims. See "-- Dependence on Collaborative Partners" and "Business -- Corporate Collaborations" and "-- Patents and Proprietary Information."

FUTURE CAPITAL NEEDS; UNCERTAINTY OF ADDITIONAL FUNDING

The Company expects to incur substantially increased research and development and related supporting expenses as it designs and develops existing and future compounds and undertakes clinical trials of potential drugs resulting from such compounds. The Company also expects to incur substantial administrative and commercialization expenditures in the future and substantial expenses related to the filing, prosecution, defense and enforcement of patent and other intellectual property claims. The Company's future capital requirements will depend on many factors, including the progress of its research and development programs, the scope and results of preclinical studies and clinical trials, the

cost, timing and outcome of regulatory reviews, the costs involved in filing, prosecuting and enforcing patent claims, competing technological and market developments, the establishment of additional collaborative arrangements and the cost of manufacturing facilities and of commercialization activities and arrangements. The Company anticipates that it will finance these substantial cash needs with the net proceeds of this offering and its existing cash reserves, together with interest earned thereon, future payments under its collaborative agreements with Glaxo Wellcome, HMR, Kissei, Alpha and BioChem, facilities and equipment financing and additional collaborative agreements. To the extent that funds from these sources are not sufficient to fund the Company's activities, it will be necessary to raise additional funds through public offerings or private placements of debt or equity securities or other methods of financing. Any equity financings could result in dilution to the Company's then existing stockholders. Any debt financing, if available at all, may be on terms which, among other things, restrict the Company's ability to pay dividends (although the Company does not intend to pay dividends for the foreseeable future). If adequate funds are not available, the Company may be required to curtail significantly or discontinue one or more of its research, drug discovery or development programs, including clinical trials, or attempt to obtain funds through arrangements with collaborative partners or others that may require the Company to relinquish rights to certain of its technologies or products in research or development. No assurance can be given that additional financing will be available on acceptable terms, if at all. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

HISTORY OF OPERATING LOSSES AND ACCUMULATED DEFICIT

Vertex has incurred losses since its inception in January 1989. As of December 31, 1996, the Company's accumulated deficit was approximately \$96.9 million. Losses have resulted principally from costs incurred in research and development of the Company's compounds in development, including clinical trials and material manufacturing costs, the Company's other research programs and from general and administrative costs. These costs have exceeded the Company's revenues, which to date have been generated solely from collaborative arrangements, interest income and research grants. The Company expects to incur additional significant operating losses in the future and does not expect to achieve profitability from sales of its products in development for several years, if ever. The Company expects that losses will fluctuate from quarter to quarter and that such fluctuations may be substantial. There can be no assurance that the Company will ever achieve product revenues or profitable operations. Based on the Internal Revenue Code of 1986, as amended, and changes in the Company's ownership, utilization of net operating loss carryforwards and research and development credits for federal income tax purposes may be subject to annual limitations. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

UNCERTAINTY RELATED TO PHARMACEUTICAL PRICING AND REIMBURSEMENT

The Company's ability to commercialize its products successfully will depend in part on the extent to which appropriate reimbursement levels for the cost of such products and related treatment are obtained from government authorities, private health insurers and other organizations, such as health maintenance organizations ("HMOs"). Third party payors and government authorities are continuing efforts to contain or reduce the cost of health care. For example, in certain foreign markets, pricing and/or profitability of prescription pharmaceuticals are subject to government control. There can be no assurance that similar controls will not be implemented in the United States. Also, the trend toward managed health care in the United States and the concurrent growth of organizations such as HMOs, which could control or significantly influence the purchase of health care services and products, may result in lower prices for the Company's products. The cost containment measures that health care providers and third party payors are instituting and any proposed or future health care reform measures, including any reductions in government reimbursement programs such as Medicaid and Medicare, could affect the Company's ability to sell its products and may have a material adverse effect on the Company.

The success of the Company's products in the United States and other significant markets will depend, in part, upon the extent to which a consumer will be able to obtain reimbursement for the cost of such products from government health administration authorities, third-party payors and other organizations. Significant uncertainty exists as to the reimbursement status of newly approved therapeutic products. Even if a product is approved for marketing, there can be no assurance that adequate reimbursement will be available. The Company is unable to predict what additional legislation or regulation relating to the health care industry or third-party coverage and reimbursement may be enacted in the future or what effect the legislation or regulation would have on the Company's business. Failure to obtain reimbursement could have a material adverse effect on the Company.

ABSENCE OF SALES AND MARKETING EXPERIENCE

The Company currently has no experience in marketing or selling pharmaceutical products. The Company must either develop a marketing and sales force or enter into arrangements with third parties to market and sell any of its product candidates which are approved by the FDA. In the territories where the Company retains marketing and co-promotion rights, there can be no assurance that the Company will successfully develop its own sales and marketing experience or that it will be able to enter into marketing and sales agreements with others on acceptable terms, if at all. If the Company develops its own marketing and sales capability, it will compete with other companies that currently have experienced and well-funded marketing and sales operations. To the extent that the Company has or enters into co-promotion or other sales and marketing arrangements with other companies, any revenues to be received by the Company will be dependent on the efforts of others, and there can be no assurance that such efforts will be successful.

DEPENDENCE ON KEY MANAGEMENT AND QUALIFIED PERSONNEL

The Company is highly dependent upon the efforts of its senior management and scientific team. The loss of the services of one or more members of the senior management and scientific team might impede the achievement of the Company's development objectives. Due to the specialized scientific nature of the Company's business, the Company is also highly dependent upon its ability to attract and retain qualified scientific, technical and key management personnel. There is intense competition for qualified personnel in the areas of the Company's activities, and there can be no assurance that the Company will be able to continue to attract and retain qualified personnel necessary for the development of its existing business and its expansion into areas and activities requiring additional expertise, such as clinical testing, government approvals, production and marketing. See "Management."

PRODUCT LIABILITY AND AVAILABILITY OF INSURANCE

The Company's business will expose it to potential product liability risks that are inherent in the testing, manufacturing and marketing of pharmaceutical and other products developed by the Company. The use of the Company's products in clinical trials also exposes the Company to the possibility of product liability claims and possible adverse publicity. These risks will increase to the extent the Company s products receive regulatory approval and are commercialized. The Company maintains product liability insurance for clinical trials. The Company does not currently have any other product liability insurance. There can be no assurance that the Company will be able to maintain its existing insurance or be able to obtain or maintain such additional insurance as it may need in the future on acceptable terms or that the Company's existing insurance or any such additional insurance will provide adequate coverage against potential liabilities.

VOLATILITY OF SHARE PRICE; OPTION GRANTS

Market prices for securities of companies such as Vertex are highly volatile, and the market for the securities of such companies, including the Common Stock of the Company, has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of these particular companies. Factors such as announcements of results of clinical trials, technological innovations or new products by Vertex or its competitors, government regulatory action, public concern as to the safety of products developed by the Company or others, patent or proprietary rights developments and market conditions for pharmaceutical and biotechnology stocks, in general, could have a significant adverse effect on the future market price of the Common Stock.

The Directors and officers of the Company and certain other stockholders holding in the aggregate approximately 1,162,268 shares of Common Stock have agreed not to sell their shares within 90 days following the effective date of the Registration Statement of which this Prospectus is a part. As of December 31, 1996, the Company had outstanding options for the purchase of 4,032,609 shares of Common Stock at exercise prices ranging from \$6.48 per share to \$37.50 per share. Options for the purchase of 1,624,862 shares of Common Stock were exercisable as of that date. See "Price Range of Common Stock."

ANTI-TAKEOVER PROVISIONS

The Company's charter provides for staggered terms for the members of the Board of Directors. The Company's By-laws grant the Directors a right to adjourn annual meetings of stockholders, and certain provisions of the By-laws may be amended only with an 80% stockholder vote. Pursuant to the Company's Stockholder Rights Plan, under an amendment approved by the Board of Directors, but not yet executed by the rights agent, each share of Common Stock has an associated preferred share purchase right (a "Right"). The Rights will not trade separately from the Common Stock until, and are exercisable only upon, the acquisition or the potential acquisition through tender offer by a person or group of 15% or more of the outstanding Common Stock. These charter and By-law provisions and the Company's Stockholder Rights Plan may discourage certain types of transactions involving an actual or potential change in control of the Company which might be beneficial to the Company or its stockholders. See "Description of Capital Stock -- Stockholder Rights Plan."

Shares of any class or series of preferred stock may be issued by the Company in the future without stockholder approval and upon such terms as the Board of Directors may determine. The rights of the holders of Common Stock will be subject to, and may be adversely affected by, the rights of the holders of any class or series of preferred stock that may be issued in the future. The issuance of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of discouraging a third party from acquiring a majority of the outstanding Common Stock of the Company. The Company has no present plans to issue any shares of any class or series of Preferred Stock.

DILUTION

Purchasers of shares of Common Stock in this offering will experience immediate and substantial dilution in net tangible book value per share. Additional dilution is likely to occur upon exercise of outstanding stock options. See "Dilution."

USE OF PROCEEDS

The net proceeds to be received by the Company from the sale of the Common Stock offered hereby are estimated to be approximately \$118,844,000 (\$136,745,000 if the Underwriters' over-allotment option is exercised in full), assuming a public offering price of \$50.25 per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses.

The Company intends to use the net proceeds of this offering primarily to fund research and product development programs, including clinical trials, and for general corporate purposes. In addition, a portion of the net proceeds may be used to acquire technology, products or companies that complement the business of the Company, although no such acquisition transactions are planned or are being negotiated as of the date of this Prospectus. The actual amounts and timing of expenditures for each purpose, however, will depend on the progress of the Company's research and development programs, technological advances, determinations as to commercial potential of products, the terms of any collaborative arrangements entered into by the Company for development and licensing, regulatory approvals and other factors, many of which are beyond the Company's control.

Pending such uses, the Company intends to invest the net proceeds of this offering primarily in interest-bearing, investment-grade securities.

PRICE RANGE OF COMMON STOCK

The Company's Common Stock is quoted on the Nasdaq National Market under the symbol "VRTX." The following table sets forth the high and low last sale prices for the Common Stock as reported on the Nasdaq National Market for the periods indicated.

	HIGH 	LOW
1995 First Quarter	\$16 3/4	\$13
Second Quarter	16 3/4 23	12 3/4 13 1/2
Fourth Quarter	26 1/2	16 1/4
1996		
First QuarterSecond Quarter	\$29 7/8 38	\$22 26
Third Quarter Fourth Quarter	36 1/4 40 1/4	23 1/4 28 7/8
1997 First Quarter (through February 20, 1997)	\$50 1/4	\$38 1/4

The last sale price of the Common Stock on February 20, 1997, as reported on the Nasdaq National Market, was 50.25 per share. As of February 20, 1997, there were 300 holders of record of the Common Stock.

DIVIDEND POLICY

The Company has never declared or paid any cash dividends on its Common Stock and does not anticipate doing so in the foreseeable future. The Company intends to retain future earnings, if any, for use in its business.

CAPITALIZATION

The following table sets forth the capitalization of the Company as of December 31, 1996, and as adjusted to reflect the issuance and sale of the 2,500,000 shares of Common Stock offered hereby, after deducting estimated underwriting discounts and commissions and estimated offering expenses.

	DECEME	3ER 31, 1996
	ACTUAL	AS ADJUSTED
	(IN	THOUSANDS)
Obligations under capital leases, excluding current portion Stockholders' equity:	\$ 5,617	\$ 5,617
<pre>Preferred stock, \$.01 par value; 1,000,000 shares authorized; none issued(1) Common stock, \$.01 par value; 50,000,000 shares authorized; 21,097,117 shares issued and outstanding; 23,597,117 shares</pre>		
issued and outstanding as adjusted(2) Additional paid-in capital Equity adjustments Accumulated deficit	211 227,510 49 (96,944)	346,329 49
Total stockholders' equity	130,826	249,670
Total capitalization	\$136,443	\$ 255,287

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- (1) Does not reflect shares of Series A Junior Participating Preferred Stock,
 \$.01 par value per share, issuable upon the exercise of Rights under the Company's Stockholder Rights Plan.
- (2) Excludes an aggregate of 4,032,609 shares of Common Stock reserved for issuance upon exercise of outstanding options as of December 31, 1996.

DILUTION

The net tangible book value of the Company at December 31, 1996 was \$130,826,000, or \$6.20 per share of Common Stock. Without taking into account changes in net tangible book value after December 31, 1996 other than to give effect to the sale of the 2,500,000 shares of Common Stock offered hereby, after deducting the estimated underwriting discounts and commissions and estimated offering expenses, the Company's pro forma net tangible book value at December 31, 1996 would have been \$249,670,000 or \$10.58 per share. This represents an immediate dilution in net tangible book value of \$39.67 per share to new investors purchasing shares in the offering and an immediate increase in net tangible book value of \$4.38 per share to existing stockholders. The following table illustrates the per share dilution.

Public offering price per share	\$50.25
Net tangible book value before the offering	
Increase in net tangible book value attributable to this offering	
Pro forma net tangible book value after the offering(1)	10.58
Dilution to new investors(2)	\$39.67

 Pro forma net tangible book value per share represents the amount of total tangible assets of the Company less total liabilities, divided by 23,597,117, the number of shares of Common Stock outstanding as of December 31, 1996, after giving effect to the sale of the 2,500,000 shares of Common Stock offered hereby.

⁽²⁾ Dilution is determined by subtracting pro forma net tangible book value per share after the offering from the amount of cash paid by a new investor for a share of Common Stock.

SELECTED CONSOLIDATED FINANCIAL DATA

The selected financial data presented below for each of the five years ended December 31, have been derived from the Company's consolidated financial statements which have been audited by Coopers & Lybrand L.L.P., independent accountants. Results for a particular period are not necessarily indicative of the results to be expected for particular future periods. See "Risk Factors -- History of Operating Losses and Accumulated Deficit." This data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Company's Financial Statements and related Notes incorporated herein by reference. No dividends were declared or paid for any of the periods presented.

	YEAR ENDED DECEMBER 31,				
	1992	1993	1994	1995	1996
		(IN THOUSANDS,	EXCEPT PER	SHARE AMOUNTS)	
CONSOLIDATED STATEMENT OF OPERATIONS DATA: Revenues:					
Collaborative and other research and development revenues Interest income	\$ 3,767 1,983	\$27,885 1,409	\$ 19,571 3,574	\$ 22,081 5,453	\$ 13,341 5,257
Total revenues Costs and expenses:	5,750	29,294	23,145	27,534	18,598
Research and development General and administrative	11,505 2,278	23,164 3,520	34,761 5,540	41,512 7,069	35,212 7,929
License Payment Interest	453	493	439	481	15,000 462
Total costs and expenses	14,236	27,177	40,740	49,062	58,603
Net (loss) profit before taxes Tax provision	(8,486)	2,117 80	(17,595)	(21,528)	(40,005)
Net (loss) profit	\$(8,486)		\$(17,595)	\$(21,528) =======	\$(40,005)
Net (loss) profit per common share Weighted average number of common shares outstanding			\$ (1.11) 15,818	\$ (1.25) 17,231	\$ (2.13) 18,798

	DECEMBER 31,				
	1992	1993	1994	1995	1996
CONSOLIDATED BALANCE SHEET DATA: Cash, cash equivalents and short-term investments Total assets Obligations under capital leases, excluding current portion Accumulated deficit	\$43,701 51,043 3,338 (19,853)	\$52,103 60,992 4,208 (17,816)	\$106,470 116,175 4,729 (35,411)	\$ 86,978 98,981 4,912 (56,939)	\$130,359 143,499 5,617 (96,944)
Total stockholders' equity	43,850	49,520	105,478	85,272	130,826

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Prospectus contains, in addition to historical information, forward-looking statements that involve risks and uncertainties. The Company's actual results could differ materially from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences include those discussed below, as well as those discussed under Risk Factors and elsewhere in this Prospectus.

OVERVIEW

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The Company is engaged in the discovery, development and commercialization of novel, small molecule pharmaceuticals for the treatment of major diseases for which there are currently limited or no effective treatments. The Company is a leader in the use of structure-based drug design, an approach to drug discovery that integrates advanced biology, biophysics and chemistry. The Company is conducting nine significant pharmaceutical research and development programs to develop pharmaceuticals for the treatment of viral diseases, multidrug resistance in cancer, hemoglobin disorders, autoimmune diseases, inflammatory diseases and neurodegenerative disorders. Three of these programs are in the development phase, and the other six are in the research phase.

To date, the Company has not received any revenues from the sale of pharmaceutical products and does not expect to receive such revenues, if any, in the near future. The Company has incurred since its inception, and expects to incur over the next several years, significant operating losses as a result of expenditures for its research and development programs. The Company expects that losses will fluctuate from quarter to quarter and that such fluctuations may be substantial.

RESULTS OF OPERATIONS

Year Ended December 31, 1996 Compared with Year Ended December 31, 1995

The Company's total revenues decreased to \$18,598,000 in 1996 from \$27,534,000 in 1995. In 1996, revenues consisted of \$12,013,000 under the Company's collaborative agreements, \$5,257,000 in interest earned on invested funds and \$1,328,000 in government grants and other income. Revenue from collaborative agreements consisted of \$6,289,000 from the Glaxo Wellcome collaboration, \$4,196,000 from the HMR collaboration, \$692,000 from the Kissei collaboration, \$225,000 from the Alpha collaboration, \$577,000 from the BioChem collaboration and \$34,000 from the Chugai Pharmaceutical Co., Ltd. ("Chugai") collaboration. The research funding requirements of the Chugai and Kissei collaborative agreements concluded in 1995, although Kissei continues to have certain development funding obligations. In 1995, revenues consisted of \$21,587,000 under the Company's collaborative agreements, \$5,453,000 in interest earned on invested funds and \$494,000 in government grants and other income. Revenue from collaborative agreements consisted of \$10,053,000 from the Glaxo Wellcome collaboration, \$5,370,000 from the Kissei collaboration, \$3,749,000 from the HMR collaboration, \$1,915,000 from the Chugai collaboration and \$500,000 from the Alpha collaboration.

The Company's total costs and expenses increased to \$58,603,000 in 1996 from \$49,062,000 in 1995. The increase in total costs and expenses resulted principally from the Company's payment of \$15,000,000 to obtain a non-exclusive, world-wide license under certain Searle patent applications claiming HIV protease inhibitors. Research and development expenses declined to \$35,212,000 in 1996 from \$41,512,000 in 1995. Although the Company's scientific staffing and facilities expansion added to expense in 1996, the overall decrease in research and development expense was due primarily to higher costs incurred in 1995 for the manufacturing of bulk intermediate drug substance for use in clinical trials. In addition, general and administrative expenses increased to \$7,929,000 in 1996 from \$7,069,000 in 1995. The increase in general and administrative expense principally reflects the impact of personnel additions, the Company's facilities expansion and an increase in marketing costs including the addition of marketing and support personnel for the Company's subsidiary Altus Biologics Inc.

("Altus"). Interest expense decreased to \$462,000 in 1996 from \$481,000 in 1995 on higher levels of equipment lease financing due to lower blended rates of interest charged.

The Company recorded a net loss of 40,005,000 or 2.13 per share in 1996 compared to a net loss of 21,528,000 or 1.25 per share in 1995.

Year Ended December 31, 1995 Compared with Year Ended December 31, 1994

The Company's total revenues increased to \$27,534,000 in 1995 from \$23,145,000 in 1994. In 1995, revenues consisted of \$21,587,000 under the Company's collaborative agreements, \$5,453,000 in interest earned on invested funds and \$494,000 in government grants and other income. Revenue from collaborative agreements consisted of \$10,053,000 from the Glaxo Wellcome collaboration, \$5,370,000 from the Kissei collaboration, \$3,749,000 from the HMR collaboration, \$1,915,000 from the Chugai collaboration and \$500,000 from the Alpha collaboration. The research funding requirements of the Chugai and Kissei collaborative agreements concluded in 1995, although Kissei continues to have certain development funding obligations. In 1994, revenues consisted of \$19,327,000 from collaborative agreements, \$3,574,000 in interest earned on invested funds and \$244,000 in government grants and other income. Revenue in 1994 from collaborative agreements consisted of \$5,346,000 from the Glaxo Wellcome collaboration, \$5,498,000 from the Kissei collaboration, \$3,514,000 from the HMR collaboration and \$4,969,000 from the Chugai collaboration.

The Company's total costs and expenses increased to \$49,062,000 in 1995 from \$40,740,000 in 1994. Research and development expenses increased 19% to \$41,512,000 in 1995 from \$34,761,000 in 1994, due, in part, to the costs associated with manufacturing drug product for use in ongoing clinical trials of the Company's drug candidates and, to a lesser extent, increases in the Company's research staff. General and administrative expenses increased by 28% to \$7,069,000 from \$5,540,000 between 1995 and 1994. The increase in general and administrative expense principally reflects the full year impact of personnel additions and the opening of an office in the United Kingdom in 1994 to support the Company's research and business development efforts. Also contributing to the increase were costs associated with the addition of marketing and support personnel for Altus. In addition, the Company experienced higher legal fees associated with its patent activities. Interest expense increased 10% to \$481,000 in 1995 from \$439,000 in 1994 as a result of higher levels of equipment leasing.

The Company recorded a net loss of \$21,528,000 or \$1.25 per share in 1995 compared to a net loss of \$17,595,000 or \$1.11 per share in 1994.

LIQUIDITY AND CAPITAL RESOURCES

The Company's operations have been funded principally through strategic collaborative agreements, public offerings and private placements of the Company's equity securities, equipment lease financing, government grants and interest income. The Company expects to incur increased research and development and related supporting expenses and, consequently, continued losses on a quarterly and annual basis as it continues to develop existing and future compounds and to conduct clinical trials of potential drugs. The Company also expects to incur substantial administrative and commercialization expenditures in the future and additional expenses related to the filing, prosecution, defense and enforcement of patent and other intellectual property rights.

The Company expects to finance these substantial cash needs with the proceeds of this offering, its existing cash and investments of approximately \$130.4 million, together with interest earned thereon, future payments under its existing collaborative agreements and facilities and equipment financing. To the extent that funds from these sources are not sufficient to fund the Company's activities, it will be necessary to raise additional funds through public offerings or private placements of securities or other methods of financing. There can be no assurance that such financing will be available on acceptable terms, if at all.

The Company and BioChem are collaborating on the development and commercialization in Canada of VX-710, the Company's lead multidrug resistance reversal agent. Under the development

agreement, BioChem is obligated to pay the Company up to \$4.0 million comprised of an initial licensing fee and payments for development and commercialization milestones. From the inception of the agreement in May 1996 through the year ended December 31, 1996, \$500,000 has been recognized as revenue. BioChem will fund development of VX-710 in Canada, including planned Phase II clinical trials in two different cancer indications. Vertex will supply BioChem clinical and commercial drug supply needs. In 1996, the Company received additional revenues related to the sale of clinical trial material to BioChem. BioChem will pay Vertex a portion of its net sales, which will cover Vertex's cost of supplying material and will provide a profit to Vertex.

The Company and Alpha are collaborating on the development and commercialization of VX-366 for the treatment of sickle cell anemia and beta thalassemia. Under the collaborative agreement, Alpha is obligated to pay the Company up to \$5.0 million comprised of an initial license fee and payments for development and commercialization milestones. From the inception of the agreement in October 1995 through the year ended December 31, 1996, \$500,000 has been recognized as revenue. In addition, Alpha is obligated to bear the costs of development of VX-366 under the collaboration. The Company received additional revenue related to reimbursements for clinical material during 1996. Alpha has the right to terminate the agreement without cause upon six months notice at any time. Termination will relieve Alpha of any further payment obligations under the agreement and will end the license granted to Alpha by Vertex.

The Company and Glaxo Wellcome are collaborating on the development of compounds in connection with the Company's HIV Program. Under the collaborative agreement, Glaxo Wellcome is obligated to pay the Company up to \$42.0 million comprised of a \$15.0 million initial license payment paid in 1993, \$14.0 million of product research funding over five years and \$13.0 million of development and commercialization milestone payments. From the inception of the agreement in December 1993 through the year ended December 31, 1996, \$25.0 million has been recognized as revenue. Glaxo Wellcome is also obligated to pay to Vertex additional development and commercialization milestone payments for subsequent drug candidates. In addition, Glaxo Wellcome agreed to bear the costs of development of drug candidates under the collaboration. The Company has received additional revenue related to reimbursements for clinical development. Under the agreement, Glaxo Wellcome is also required to pay Vertex a royalty on sales. Glaxo Wellcome has the right to terminate the research collaboration without cause upon twelve months notice given at any time and has the right to terminate the license arrangements without cause upon twelve months notice given at any time provided such notice is not given before the research collaboration has been terminated. Termination by Glaxo Wellcome of the research collaboration will relieve Glaxo Wellcome of its obligation to make further research support payments under the agreement. Termination by Glaxo Wellcome of the license arrangements under the agreement will relieve it of its obligation to make further commercialization and development milestone and royalty payments and will end any license granted to Glaxo Wellcome by Vertex thereunder. In June 1996, the Company and Glaxo Wellcome obtained a worldwide, non-exclusive license under certain Searle patent applications in the area of HIV protease inhibition. Vertex paid \$15.0 million and Glaxo paid \$10.0 million to Searle for the license. The Company also agreed to pay Searle a royalty on sales of VX-478, the Company's lead HIV compound.

The Company and HMR are collaborating on the development of interleukin-1 beta converting enzyme inhibitors as anti-inflammatory agents. Under the collaborative agreement, HMR is obligated to pay the Company up to \$30.5 million, comprised of \$18.5 million of product research funding over five years and \$12.0 million of development and commercialization milestone payments. From the inception of the agreement in September 1993 through the year ended December 31, 1996, \$14.5 million has been recognized as revenue. HMR has the right to terminate the agreement without cause upon twelve months notice at any time. For a period of one year after any such termination, HMR retains the right to select one or more compounds for development and to license such compound or compounds from Vertex, provided HMR resumes all research funding and commercialization milestone payments and makes all such payments that would otherwise have been

termination. Otherwise, in the case of such termination, all rights to compounds developed under the research and license agreements will revert to Vertex.

The Company and Kissei are collaborating on the development of Vertex's VX-478 protease inhibitor. Under the collaborative agreement, Kissei is obligated to pay the Company up to \$20.0 million, comprised of \$9.8 million of product research funding through 1995, \$7.0 million of development milestone and territory option payments and a \$3.2 million equity investment. From the inception of the agreement in April 1993 through the year ended December 31, 1996, \$17.8 million as an equity investment. The Company received additional revenue related to reimbursements for clinical development during this period. Under the collaboration, Kissei is also required to pay Vertex a royalty on sales.

In August 1996, the Company completed a public offering of 3,450,000 shares of its common stock, which included an over-allotment option exercised by the underwriters for 450,000 shares, at a price to the public of \$24.00 per share, with net proceeds to the Company of approximately \$77,515,000. In June 1996, Glaxo Wellcome purchased 151,792 shares of the Company's Common Stock at a price of \$32.94 per share, with net proceeds to the Company of approximately \$5.0 million. In November 1994, the Company sold an additional 1,200,000 shares of common stock in a private placement to a subsidiary of BB Biotech AG at a price of \$12.50 per share, with net proceeds to the Company of approximately \$15,000,000. In February 1994, the Company sold 3,450,000 shares of Common Stock in a public offering at a price to the public of \$18.00 per share, with net proceeds to the Company of approximately \$58,062,000.

In March 1995, the Company signed a ten-year operating lease for additional facilities for occupancy in early 1996. The Company has occupied approximately 53,000 square feet of space under this lease and has agreed to occupy approximately 60,000 square feet in total during the lease period in order to meet its longer-term expansion needs. The costs to lease and equip these facilities will be funded, in whole or in part, through existing cash and investments and through lease financing, which has been made available to the Company on acceptable terms. During 1995, the Company deposited \$2,316,000 with its bank to collateralize a conditional letter of credit in the name of the landlord. The letter of credit is redeemable only if the Company defaults on the lease under specific criteria. These funds are restricted from the Company's use, although the Company is entitled to all interest earned on the funds. The Company expects to continue its current practice of leasing most of its capital equipment, provided such lease financing continues to be available to the Company on commercially acceptable terms.

The Company's aggregate cash and investments were \$130,359,000 at December 31, 1996, an increase of \$43,381,000 from December 31, 1995. Cash used by operations was \$40,253,000 in the year ended December 31, 1996. The Company expended \$3,983,000 to acquire property and equipment, principally for research equipment and facilities. To fund these expenditures, the Company entered into equipment lease financing in the aggregate amount of \$3,727,000. In addition, the Company repaid \$2,187,000 of its lease obligations during 1996. The Company anticipates that its existing available cash and investments, including the net proceeds from this offering, will be adequate to satisfy its working capital requirements for its current and planned operations at least for the next 12 months.

BUSINESS

Vertex is engaged in the discovery, development and commercialization of novel, small molecule pharmaceuticals for the treatment of diseases for which there are currently limited or no effective treatments. The Company is a leader in the use of structure-based drug design, an approach to drug discovery that integrates advanced biology, biophysics and chemistry in a coordinated and simultaneous fashion. The Company believes that this integrated approach is applicable to therapeutic targets in a broad range of diseases. Vertex's goal is to create a portfolio of highly specific, proprietary, small molecule drugs based on its knowledge of the atomic structure of proteins involved in the control of disease processes. The Company's drug candidates for the treatment of HIV infection and AIDS, MDR in cancer and two genetic hemoglobin disorders are currently in clinical development. In addition, the Company has preclinical and research programs aimed at developing orally available small molecule compounds to treat autoimmune diseases, inflammatory diseases, neurodegenerative diseases and hepatitis C infection.

STRUCTURE-BASED DRUG DESIGN

Drugs are natural or synthetic compounds that interact with a target molecule, typically a protein, either to induce or to inhibit that molecule's function within the human body. Traditionally, pharmaceutical products have been discovered through the screening of thousands of compounds, either from existing chemical libraries or from fermentation broths, against a predictive assay for a particular disease target. The Company believes that traditional pharmaceutical discovery is an essentially random process which is costly and inefficient. Advances in biotechnology have led to another method of developing drugs based on the isolation and production of human recombinant proteins. The Company believes that this approach also has limitations because the resulting pharmaceuticals are large molecules that cannot be administered orally, are difficult to manufacture and have applications which are limited to the disease state in which the protein is involved.

Vertex is developing pharmaceutical products using a structure-based drug design approach, which is distinct from the traditional pharmaceutical and biotechnological approaches. By determining and modeling the three dimensional atomic structure of a target protein, the Company intends to rationally design or alter chemical compounds to specifically interact with the targeted protein. The Company believes that structure-based drug design increases the chances for the discovery of multiple lead compounds for selected protein targets, including targets for which traditional drug discovery has met with limited success. Moreover, the Company believes that the structure-based drug design process may accelerate optimization of lead compounds, since modification of a lead compound may be undertaken with knowledge of the relationship between the compound's structure and its desired therapeutic effect, rather than through experimentation with randomly generated modifications to that compound.

The Company's approach to structure-based design is an integrated approach combining efforts in biology, biophysics and chemistry in a coordinated and simultaneous fashion. To acquire structural information, Vertex applies advanced biophysical and computational tools, including x-ray crystallography, nuclear magnetic resonance spectroscopy and high resolution computer modeling. As structural information is gathered, the Company uses combinatorial, computational and medicinal chemistry to design and produce novel, highly specific small molecule compounds that possess the characteristics required for therapeutic benefit. To arrive at initial lead compounds, the Company may use traditional approaches, such as screening chemical libraries, natural products or combinatorial libraries in addition to using known chemical compounds or may apply direct computational methods (de novo design). Throughout the process, the Company develops biological assays and proprietary animal models, some of which employ the latest advances in genomics techniques, in order to analyze the function of target proteins. Using these tools, the Company optimizes compounds for potency and pharmaceutical properties, including tolerability and pharmacokinetics, and manufacturability. The Company selects clinical candidates from among optimized compounds based on the results of in vitro and in vivo tests designed to predict the compounds' safety and efficacy.

Vertex expects to employ all of its core technologies from the initial phases of a program through the entire discovery process. Information generated through the application of one scientific technique becomes part of the information base from which further advances may be made by Vertex scientists using other development techniques. Using its approach to structure-based drug design, Vertex has demonstrated that it is able to solve atomic structures of target proteins, generate lead compounds that bind to the target in vitro and optimize those compounds to produce drug candidates with desirable pharmaceutical attributes. The Company believes that its integrated structure-based approach to drug discovery and the applicability of this approach to a broad range of protein targets provides the Company with significant competitive advantages in the discovery and development of novel therapeutics for a variety of diseases.

CORPORATE STRATEGY

Vertex is concentrating on the discovery and development of drugs for the treatment of viral diseases, multidrug resistance in cancer, hemoglobin disorders, autoimmune diseases, inflammatory diseases and neurodegenerative diseases. The Company's research and development strategy is to identify therapeutic areas in which there is (i) an unmet clinical need, (ii) evidence that interaction with known protein targets will produce a therapeutic effect and (iii) evidence that the protein targets will be appropriate for structural analysis using Vertex's scientific approach. The Company's business strategy is to form collaborations with pharmaceutical companies in programs for which they can provide resources and access to competencies complementary to Vertex's in-house capabilities.

The following table outlines the Company's most advanced product development and research programs.

COMPOUND/PROGRAM	INDICATION(S)	STATUS(1)	COMMERCIAL RIGHTS
VX-478	HIV/AIDS	Phase III(2)	Glaxo Wellcome/Kissei(3)
HIV Protease Inhibitors	HIV/AIDS	Research	Glaxo Wellcome
VX-710	Cancers susceptible to MDR	Phase II	BioChem/Vertex(4)
VX-853	Cancers susceptible to MDR	Phase I/II	Vertex
VX-366	Sickle cell disease and beta thalassemia	Phase II	Alpha/Ravizza/Vertex(5)
VX-497	Autoimmune diseases	Preclinical	Vertex
VX-740	Inflammatory diseases	Preclinical	HMR/Vertex(6)
Neurophilins	Neurodegenerative diseases	Research	Vertex
Apoptosis	Neurodegenerative diseases	Research	Vertex
Hepatitis C	Hepatitis C infection	Research	Vertex
MAP Kinases	Inflammatory diseases	Research	Vertex

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- (1) "Research" includes the discovery or creation of prototype compounds, in vitro studies of those compounds and preliminary evaluation in animals. "Preclinical" includes toxicologic assessment of candidate compounds in animal models and formulation of a product in an appropriate dosage form, development of chemical processes suitable for production of clinical grade material, and appropriate pharmacological evaluation. "Phase I" clinical trials indicates that the compound is being tested in healthy humans for safety, dose tolerance, absorption, bioavailability, biodistribution, metabolism, excretion, clinical pharmacology and/or, if possible, early information on efficacy. "Phase I/II" clinical trials indicates that the compound is being tested in a limited patient population for safety and preliminary indications of biological activity in patients with the targeted disease. "Phase II" clinical trials indicates that the compound is being tested in a limited patient population to assess the efficacy of the drug for a specific indication, to determine dose tolerance and the optimal dose range and to gather additional information relating to safety and potential adverse effects. "Phase III" clinical trials indicates that the compound is being further evaluated for clinical safety and efficacy in an expanded patient population at geographically dispersed study sites, to determine the overall risk-benefit ratio of the drug and to provide an adequate basis for physician labeling. See "-- Government Regulation."
- (2) VX-478 is currently in one Phase III clinical trial in the U.S. and Europe, with additional Phase III trials planned, and has completed Phase I clinical trials in Japan.
- (3) Glaxo Wellcome has worldwide rights except for the Far East. Kissei has rights for the Far East. See "-- Corporate Collaborations -- Glaxo Wellcome plc." and "-- Kissei Pharmaceutical Co., Ltd."
- (4) BioChem has rights for VX-710 in Canada. Vertex retains worldwide rights for VX-710, except for Canada. See "-- Corporate Collaborations -- BioChem Therapeutic, Inc."
- (5) Alpha has rights for VX-366 for North, Central and South America. Vertex retains worldwide rights, except for North, Central and South America. Vertex has an arrangement with Ravizza under which Ravizza is conducting clinical studies and will share data with the Company and which includes a framework for negotiation of an agreement for clinical development and

commercialization of compounds in Europe. See "-- Corporate Collaborations -- Alpha Therapeutic Corporation" and "-- Ravizza Farmaceutici S.p.A."

(6) HMR has rights for any ICE inhibitors developed for Europe, Africa and the Middle East. Vertex and HMR have joint rights for the Far East. Vertex retains rights for the Americas and the rest of the world. See "-- Corporate Collaborations -- Hoechst Marion Roussel."

CLINICAL PROGRAMS

HIV PROGRAM

Overview

Vertex is developing orally deliverable antiviral drugs to treat HIV infection and AIDS. The Company is collaborating with Glaxo Wellcome plc. and Kissei Pharmaceutical Co., Ltd. in the development of its most advanced HIV protease inhibitor, VX-478. Glaxo Wellcome has initiated multi-center Phase III clinical trials to assess the safety and efficacy of VX-478 in HIV-positive individuals. The Phase III clinical trials are intended to support the submission of an NDA for market approval in the United States and equivalent submissions in Europe and other territories. However, there can be no assurance that these clinical trials will result in the submission or approval of an NDA for VX-478.

Background

As of June 1996, approximately 548,000 cases of AIDS had been reported to the U.S. Centers for Disease Control and Prevention and the current population of surviving AIDS patients in the U.S. was estimated to be approximately 205,000. The U.S. Centers for Disease Control also estimates that more than 700,000 additional people in the United States are infected with HIV. In 1996, the World Health Organization reported that approximately 1,500,000 AIDS cases had been reported worldwide, but it is estimated that the actual total number of cases was over 8,400,000.

AIDS is caused by infection with HIV. HIV infection causes severe immunosuppression and, eventually, death by attacking and destroying T-cells, which coordinate much of the network of normal immune responses. Progression from HIV infection to AIDS may take many years. Currently, there are two classes of antiviral drugs approved for the treatment of AIDS, reverse transcriptase inhibitors and protease inhibitors. AZT, ddI, ddC and 3TC are drugs that act by inhibiting reverse transcriptase, an enzyme required for viral replication. The clinical utility of each of these drugs is limited by significant side effects and by the development of viral resistance. While certain anti-HIV drugs may be used alone, the clinical utility of these drugs may be improved if these drugs are administered in combination. Such combination therapy can delay the onset of viral resistance. Due to the limitations of AZT and other reverse transcriptase inhibitors, there has been significant interest in developing anti-HIV agents that work by alternative mechanisms, such as HIV protease inhibitors which act by blocking another viral enzyme involved in HIV replication. The FDA has approved for marketing HIV protease inhibitors developed by Merck & Co., Inc., Hoffmann-La Roche and Abbott Laboratories, Inc.

The Company believes that the market for protease inhibitors is competitive and that a protease inhibitor compound's utility may be evaluated based on several key characteristics. These characteristics include efficacy, convenient dosing regimen, high bioavailability and pharmacokinetics (i.e., high absorption into and sustained presence in the bloodstream), the ability to penetrate the brain and lymph systems from the bloodstream, an acceptable resistance profile, a favorable side effect profile and practical manufacture.

Clinical Status

Vertex's HIV and AIDS program is focused on the development of a highly specific protease inhibitor designed to effectively block the replication of HIV and to possess key competitive characteristics. In February 1997, Glaxo Wellcome began a multi-center Phase III clinical trial in the United States, Canada and Europe to evaluate the tolerability, antiviral efficacy, and durability of the antiviral response of VX-478 in combination with AZT and 3TC. The protocol calls for VX-478 to be administered orally at a dose of 1200 mg twice daily in combination with AZT and 3TC. A second group treated with AZT and 3TC will provide a comparison arm for the clinical trial. Approximately 290 HIV-positive adults are expected to enroll in the trial. In addition, the Company anticipates that Glaxo Wellcome will begin in the first half of 1997 a second multi-center Phase III clinical trial in the United States and Europe to assess the safety and efficacy of VX-478 in children. There can be no assurance that clinical trials will result in the submission or approval of an NDA for VX-478 or that

trials that have not yet begun will commence. See "Risk Factors -- Uncertainties Related to Clinical Trials" and "-- Manufacturing Uncertainties; Reliance on Third Party Manufacturers."

In addition to the Phase III trials with AZT and 3TC discussed above, clinical trials of VX-478 alone and in combination with other anti-HIV agents are being conducted. In September 1996, Glaxo Wellcome initiated a 12-week dose-range finding Phase II clinical trial testing the safety and efficacy of VX-478 in combination with AZT and 3TC. This study has completed enrollment of approximately 80 participants and the duration of the study has been extended to 24 weeks. In January 1997, Glaxo Wellcome initiated a 24-week Phase II clinical trial of VX-478 in double protease regimens, pairing VX-478 with saquinavir (Roche), indinavir (Merck) or nelfinavir (Agouron). Approximately 48 patients are expected to enroll in the study. Through a collaboration with the ACTG, Glaxo Wellcome, Kissei and Vertex, a 24-week Phase II clinical trial was initiated in February 1997 to evaluate the safety and efficacy of VX-478 as a single agent. A second group treated with VX-478, AZT and 3TC will provide a comparison for the clinical trial. The trial will be conducted in the United States at 10 ACTG clinical centers and is expected to enroll approximately 84 HIV-positive individuals. In 1997, Glaxo Wellcome plans to initiate a clinical trial to assess the use of VX-478 in combination with 1592U89, a new reverse transcriptase inhibitor in development by Glaxo Wellcome. There can be no assurance, however, that these clinical trials will commence or proceed as currently anticipated. See "Risk Factors -- Uncertainties Related to Clinical Trials" and "-- Dependence on Collaborative Partners."

In January 1997, Glaxo Wellcome reported preliminary results from a 60-patient multi-center Phase I/II clinical trial conducted in the United States and Europe suggesting that VX-478 is well-tolerated and displays potent antiviral activity. At the three highest doses of VX-478 administered as a single agent (900 mg, 1050 mg or 1200 mg twice daily), the median maximal decrease in viral load ranged from 1.69 to 1.89 logs, indicating potent antiviral activity. The results indicated that the antiviral activity of VX-478 was dose-dependent, with increasing doses providing better antiviral effect. The trial also included the administration of VX-478 at a dose of 900 mg (twice daily) in combination with 1592U89 (300 mg twice daily). For the combination, five of seven patients had viral loads below the level of detection (<400 copies/ml) at four weeks. The median maximal decrease in viral load in this combination group was 2.08 logs. Adverse events reported in the trial, such as rash, nausea and loose stool/diarrhea, were mild and reversible in most cases. The combination of VX-478 and 1592U89 was well-tolerated, with nausea being the most commonly reported adverse event in this combination. Of the 60 participants in the trial, five withdrew based on adverse events. The data from this trial is preliminary and incomplete. There can be no assurance that these results are predictive of results that will be obtained in any future clinical trials. See "Risk Factors -- Uncertainties Related to Clinical Trials."

In January 1997, Glaxo Wellcome also reported preliminary data from the Phase I/II clinical trial suggesting that resistance did not develop to VX-478 administered as a single agent over the four week time period. The results of the genotype (sequence) and phenotype (drug sensitivity) analyses of virus isolated from patients participating in the Phase I/II study (at doses of 300 mg twice daily; 300 mg three times daily; 900 mg twice daily or 1200 mg twice daily) indicated that resistance did not appear to develop to VX-478, whether at the lower doses or at the higher doses, where potent antiviral activity was observed. There can be no assurance that resistance will not occur when VX-478 is administered for longer periods or in combination with other antiviral agents. See "Risk Factors -- Early Stage of Development; Technological Uncertainty."

In 1995, Kissei completed single dose and multi-dose, placebo-controlled, Phase I clinical trials. Results from these trials reported in May 1996 indicated that VX-478 was well-tolerated, with no significant adverse experiences or laboratory test abnormalities observed at the doses tested. Vertex expects that Kissei will initiate Phase II/III efficacy trials in 1997 in HIV-positive patients that will be designed based on clinical data from Glaxo Wellcome. There can be no assurance, however, that these clinical trials will commence or proceed as currently anticipated. See "Risk Factors -- Uncertainties Related to Clinical Trials," "-- Manufacturing Uncertainties; Reliance on Third Party Manufacturers" and "-- Dependence on Collaborative Partners." In collaboration with Glaxo Wellcome, Vertex also is engaged in research to develop additional lead classes of HIV protease inhibitors. This research is focused on designing compounds with resistance profiles distinct from VX-478.

The Company has one issued United States patent, ten United States patent applications pending, and foreign counterparts to some of those applications, that claim classes of chemical compounds and/or their uses which include within their scope the Company's lead drug candidates for treating HIV infection and AIDS. The issued patent and five of the ten United States patent applications, have claims that include VX-478 within their literal scope. Vertex recently received a Notice of Allowance for claims covering the use of VX-478 to treat AIDS-related central nervous system disorders. In addition, the Company has one United States patent application that claims processes for preparing synthetic intermediates useful in the synthesis of a class of compounds that includes VX-478. The Company also has a non-exclusive, worldwide license under certain Searle patent applications claiming HIV protease inhibitors. See "Risk Factors -- Uncertainly Related to Patents and Proprietary Information."

CANCER MULTIDRUG RESISTANCE PROGRAM

Overview

Vertex is developing novel compounds to treat and prevent the occurrence of drug resistance associated with the failure of cancer chemotherapy by inhibiting cellular mechanisms believed to be responsible for MDR. Two cellular mechanisms implicated in MDR are P-glycoprotein, or "MDR1," and multidrug resistance associated protein, or "MRP." In June 1996, Vertex commenced a Phase II multi-center clinical trial to assess the safety and efficacy of the co-administration of VX-710 and doxorubicin in patients with liver cancer. In 1997, Vertex plans to initiate a Phase II multi-center clinical trial to assess the safety and efficacy of the co-administration of VX-710 and paclitaxel in patients with breast cancer. Vertex is collaborating with BioChem Therapeutic, Inc., a subsidiary of Biochem Pharma (International) Inc., for the development and commercialization of VX-710 in Canada. The Company expects that BioChem will initiate Phase II clinical trials of VX-710 for two additional cancers in Canada in 1997. In April 1996, the Company commenced a Phase I/II dose escalating clinical trial with a second MDR inhibitor, VX-853, an orally-administered compound in a chemical class distinct from intravenously administered VX-710, in combination with doxorubicin in patients with solid tumors.

Background

According to the American Cancer Society, there will be an estimated 530,000 new cases of breast, ovarian, lung, liver and colorectal tumors in the United States in 1997. In addition, the American Cancer Society also estimates that there will be an estimated 95,000 new patients each year in the United States afflicted with blood cancers, such as multiple myeloma, acute myeloid leukemia and non-Hodgkin's lymphoma. The Company believes that a significant number of these patients may not be effectively treated by chemotherapy because of MDR.

Multidrug resistance is frequently associated with the failure of chemotherapy. A major contributing factor to MDR is the presence of molecular pumps that function to expel toxins out of the cell. MDR occurs when these pumps, including MDR1 and MRP, expel chemotherapeutic agents from cancer cells, preventing the sustained delivery of potent levels of the chemotherapeutic agents required for therapeutic benefit. As a consequence, such resistant tumor cells cannot be killed efficiently by anticancer drugs such as methotrexate, doxorubicin, vincristine and paclitaxel. MDR1 has been implicated in MDR in a variety of cancers including liver cancer, colon cancer, pancreatic cancer, chronic myelogenous leukemia and certain lung cancers. MRP was recently identified as another drug efflux pump and is believed responsible for resistance observed in additional tumor types.

No drug has been approved by the FDA specifically for the treatment of MDR, however, several compounds are in advanced clinical studies. Certain agents, such as dex-verapamil and an analog of

cyclosporin A, have been shown in preliminary human studies to have some effectiveness in overcoming clinical resistance to certain commonly used chemotherapeutic agents. The Company believes these drugs may have side effects that could limit broad use.

Clinical Status

Vertex's lead compound, VX-710, has displayed potent activity in vitro as an inhibitor of MDR for a number of chemotherapeutic agents in a variety of tumor types. In June 1996, Vertex initiated a Phase II multi-center clinical trial to assess the safety and efficacy of the co-administration of VX-710 and doxorubicin in patients with liver cancer. The comparison arm for the study involves the administration of doxorubicin alone. Cross-over from the comparison arm to the study arm is allowed. The clinical trial is expected to enroll up to 70 patients. The Company has recently added additional investigative sites in order to accelerate enrollment in the trial. In 1997, Vertex plans to initiate a Phase II multi-center trial to assess the safety and efficacy of the co-administration of VX-710 and paclitaxel in patients with breast cancer. The primary efficacy endpoints in both trials will be response rate and time to disease progression. In addition, BioChem is planning to initiate Phase II clinical trials of VX-710 in Canada in 1997 in combination with paclitaxel in patients with ovarian cancer and in combination with doxorubicin in patients with soft tissue sarcoma. There can be no assurance, however, that clinical trials will commence or proceed as currently anticipated. See "Risk Factors -Uncertainties Related to Clinical Trials," "-- Manufacturing Uncertainties; Reliance on Third Party Manufacturers" and "-- Dependence on Collaborative Partners.

In April 1996, a principal investigator for the ongoing Phase I/II trial reported preliminary results for the VX-710/doxorubicin combination. The findings, based on 22 patients receiving intravenous doses of up to 160 mg/m(2)/hr, suggest that the regimen was well-tolerated, with generally mild and reversible side effects at the doses tested. The results also showed that the regimen can be successfully administered to achieve blood levels shown to reverse MDR in vitro and in preclinical studies. The investigator also reported that VX-710 did not appear to alter markedly the clearance or half-life of doxorubicin, which the Company believes will provide future flexibility for dosage. Investigators used an imaging agent, which is ordinarily expelled from the liver by MDR1, as a marker for MDR1 inhibition by VX-710. In this trial, the level of retention of the imaging agent in the liver suggested that VX-710 was blocking the activity of MDR1.

Vertex's research has identified several proprietary compounds, in addition to VX-710, that are able to return drug resistant cells to a state of drug sensitivity in vitro. In November 1995, Vertex scientists reported in vitro MDR inhibition results for VX-853, an orally administered compound in a chemical class distinct from VX-710. The research showed that VX-853 potently blocks MDR mediated by both MDR1 and MRP. In April 1996, the Company commenced a Phase I/II dose-escalating clinical trial of VX-853 in combination with doxorubicin in patients with solid tumors.

The Company has one issued United States patent, five United States patent applications pending and several foreign counterpart applications claiming VX-710 and other compounds for treating multidrug resistance. Vertex recently received a Notice of Allowance for claims covering VX-710 and structurally related compounds. The issued United States patent claims VX-853 and structurally related compounds. The Company may seek orphan drug status for certain indications of its MDR compounds.

HEMOGLOBIN DISORDERS PROGRAM

Overview

Vertex is developing VX-366, a drug to treat sickle cell disease and beta thalassemia, two inherited blood disorders for which there currently are a limited number of treatments. The Company is collaborating with Alpha Therapeutic Corporation, a subsidiary of Green Cross Corporation, and Ravizza Farmaceutici, a subsidiary of BASF, in the development of its hemoglobin disorder compounds.

Background

Sickle cell disease affects one in 375 African-Americans and, to a lesser extent, persons of Eastern Mediterranean, Indian or Saudi Arabian ancestry. There were an estimated 75,000 sickle cell cases and 10,000 beta thalassemia cases in the United States and Europe as of 1994.

Sickle cell disease and beta thalassemia are inherited disorders caused by defects in the gene for adult hemoglobin. These diseases are associated with life-threatening organ damage, cause chronic and recurrent pain and predispose affected individuals to severe infection.

There are currently a limited number of treatments for beta thalessemia and sickle cell disease. Hydroxyurea, an oral compound currently marketed as an anti-cancer agent, has been shown, in a Phase III study conducted by the National Institutes of Health, to improve the symptoms of patients with sickle cell disease. The Company believes, however, that this compound has limitations due to toxic side effects. Other treatments used to combat symptoms of sickle cell disease and beta thalassemia include antibiotics, pain killers and blood transfusions. Several compounds are in clinical development by a number of companies for the treatment of these diseases.

Clinical Status

Vertex's drug in development for hemoglobin disorders is VX-366. Vertex acquired VX-366, a butyrate compound, in August 1993 under an exclusive license from Children's Hospital Medical Center of Oakland. In June 1996, Ravizza reported results of a four-week Phase II trial in 12 patients with beta thalassemia, which indicated that VX-366 increased participants' levels of hemoglobin F, a form of hemoglobin that has been shown to improve symptoms and extend the life span of individuals with sickle cell disease and beta thalassemia. In September 1995, Vertex entered into a license agreement with Alpha for the development and commercialization of VX-366 in North, Central and South America. There can be no assurance, however, that clinical trials involving VX-366 will proceed or that future trials will commence. See "Risk Factors -- Uncertainties Related to Clinical Studies," "-- Manufacturing Uncertainties; Reliance on Third Party Manufacturers" and "-- Dependence on Collaborative Partners."

Four United States patents have issued, which are licensed exclusively by Vertex from Children's Hospital. Three of these patents claim the use of VX-366 in the treatment of hemoglobin disorders, including sickle cell disease and beta thalassemia. Because Children's Hospital did not foreign file the application corresponding to that reissue application within one year of filing its corresponding United States application, the Company's foreign patent rights may be limited. Vertex has filed three United States patent applications claiming various compounds and their use in the treatment of hemoglobin disorders.

PRECLINICAL PROGRAMS

IMPDH PROGRAM

Overview

Vertex is developing novel, orally deliverable immunosuppressive drugs that it believes could selectively halt the growth of lymphocytes by blocking inosine monophosphate dehydrogenase ("IMPDH"), an enzyme which controls DNA synthesis in lymphocytes. In December 1996, Vertex selected VX-497 as a lead drug development candidate for autoimmune diseases. Vertex currently is conducting preclinical trials of VX-497 and plans to initiate clinical trials of VX-497 in 1998.

Background

The activation and proliferation of lymphocytes are associated with a variety of autoimmune diseases, including asthma, psoriasis, rheumatoid arthritis and systemic lupus, as well as with transplant rejection. Vertex believes that blocking the enzyme IMPDH with an oral compound designed to specifically bind to the active site of IMPDH may provide a novel way to inhibit the progress of autoimmune diseases. The Company is aware of only one specific inhibitor of IMPDH currently on the market in the United States, Hoffmann-La Roche's mycophenolate mofetil, which is approved for acute kidney transplant rejection. The Company believes that compound-specific side effects of mycophenolate mofetil may limit its use for chronic autoimmune disorders.

Preclinical Status

Vertex has identified novel lead classes of IMPDH inhibitors. In December 1996, Vertex selected VX-497 as a lead drug development candidate for autoimmune diseases. In laboratory tests and in models of autoimmune disease and transplantation performed to date, VX-497 has been a potent and well-tolerated immunosuppressive agent. Vertex currently is conducting preclinical trials of VX-497. The Company plans to initiate clinical trials of VX-497 in 1998. Vertex intends to evaluate VX-497 for psoriasis, an autoimmune disease of the skin, as the first clinical indication for the compound. There can be no assurance, however, that clinical trials will commence or proceed as currently anticipated. See"Risk Factors -- Early Stages of Development; Technological Uncertainty," "--Manufacturing Uncertainties; Reliance on Third Party Manufacturers" and " --Uncertainties Related to Clinical Trials."

The Company has two United States patent applications pending, claiming inhibitors of IMPDH, including VX-497 and related compounds. The Company has another United States patent application pending that claims the crystal structure of IMPDH and the use of that structure to design inhibitors.

INFLAMMATION PROGRAM

Overview

Vertex is developing novel drugs to treat acute and chronic inflammatory conditions, including pancreatitis, osteoarthritis and rheumatoid arthritis. The Company is collaborating with Hoechst Marion Roussel in the development of compounds to block interleukin-1 beta converting enzyme ("ICE"), which mediates the production and release of the inflammatory cytokine IL-1 beta, as well as the production of gamma interferon. In February 1997, Vertex selected VX-740 as a lead drug development candidate for inflammatory diseases.

Background

Elevation of IL-1 beta levels has been correlated to a number of acute and chronic inflammatory diseases such as asthma, inflammatory bowel disease, osteoarthritis, pancreatitis and rheumatoid arthritis. There are approximately 2,500,000 cases of rheumatoid arthritis in the United States alone. ICE was first characterized in late 1991 and represents a novel target for anti-inflammatory drug discovery. Although several companies are pursuing ICE as a drug target, Vertex is not aware of any company with an ICE-inhibiting compound in clinical development, and there currently are no IL-1 beta inhibitors approved for marketing.

Preclinical Status

Vertex and HMR have designed potential small molecule inhibitors of ICE that could be used for the treatment of both acute and chronic inflammatory disorders such as asthma, inflammatory bowel disease, osteoarthritis, pancreatitis and rheumatoid arthritis. In February 1997, Vertex selected VX-740 as a lead drug development candidate for inflammatory diseases.

Vertex scientists recently discovered that ICE plays a key role in the production of gamma interferon, a key immunoregulator that modulates antigen presentation, T-cell activation, and cell adhesion. This research was published in the January 10, 1997 issue of the journal Science. Based on the discovery of a new role for ICE in the production of gamma interferon, Vertex plans to investigate ICE inhibitors for additional therapeutic uses such as in metastatic cancer, diabetes and sepsis. See "Risk Factors -- Early Stages of Development; Technological Uncertainty," "-- Manufacturing Uncertainties; Reliance on Third Party Manufacturers" and " -- Uncertainties Related to Clinical Trials."

The Company has fourteen patent applications pending in the United States and several foreign counterpart patent applications claiming inhibitors of ICE. Vertex recently received a Notice of Allowance in one of those applications. The Company has three patent applications pending in the United States and several foreign counterpart applications claiming the crystal structure of ICE and derivatives thereof and various uses of those structures.

RESEARCH PROGRAMS

Neurophilins

Vertex has designed novel, orally deliverable, small molecule compounds that have the potential to be developed as drugs to treat neurodegenerative diseases, including stroke, peripheral neuropathies and Parkinson's disease and Alzheimer's disease. Vertex has conducted laboratory experiments the results of which suggest that certain of its compounds stimulate nerve growth. In 1996, Vertex reported results in a rat model of peripheral nerve injury. The neurophilin compound accelerated the onset of foot movement and walking compared to the control. In addition, the compound produced a 50 percent increase in the average size of nerve cells in the injured area as compared to the control animals. Vertex has identified several promising lead compounds and plans to test those compounds in additional models of nerve growth.

The Company has five United States patent applications claiming the use of certain of its immunosuppressive compounds and certain of its multidrug resistance compounds for nerve growth applications. The Company also has one issued United States patent and nine United States patent applications pending that claim compounds useful in nerve growth applications.

Caspases (Apoptosis)

The goal of Vertex's caspases program is to discover and develop drugs useful for treating neurodegenerative disorders such as Alzheimer's disease and Parkinson's disease as well as for the prevention of tissue damage resulting from myocardial and cerebral ischemia.

Vertex is conducting research to design novel drugs for apoptosis (programmed cell death) for neurodegenerative diseases and other neurodegenerative conditions. This drug discovery effort is based on the Company's knowledge of ICE and its homologues, the caspases. Vertex has gained a detailed understanding of apoptotic pathways using biological, genomic, and structural data from ICE homologues. Vertex has solved the X-ray structure of CPP32, a caspase believed to be important in neuronal apoptosis, and is using structural information to design small molecule lead compounds that selectively block CPP32 and other caspases.

The Company has one United States patent application claiming a protein involved in apoptosis.

Hepatitis C Protease

The Company is conducting discovery research to design orally deliverable drugs to inhibit hepatitis C protease, an enzyme generally believed to be essential for replication of the hepatitis C virus ("HCV"). Discovered in 1989, HCV causes chronic inflammation in the liver. In a majority of patients, HCV establishes a chronic infection that can persist for decades and eventually lead to cirrhosis, liver failure and liver cancer. HCV infection represents a significant medical problem worldwide for which there is inadequate or no therapy for a majority of patients. Sources at the U.S. Centers for Disease Control and Prevention recently estimated that approximately 3.9 million Americans, or more than one percent of the population, may be infected with HCV. Currently, there is no vaccine available to prevent hepatitis C infection. In addition, the only drug approved for the treatment of hepatitis C, interferon alpha, provides long-term therapeutic benefit to less than 25 percent of patients treated.

In 1996, Vertex solved the structure of the hepatitis C protease, using X-ray crystallography. Vertex is utilizing a variety of advanced techniques, as well as its experience with HIV protease inhibitors, to design inhibitors of HCV protease enzyme.

Vertex has one United States patent application pending claiming inhibitors of HCV protease. Vertex also has one United States patent application pending claiming the crystal structure of HCV protease and the use of that structure to design inhibitors. Vertex has an additional United States patent application claiming methods of identifying HCV protease inhibitors.

MAP Kinases

Vertex is conducting research to design novel anti-inflammatory drugs based on small molecule inhibitors of MAP kinases. MAP kinases regulate both interleukin-1 and tumor necrosis factor, hormones involved in inflammation and programmed cell death. In 1996, Vertex solved the structure of p38 MAP kinase using X-ray crystallography. Vertex is conducting research to solve additional related MAP kinases. Together with the structural information now available, Vertex is using structure-directed high throughput screening to identify novel lead inhibitors of p38 MAP kinase.

Vertex has one United States patent application pending claiming inhibitors of p38 MAP Kinase.

CORPORATE COLLABORATIONS

Vertex has entered into corporate collaborations with pharmaceutical companies that provide financial and other resources, including capabilities in research, development and sales and marketing, to support the Company's research and development programs. To date, the Company has entered into the following major corporate collaborations.

Glaxo Wellcome plc.

Vertex and Glaxo Wellcome are collaborating on the development of Vertex's HIV protease inhibitors. Under the collaborative agreement, which commenced in December 1993, Glaxo Wellcome is obligated to pay Vertex up to \$42.0 million, comprised of a \$15.0 million initial license payment paid in December 1993, \$14.0 million of product research funding over five years and \$13.0 million of development and commercialization milestone payments for an initial drug candidate. From the inception of the agreement in December 1993 through December 31, 1996, Vertex has recognized as revenue \$25.0 million. Glaxo Wellcome is also obligated to pay to Vertex additional development and commercialization milestone payments for subsequent drug candidates. In addition, Glaxo Wellcome is required to bear the costs of development in its territory under the collaboration. Glaxo Wellcome has exclusive rights to develop and commercialize Vertex HIV protease inhibitors in all parts of the world except the Far East and will pay Vertex a royalty on sales. Vertex has retained certain bulk drug manufacturing rights and certain co-promotion rights in the territories licensed to Glaxo Wellcome. See "-- HIV Program."

Glaxo Wellcome has the right to terminate the research collaboration under its agreement with the Company without cause upon twelve months' notice given at any time and has the right to terminate the license arrangements under its agreement with the Company without cause upon twelve months' notice, provided such notice is not given before the research collaboration has been terminated. Termination by Glaxo Wellcome of the research collaboration under its agreement with the Company will relieve Glaxo Wellcome of its obligation to make further research support payments under the agreement. Termination by Glaxo Wellcome of the license arrangements under the agreement will relieve Glaxo Wellcome of its obligation to make further commercialization and development milestone and royalty payments, and will end any license granted to Glaxo Wellcome by Vertex thereunder, and could have a material adverse effect on the Company's business and result of operations. See "Risk Factors -- Dependence on Collaborative Partners."

In June 1996, Vertex and Glaxo Wellcome obtained a non-exclusive, worldwide license under certain Searle patent applications claiming HIV protease inhibitors to permit Vertex and Glaxo Wellcome to develop, manufacture and market VX-478 free of the risk of intellectual property claims by Searle. Vertex and Glaxo Wellcome paid Searle \$15.0 million and \$10.0 million, respectively, for the license. In addition, the terms of the license require Vertex to pay Searle a royalty on sales. In

connection with this transaction, Glaxo Wellcome purchased 151,792 shares of the Company's Common Stock at a price of \$32.94 per share, with net proceeds to the Company of approximately \$5.0 million.

Kissei Pharmaceutical Co., Ltd.

Vertex and Kissei are collaborating on the development of Vertex's VX-478 HIV protease inhibitor. Under the collaborative agreement, which commenced in April 1993, Kissei is obligated to pay to Vertex up to \$20.0 million, comprised of \$9.8 million of product research funding over three years, \$7.0 million of development and commercialization milestone payments and a \$3.2 million equity investment. From the inception of the agreement in April 1993 through December 31, 1996, \$17.8 million has been received, including \$14.6 million recognized as revenue and \$3.2 million as an equity investment. The Company has received the full amount of research funding specified under the agreement. Kissei has exclusive rights to develop and commercialize VX-478 in Japan, the People's Republic of China and several other countries in the Far East and will pay Vertex a royalty on sales. Vertex will manufacture bulk product for Kissei. See "-- HIV Program."

Hoechst Marion Roussel

Vertex and HMR are collaborating on the development of ICE inhibitors as anti-inflammatory agents. Under the collaborative agreement, which commenced in September 1993, HMR is obligated to pay to Vertex up to \$30.5 million, comprised of \$18.5 million of product research funding over five years and \$12.0 million of development and commercialization milestone payments. From the inception of the agreement in September 1993 through December 31, 1996, \$14.5 million has been recognized as revenue. HMR has exclusive rights to develop and market drugs resulting from the collaborative effort in Europe, Africa and the Middle East, and Vertex has exclusive development and marketing rights in the rest of the world, except the Far East, where Vertex shares those rights with HMR. HMR is obligated to pay a royalty to Vertex on any sales made in Europe, and Vertex is obligated to pay a royalty to HMR on any sales made in the United States or the rest of the Americas. Each party will have the option to co-promote products in the other party's exclusive territory. Vertex and HMR will each have rights to develop and market the drugs in Far Eastern countries including Japan.

HMR has the right to terminate the agreement at any time without cause upon twelve months' notice. For a period of one year after any such termination, HMR retains the right to select one or more compounds for development and to license such compound or compounds from Vertex, provided HMR resumes research funding and commercialization milestone payments and makes all such payments that would otherwise have been due but for such termination. See "-- Inflammation Program."

BioChem Therapeutic, Inc.

The Company and BioChem are collaborating on the development and commercialization of VX-710, the Company's lead compound in its cancer multidrug resistance program. Under the collaborative agreement, which commenced in May 1996, BioChem is obligated to pay the Company up to \$4.0 million comprised of an initial license payment of \$500,000 and development and commercialization milestone payments. BioChem also is obligated to bear the costs of development of VX-710 in Canada. BioChem has exclusive rights to develop and commercialize VX-710 in Canada. The Company will supply BioChem's requirements of bulk and finished forms of VX-710. BioChem will make payments to the Company for those materials based on sales of products by BioChem, which will cover Vertex's cost of supplying materials and will provide a profit to Vertex.

BioChem has the right to terminate the agreement without cause upon six months' notice at any time after May 8, 1997. Termination will relieve BioChem of any further payment obligations and will end any license granted to BioChem by Vertex under the agreement. See "-- Cancer Multidrug Resistance Program."

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Alpha Therapeutic Corporation

Vertex and Alpha are collaborating on the development and commercialization of VX-366 for the treatment of sickle cell disease and beta thalassemia. Under the collaborative agreement, which commenced in October 1995, Alpha has agreed to pay Vertex up to \$5.0 million comprised of an initial license payment and development and commercialization milestone payments. From the inception of the agreement in October 1995 through December 31, 1996, \$500,000 has been recognized as revenue. In addition, Alpha is obligated to pay the costs of development of VX-366 under the collaboration. Alpha has exclusive rights to develop and commercialize VX-366 in North, Central and South America. Vertex retains rights in the rest of the world and retains all manufacturing rights worldwide. Alpha will pay Vertex a royalty based on commercial product sales and will purchase from Vertex its requirements for drug product.

Alpha has the right to terminate the agreement without cause upon six months' notice at any time. Termination will relieve Alpha of any further payment obligations under the agreement and will end any license granted to Alpha by Vertex thereunder. See "-- Hemoglobin Disorders Program."

Ravizza Farmaceutici S.p.A.

Vertex and Ravizza are collaborating to conduct clinical trials with VX-366 for beta thalassemia and sickle cell disease. Under the collaboration, which commenced in September 1994, Vertex and Ravizza will share data generated in their respective clinical trial programs. Ravizza has completed a Phase II clinical trial of VX-366 in Italy in patients with beta thalassemia. In addition, the arrangement creates a framework for negotiation of an agreement for clinical development and commercialization of VX-366 in Europe. There can be no assurance, however, that the parties will enter into any such agreement. See "-- Hemoglobin Disorders Program."

ALTUS BIOLOGICS INC.

Altus Biologics Inc. is a subsidiary of Vertex established in January 1993 to develop, manufacture and sell a class of industrial catalysts based on a novel and proprietary technology for stabilizing proteins. Altus' initial products use the Company's CLEC technology to produce cross-linked enzyme crystals.

Although enzymes are among nature's most efficient catalysts, their large-scale commercial use has been limited by their instability and general incompatibility with many industrial chemical processes. As a result of experiments conducted by Altus and several commercial partners and prospective customers, the Company believes that CLEC products have properties that overcome many of these limitations and make them superior to conventional catalysts and enzymes in certain commercial and industrial processes. The Company believes that CLEC products can be used as catalysts in the manufacture of pharmaceuticals, fine chemicals, foods and sweeteners, among other things.

Since mid-1994, Altus has launched nine commercial catalyst products in two product families: ChiroCLEC, for the preparation of optically pure pharmaceuticals and specialty chemicals, and PeptiCLEC, for use in peptide coupling reactions. Altus expects to launch additional products in 1997. Approximately 215 companies worldwide have purchased CLEC products for feasibility testing. Altus recently entered into a research and development collaboration with Ciba-Geigy Limited for the development of CLEC technology for commercial use in detergents.

Altus is conducting research and development aimed at expanding the uses of its CLEC technology to such applications as nerve gas detoxification, detergenting and anti-oxidants for cosmetics. Some of this research is supported by grants from U.S. government agencies including the National Institutes of Health, National Science Foundation and the Department of Defense.

The Company has ten United States patent applications and several foreign counterpart applications and patents relating to its CLEC technology. The Company recently received a Notice of Allowance in one of these applications.

PATENTS AND PROPRIETARY INFORMATION

The Company has rights in certain patents and pending patent applications that relate to compounds it is developing and methods of using such compounds. The Company actively seeks, when appropriate, protection for its products and proprietary information by means of United States and foreign patents, trademarks and contractual arrangements. In addition, the Company relies upon trade secrets and contractual arrangements to protect certain of its proprietary information and products.

As of February 20, 1997, the Company had a total of six United States patents and 63 United States pending patent applications. The Company also has an exclusive license under four United States patents, one of which is subject to a reissue application and a non-exclusive, worldwide license under certain Searle patent applications claiming HIV protease inhibitors. Three of the licensed patents and the reissue application claim the use of compounds, including VX-366, for treating hemoglobin disorders, including sickle cell disease and beta thalassemia. The Company has one issued United States patent and ten United States patent applications claiming antiviral compounds, and/or their uses, for treating HIV infection and AIDS. The issued patent and five of the ten applications have claims that include VX-478, the Company's lead drug candidate, within their literal scope. Vertex recently received a Notice of Allowance for claims covering the use of VX-478 to treat AIDS-related central nervous system disorders. Another of the Company's United States patent applications claims processes for preparing synthetic intermediates useful in the synthesis of a class of compounds that includes VX-478. The Company's non-exclusive, worldwide license permits Vertex to develop, manufacture and market VX-478 free of intellectual property claims by Searle. The Company has one issued United States patent and five United States patent applications claiming VX-710 and other compounds for treating multidrug resistance. Vertex recently received a Notice of Allowance for claims covering VX-710 and structurally related compounds. The issued patent claims VX-853 and structurally related compounds. The Company has two United States patent applications pending, claiming inhibitors of IMPDH, including VX-497 and related compounds. The Company has another United States patent application pending that claims the crystal structure of IMPDH and the use of that structure to design inhibitors. The Company has fourteen United States patent applications pending claiming inhibitors of ICE. Vertex recently received a Notice of Allowance in one of those applications. The Company has three patent applications pending in the United States claiming the crystal structure of ICE and derivatives thereof and various uses of those structures. The Company has five United States patent applications pending claiming the use of certain of its immunosuppressive compounds and certain of its multidrug resistance compounds for nerve growth applications. The Company also has one issued United States patent and nine patent applications pending that claim compounds useful in nerve growth application. The Company has three United States patents and four United States patent applications claiming specific immunosuppressive compounds. Vertex recently received a Notice of Allowance in two of those four applications. The Company has one United States patent application claiming a protein involved in apoptosis. The Company has one United States patent application pending claiming inhibitors of p38 MAP kinase. The Company also has one United States patent application pending claiming inhibitors of HCV protease. The Company has one United States patent application pending claiming the crystal structure of HCV protease and the use of that structure to design inhibitors. The Company has ten United States patent applications claiming CLEC technology. The Company recently received a Notice of Allowance in one of these applications. The Company has one United States patent claiming a novel device useful in pharmaceutical research. The Company also has filed international and foreign counterparts based on several of its United States patents and patent applications.

There can be no assurance that any patents will issue from any of the Company's patent applications or, even if patents issue or have issued, that the claims thereof will provide the Company with any significant protection against competitive products or otherwise be valuable commercially. Legal standards relating to the validity of patents and the proper scope of their claims in the biopharmaceutical field are still evolving, and there is no consistent policy regarding the breadth of claims allowed in biopharmaceutical patents. No assurance can be given as to the Company's ability to avoid infringing, and thus having to negotiate a license under, any patents issued to others, or that a

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license to such patents would be available on commercially acceptable terms, if at all. Further, there can be no assurance that any patents issued to or licensed by the Company will not be infringed by the products of others, which may require the Company to engage in patent infringement litigation. In addition to being a party to patent infringement litigation, the Company could be required to participate in interference proceedings declared by the United States Patent and Trademark Office. Defense or prosecution of patent infringement litigation, as well as participation in interference proceedings, can be expensive and time consuming, even in those instances in which the outcome is favorable to the Company. If the outcome of any such litigation or proceeding were adverse, the Company could be subject to significant liabilities to third parties, could be required to obtain licenses from third parties or could be required to cease sales of the affected products, any of which could have a material adverse effect on the Company. See "Risk Factors -- Uncertainty Related to Patents and Proprietary Information."

The Company has licensed on an exclusive basis four United States patents and one United States issue application from Children's Hospital. Three of these patents and the reissue application claim the use of compounds, including VX-366, in the treatment of hemoglobin disorders, including sickle cell disease and beta thalassemia. Because Children's Hospital did not foreign file the application corresponding to the reissue application within one year of filing its corresponding United States application, the Company's foreign patent rights may be limited. In addition, there can be no assurance that others will not develop independently substantially equivalent technology, obtain access to the Company's know-how or be issued patents which may prevent the sale of Company products or require licensing and the payment of significant fees or royalties by the Company in order for it to carry on its business. Furthermore, there can be no assurance that any such license will be available.

Much of the Company's technology and many of its processes are dependent upon the knowledge, experience and skills of key scientific and technical personnel. To protect its rights to its proprietary know-how and technology, the Company requires all employees, consultants, advisors and collaborators to enter into confidentiality agreements that prohibit the disclosure of confidential information to anyone outside the Company. These agreements require disclosure and assignment to the Company of ideas, developments, discoveries and inventions made by employees, consultants, advisors and collaborators. There can be no assurance that these agreements will effectively prevent disclosure of the Company's confidential information or will provide meaningful protection for the Company's confidential information if there is unauthorized use or disclosure. Furthermore, in the absence of patent protection, the Company's business may be adversely affected by competitors who independently develop substantially equivalent technology. See "-- Corporate Collaborations," and "Risk Factors -- Dependence on Collaborative Partners" and "-- Uncertainty Relating to Patents and Proprietary Information."

MANUFACTURING

The Company relies on third party manufacturers to produce its compounds for preclinical and clinical purposes and may do so for commercial production of any compounds that are approved for marketing. The Company has established a quality assurance program, including a set of standard operating procedures, intended to ensure that third party manufacturers under contract produce the Company's compounds in accordance with the FDA's current Good Manufacturing Practices ("cGMP") and other applicable regulations. See "-- Government Regulation."

The Company believes that all of its existing compounds can be produced using established manufacturing methods, primarily through standard techniques of pharmaceutical synthesis. The Company currently does not have the capacity to manufacture its potential products, is dependent on third party manufacturers or collaborative partners for the production of its compounds for preclinical research and clinical trial purposes and expects to be dependent on such manufacturers or collaborative partners for some or all commercial production of any of its compounds that are approved for marketing. The Company believes that it will be able to continue to negotiate such arrangements on commercially reasonable terms and that it will not be necessary for it to develop internal manufacturing capability in order to successfully commercialize its products. In the event that the Company is unable to obtain contract manufacturing, or obtain such manufacturing on commercially reasonable terms, it may not be able to commercialize its products as planned. The Company's objective is to maintain flexibility in deciding whether to develop internal manufacturing capabilities for certain of its potential products. The Company has no experience in manufacturing pharmaceutical or other products or in conducting manufacturing testing programs required to obtain FDA and other regulatory approvals, and there can be no assurance that the Company will develop such capabilities successfully.

Since the Company's potential products are at an early stage of development, the Company will need to improve or modify its existing manufacturing processes and capabilities to produce commercial quantities of any drug product economically. The Company cannot quantify the time or expense that may ultimately be required to improve or modify its existing process technologies, but it is possible that such time or expense could be substantial.

The production of Vertex's compounds is based in part on technology that the Company believes to be proprietary. Vertex may license this technology to contract manufacturers to enable them to manufacture compounds for the Company. There can be no assurance that such manufacturers will abide by any limitations or confidentiality restrictions in licenses with Vertex. In addition, any such manufacturer may develop process technology related to the manufacture of Vertex's compounds that such manufacturer owns either independently or jointly with the Company. This would increase the Company's reliance on such manufacturer or require the Company to obtain a license from such manufacturer in order to have its products manufactured. There can be no assurance that any such license would be available on terms acceptable to the Company, if at all.

Some of the Company's current corporate partners have certain manufacturing rights with respect to the Company's products under development, and there can be no assurance that such corporate partners' rights will not impede the Company's ability to conduct the development' rograms and commercialize any resulting products in accordance with the schedules and in the manner currently contemplated by the Company. See "Risk Factors -- Manufacturing Uncertainties; Reliance on Third Party Manufacturers."

COMPETITION

The Company is engaged in pharmaceutical fields characterized by extensive research efforts, rapid technological progress and intense competition. There are many public and private companies, including pharmaceutical companies, chemical companies and biotechnology companies, engaged in developing products for the human therapeutic applications targeted by Vertex. Further, the Company believes that interest in the application of structure-based drug design and related technologies may continue and may accelerate as the technologies become more widely understood. The Company is aware of efforts by others to develop products in each of the areas in which the Company has products in development. For example, Merck & Co., Inc., Abbott Laboratories, Inc. and Hoffmann-La Roche have HIV protease inhibitors which have been approved by the FDA for marketing, and Agouron Pharmaceuticals, Inc. has filed an NDA for an HIV protease inhibitor. The Company is also aware of other companies that have HIV protease inhibitors in development. There also are a number of competitors that have products under development for the treatment of MDR in cancer and for the treatment of hemoglobin disorders. In order for the Company to compete successfully in these areas, it must demonstrate improved safety, efficacy, ease of manufacturing and market acceptance over its competitors, who have received regulatory approval and are currently marketing. Furthermore, academic institutions, governmental agencies and other public and private research organizations are conducting research to develop technologies and products that may compete with those under development by the Company. In addition, other technologies are, or may in the future become, the basis for competing products. There can be no assurance that the Company's competitors will not succeed in developing technologies and products that are more effective than any being developed by the Company or that would render the Company's technology and products obsolete or noncompetitive. In addition, there can be no assurance that the Company's products in development will be able to compete effectively with products which are currently on the market.

Many of the Company's competitors have substantially greater financial, technical and human resources than those of the Company. In addition, many of the Company's competitors have significantly greater experience than the Company in conducting preclinical testing and human clinical trials of new pharmaceutical products, and in obtaining FDA and other regulatory approvals of products. Accordingly, certain of the Company's competitors may succeed in obtaining regulatory approval for products more rapidly than the Company. If the Company obtains regulatory approval and commences commercial sales of its products, it will also compete with respect to manufacturing efficiency and sales and marketing capabilities, areas in which it currently has no experience. See "Risk Factors -- Rapid Technological Change and Competition."

PHARMACEUTICAL PRICING AND REIMBURSEMENT

The Company's ability to commercialize its products successfully will depend in part on the extent to which appropriate reimbursement levels for the cost of such products and related treatment are obtained from government authorities, private health insurers and other organizations, such as health maintenance organizations ("HMOs"). Third party payors and government authorities are continuing efforts to contain or reduce the cost of health care. For example, in certain foreign markets, pricing and/or profitability of prescription pharmaceuticals are subject to government control. There can be no assurance that similar controls will not be implemented in the United States. Also, the trend toward managed health care in the United States and the concurrent growth of organizations such as HMOs, which could control or significantly influence the purchase of health care services and products, may result in lower prices for the Company's products. The cost containment measures that health care providers and third party payors are instituting and any proposed or future health care reform measures, including any reductions in Government reimbursement programs such as Medicaid and Medicare, could affect the Company's ability to sell its products and may have a material adverse effect on the Company.

The success of the Company's products in the United States and other significant markets will depend, in part, upon the extent to which a consumer will be able to obtain reimbursement for the cost of such products from government health administration authorities, third-party payors and other organizations. Significant uncertainty exists as to the reimbursement status of newly approved therapeutic products. Even if a product is approved for marketing, there can be no assurance that adequate reimbursement will be available. The Company is unable to predict what additional legislation or regulation relating to the health care industry or third-party coverage and reimbursement may be enacted in the future or what effect the legislation or regulation would have on the Company's business. Failure to obtain reimbursement could have a material adverse effect on the Company.

GOVERNMENT REGULATION

The Company's development, manufacture and potential sale of therapeutics are subject to extensive regulation by United States and foreign governmental authorities. In particular, pharmaceutical products are subject to rigorous preclinical and clinical testing and to other approval requirements by the FDA in the United States under the Food, Drug and Cosmetic Act and by comparable agencies in most foreign countries.

As an initial step in the FDA regulatory approval process, preclinical studies are typically conducted in animals to identify potential safety problems. For certain diseases, animal models exist that are believed to be predictive of human efficacy. For such diseases, a drug candidate is tested in an animal model. The results of the studies are submitted to the FDA as a part of the IND, which is filed to comply with FDA regulations prior to commencement of human clinical testing. For other diseases for which no appropriately predictive animal model exists, no such results can be filed. For several of the Company's drug candidates, no appropriately predictive model exists. As a result, no in vivo evidence of efficacy would be available until such compounds progress to human clinical trials.

Clinical trials are typically conducted in three sequential phases, although the phases may overlap. In Phase I, which frequently begins with the initial introduction of the drug into healthy human subjects prior to introduction into patients, the compound will be tested for safety, dosage tolerance, absorption, bioavailability, biodistribution, metabolism, excretion, clinical pharmacology and, if possible, for early information on effectiveness. Phase II typically involves studies in a small sample of the intended patient population to assess the efficacy of the drug for a specific indication, to determine dose tolerance and the optimal dose range and to gather additional information relating to safety and potential adverse effects. Phase III trials are undertaken to further evaluate clinical safety and efficacy in an expanded patient population at geographically dispersed study sites, to determine the overall risk-benefit ratio of the drug and to provide an adequate basis for physician labeling. Each trial is conducted in accordance with certain standards under protocols that detail the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND. Further, each clinical study must be evaluated by an independent Institutional Review Board ("IRB") at the institution at which the study will be conducted. The IRB will consider, among other things, ethical factors, the safety of human subjects and the possible liability of the institution.

Data from preclinical testing and clinical trials are submitted to the FDA in an NDA for marketing approval. The process of completing clinical testing and obtaining FDA approval for a new drug is likely to take a number of years and require the expenditure of substantial resources. Preparing an NDA involves considerable data collection, verification, analysis and expense, and there can be no assurance that approval will be granted on a timely basis, if at all. The approval process is affected by a number of factors, including the severity of the disease, the availability of alternative treatments and the risks and benefits demonstrated in clinical trials. The FDA may deny an NDA if applicable regulatory criteria are not satisfied or may require additional testing or information. Among the conditions for marketing approval is the requirement that the prospective manufacturer's quality control and manufacturing procedures conform to the FDA's cGMP regulations, which must be followed at all times. In complying with standards set forth in these regulations, manufacturers must continue to expend time, monies and effort in the area of production and quality control to ensure full technical compliance. Manufacturing establishments, both foreign and domestic, also are subject to inspections by or under the authority of the FDA and by or under the authority of other federal, state or local agencies.

Even after initial FDA approval has been obtained, further studies, including post-marketing studies, may be required to provide additional data on safety and will be required to gain approval for the use of a product as a treatment for clinical indications other than those for which the product was initially tested. Also, the FDA will require post-marketing reporting to monitor the side effects of the drug. Results of post-marketing programs may limit or expand further marketing of the products. Further, if there are any modifications to the drug, including changes in indication, manufacturing process, labeling or manufacturing facilities, an NDA supplement may be required to be submitted to the FDA.

The Orphan Drug Act provides incentives to drug manufacturers to develop and manufacture drugs for the treatment of diseases or conditions that affect fewer than 200,000 individuals in the United States. Orphan drug status can also be sought for diseases or conditions that affect more than 200,000 individuals in the United States if the sponsor does not realistically anticipate its product becoming profitable from sales in the United States. Under the Orphan Drug Act, a manufacturer of a designated orphan product can seek tax benefits, and the holder of the first FDA approval of a designated orphan product will be granted a seven-year period of marketing exclusivity for that product for the orphan indication. While the marketing exclusivity of an orphan drug would prevent other sponsors from obtaining approval of the same compound for the same indication, it would not prevent other types of drugs from being approved for the same use. The Company has obtained orphan drug status for VX-366 for the treatment of beta thalessemia and sickle cell disease and, in the future, may apply for orphan drug status for certain indications of MDR in cancer.

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Under the Drug Price Competition and Patent Term Restoration Act of 1984, a sponsor may be granted marketing exclusivity for a period of time following FDA approval of certain drug applications if FDA approval is received before the expiration of the patent's original term. This marketing exclusivity would prevent a third party from obtaining FDA approval for a similar or identical drug through an Abbreviated New Drug Application ("ANDA"), which is the application form typically used by manufacturers seeking approval of a generic drug. The statute also allows a patent owner to extend the term of the patent for a period equal to one-half the period of time elapsed between the filing of an IND and the filing of the Corresponding NDA plus the period of time between the filing of the NDA and FDA approval. The Company intends to seek the benefits of this statute, but there can be no assurance that the Company will be able to obtain any such benefits.

Whether or not FDA approval has been obtained, approval of a drug product by regulatory authorities in foreign countries must be obtained prior to the commencement of commercial sales of the product in such countries. Historically, the requirements governing the conduct of clinical trials and product approvals, and the time required for approval, have varied widely from country to country.

In addition to the statutes and regulations described above, the Company is also subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other present and potential future federal, state and local regulations. See "Risk Factors -- Extensive Government Regulation."

HUMAN RESOURCES

As of December 31, 1996, Vertex had 178 full-time employees, including 136 in research and development, 23 in laboratory support services and 19 in general and administrative functions, and three part-time employees. The Company's scientific staff members (58 of whom hold Ph.D. and/or M.D. degrees) have diversified experience and expertise in molecular and cell biology, biochemistry, animal pharmacology, synthetic organic chemistry, protein x-ray crystallography, protein nuclear magnetic resonance spectroscopy, computational chemistry, biophysical chemistry, medicinal chemistry, clinical pharmacology and clinical medicine. In addition, the Company's Altus subsidiary had 19 full-time employees as of December 31, 1996. The Company's employees are not covered by a collective bargaining agreement, and the Company considers its relations with its employees to be good.

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SCIENTIFIC ADVISORY BOARD

The Company's Scientific Advisory Board consists of individuals with demonstrated expertise in various fields who advise the Company concerning long-term scientific planning, research and development. The Scientific Advisory Board also evaluates the Company's research programs, recommends personnel to the Company and advises the Company on technological matters. The members of the Scientific Advisory Board, which is chaired by Dr. Vicki L. Sato, are:

Vicki L. Sato, Ph.D	Senior Vice President of Research and Development and Chief Scientific Officer, Vertex Pharmaceuticals Incorporated.
Steven J. Burakoff, M.D	Chair, Department of Pediatric Oncology, Dana- Farber Cancer Institute; Professor of Pediatrics, Harvard Medical School.
Eugene H. Cordes, Ph.D	Professor of Pharmacy and Chemistry, University of Michigan at Ann Arbor.
Jerome E. Groopman, M.D	Chief of the Division of Experimental Medicine, Beth Israel Deaconess Medical Center; Recanti Chair in Immunology and Professor of Medicine, Harvard Medical School.
Stephen C. Harrison, Ph.D	Professor of Biochemistry and Molecular Biology, Harvard University; Investigator, Howard Hughes Medical Institute; Professor of Biological Chemistry and Molecular Pharmacology and Professor of Pediatrics, Harvard Medical School.
Jeremy R. Knowles, D. Phil	Dean of the Faculty of Arts and Sciences, Harvard University; Amory Houghten Professor of Chemistry and Biochemistry, Harvard University.
Robert T. Schooley, M.D	Head, Infectious Disease Division, University of Colorado Health Sciences Center; Professor of Medicine, University of Colorado.

Other than Dr. Sato, none of the members of the Scientific Advisory Board is employed by the Company, and members may have other commitments to or consulting or advisory contracts with their employers or other entities that may conflict or compete with their obligations to the Company. Accordingly, such persons are expected to devote only a small portion of their time to the Company. In addition to its Scientific Advisory Board, Vertex has established consulting relationships with a number of scientific and medical experts who advise the Company on a project-specific basis.

FACILITIES

The Company leases an aggregate of approximately 110,000 square feet of laboratory and office space in five adjacent facilities at 40 Allston Street, 625 Putnam Avenue, 618 Putnam Avenue, 240 Sidney Street and 130 Waverly Street in Cambridge, Massachusetts. The lease to the 40 Allston Street, 618 Putnam Avenue and 240 Sidney Street facilities will expire in December 2003. The lease to the 625 Putnam Avenue facility expires in December 1998, subject to an option, at the Company's election, to extend the term through December 2000. The lease to the 130 Waverly Street facility will expire in December 2005. The Company has occupied approximately 53,000 square feet of space under this lease, with approximately 7,000 square feet of additional space available for expansion. The Company believes its facilities are adequate for its current needs. The Company believes it can obtain additional space on commercially reasonable terms.

LEGAL PROCEEDINGS

The Company is not a party to any material legal proceedings.

MANAGEMENT

DIRECTORS AND EXECUTIVE OFFICERS

The names, ages and positions held by the directors and executive officers of the Company are as follows:

NAME	AGE	POSITION
Joshua S. Boger, Ph.D	45	President and Chief Executive Officer, Director
Richard H. Aldrich	42	Senior Vice President and Chief Business Officer
Vicki L. Sato, Ph.D	48	Senior Vice President of Research and Development and Chief Scientific Officer; Chair of the Scientific Advisory Board
Iain P. M. Buchanan	43	Vice President of European Operations; Managing Director of Vertex Pharmaceuticals (Europe) Limited
Thomas G. Auchincloss, Jr	35	Vice President of Finance and Treasurer
Benno C. Schmidt	84	Chairman of the Board
Barry M. Bloom, Ph.D.(1)(3)	68	Director
Roger W. Brimblecombe, Ph.D., D.Sc.(1)	67	Director
Donald R. Conklin(2)(3)	56	Director
William W. Helman IV(2)	38	Director
Charles A. Sanders, M.D	65	Director

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(1) Member of the Compensation Committee

(2) Member of the Audit Committee

(3) Member of the Nominating Committee

The Board of Directors is divided into three classes, as nearly equal in number as possible. At each annual meeting of stockholders, the successors to the class of directors whose term expires at the meeting will be elected to hold office for a term continuing until the annual meeting held in the third year following the year of their election and until their successors are duly elected and qualified. All executive officers are elected annually by the Board of Directors to serve in their respective capacities until their successors are elected and qualified or until their earlier resignation or removal.

Dr. Boger is a founder of the Company and was its President and Chief Scientific Officer from its inception in 1989 until May 1992, when he became President and Chief Executive Officer. Dr. Boger has been a director since the Company's inception. Prior to founding the Company in 1989, Dr. Boger held the position of Senior Director of Basic Chemistry at Merck Sharp & Dohme Research Laboratories in Rahway, New Jersey, where he headed both the Department of Medicinal Chemistry of Immunology & Inflammation and the Department of Biophysical Chemistry. Dr. Boger is also a Director of Millennium Pharmaceuticals, Inc. Dr. Boger holds a B.A. in chemistry and philosophy from Wesleyan University and M.S. and Ph.D. degrees in chemistry from Harvard University.

Mr. Aldrich served as Vice President of Business Development of the Company from June 1989 to May 1992, when he became Vice President and Chief Business Officer. In December 1993, Mr. Aldrich was promoted to Senior Vice President and Chief Business Officer. He joined Vertex from Integrated Genetics, where he headed that company's business development group. Previously, he served as Program Executive at Biogen, Inc., where he coordinated worldwide commercial development of several biopharmaceuticals, and as Licensing Manager at Biogen S.A. in Geneva, Switzerland, where he

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managed European and Far Eastern licensing. Mr. Aldrich previously worked at the Boston Consulting Group, an international management consulting firm. Mr. Aldrich received a B.S. degree from Boston College and an M.B.A. from the Amos Tuck School of Business, Dartmouth College.

Dr. Sato joined Vertex in September 1992 as Vice President of Research and was appointed Senior Vice President of Research and Development in September 1994. Previously, she was Vice President, Research and a member of the Scientific Board of Biogen, Inc. As research head at Biogen, she directed research programs in the fields of inflammation, immunology, AIDS therapy and cardiovascular therapy from early research into advanced product development. Dr. Sato received an A.B. in biology from Radcliffe College and A.M. and Ph.D. degrees from Harvard University. Following postdoctoral work in chemistry and immunology at the University of California at Berkeley and Stanford Medical School, she was appointed to the faculty of Harvard University in the Department of Biology.

Mr. Buchanan joined the Company in April 1994 from Cilag AG, a subsidiary of Johnson & Johnson based in Zug, Switzerland, where he served as its Regional Licensing Director since 1987. He previously held the position of Marketing Director of Biogen, Inc. in Switzerland. Prior to Biogen, Mr. Buchanan served in Product Management at Merck Sharp & Dohme (UK) Limited. Mr. Buchanan holds a B.Sc. from the University of St. Andrews, Scotland.

Mr. Auchincloss joined the Company in October 1994 after serving as an investment banker at Bear, Stearns & Co. Inc. since 1988, most recently as Associate Director of the Corporate Finance Department. Prior to Bear Stearns, Mr. Auchincloss was a financial analyst for PaineWebber, Inc. Mr. Auchincloss holds a B.S. from Babson College and an M.B.A. from The Wharton School, University of Pennsylvania.

Mr. Schmidt has served as a member of the Board of Directors since April 1989 and as Chairman of the Board since 1991. He is a General Partner of J.H. Whitney & Co., a New York City-based venture capital firm. He is Honorary Co-Chairman of the Board of Memorial Sloan Kettering Cancer Center, senior member of the Institute of Medicine of the National Academy of Sciences and trustee of the General Motors Cancer Research Foundation. He has served as Chairman of the President's Cancer Panel under three United States Presidents. He is currently Chairman Emeritus of Freeport-McMoRan Copper & Gold, Inc. and Director Emeritus of Freeport-McMoRan Inc. and McMoRan Oil & Gas Co.

Dr. Bloom has served as a member of the Board of Directors since February 1994. Dr. Bloom was formerly with Pfizer Inc., as Executive Vice President of Research and Development from 1992 to 1993, as Senior Vice President from 1990 to 1992, as Vice President from 1971 to 1990 and as a director since 1973. Dr. Bloom is also a Director of Incyte Pharmaceuticals Inc., Neurogen Corporation, Southern New England Telecommunications Corp., Cubist Pharmaceuticals, Inc. and Catalytica Fine Chemicals.

Dr. Brimblecombe has served as a member of the Board of Directors since March 1993. Dr. Brimblecombe is currently Chairman of Vanguard Medica Ltd., Surrey, UK. Previously, he spent seventeen years at Smith Kline & French, most recently as Vice President, Collaborative Research and Development and Compound Acquisition (Worldwide), and as Chairman of Smith Kline & French Research Ltd. Prior to joining Smith Kline & French, he held positions in the UK National Health Service, Medical Research Council and Scientific Civil Service. Dr. Brimblecombe is also a director of Intercardia, Inc., Ontogeny, Inc. and several companies located in the United Kingdom.

Mr. Conklin has served as a member of the Board of Directors since February 1994. Mr. Conklin was Executive Vice President of Schering-Plough from 1986 to 1996. He was President of Schering-Plough HealthCare Products from 1994 through 1996. From 1986 to 1994, he was President of Schering-Plough Pharmaceuticals. Mr. Conklin is also a director of Cytotherapeutics, Inc. and BioTransplant Inc.

Mr. Helman has served as a member of the Board of Directors since April 1989. Mr. Helman is a General Partner of Greylock Equity Limited Partnership, Greylock Limited Partnership and Greylock Capital Limited Partnership, an original investor in the Company. He is a director of Millennium Pharmaceuticals, Inc. and several private companies.

DESCRIPTION OF CAPITAL STOCK

The Company's authorized capital stock consists of 50,000,000 shares of Common Stock, \$.01 par value, and 1,000,000 shares of Preferred Stock, \$.01 par value.

COMMON STOCK

Holders of Common Stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of Common Stock entitled to vote in any election of directors may elect all of the directors standing for election. Holders of Common Stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of funds legally available therefor, subject to any preferential dividend rights of any outstanding Preferred Stock. Upon the liquidation, dissolution or winding up of the Company, the holders of Common Stock are entitled to receive ratably the net assets of the Company available after the payment of all debts and other liabilities and subject to any prior rights of any outstanding Preferred Stock. Holders of Common Stock have no preemptive, subscription, redemption or conversion rights. The outstanding shares of Common Stock are, and the shares offered by the Company in this offering, when issued and paid for, will be, fully paid and nonassessable. The rights, preferences and privileges of holders of Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of Preferred Stock which the Company may designate and issue in the future.

As of December 31, 1996, there were 21,097,117 shares of Common Stock outstanding. Based upon the number of shares of Common Stock outstanding as of that date, and giving effect to the issuance of the 2,500,000 shares of Common Stock offered by the Company hereby (assuming that the Underwriters' over-allotment option is not exercised), there will be 23,597,117 shares of Common Stock outstanding upon the completion of this offering.

OPTIONS

As of December 31, 1996, the Company had outstanding options for the purchase of 4,032,609 shares of Common Stock at exercise prices ranging from \$6.48 per share to \$37.50 per share. Options for the purchase of 1,624,862 shares were exercisable as of that date.

STOCKHOLDER RIGHTS PLAN

Pursuant to the Company's Stockholder Rights Plan, under an amendment approved by the Board of Directors, but not yet executed by the rights agent, each share of Common Stock has an associated preferred share purchase right (a "Right"). Each Right entitles the holder to purchase from the Company one one-hundredth of a share of Series A Junior Participating Preferred Stock, \$.01 par value (the "Junior Preferred Shares"), of the Company at a price of \$270 per one one-hundredth of a Junior Preferred Share, subject to adjustment (the "Purchase Price"). The Rights are not exercisable until after the acquisition by a person or group of 15% or more of the outstanding Common Stock (an "Acquiring Person") or after the announcement of an intention to make or commencement of a tender offer or exchange offer the consummation of which would result in the beneficial ownership by a person or group of 15% or more of the outstanding Common Stock (the earlier of such dates being called the "Distribution Date"). Until a Right is exercised, the holder thereof will have no rights as a stockholder of the Company. Until the Distribution Date (or earlier redemption or expiration of the Rights), the Rights will be transferred with and only with the Common Stock.

In the event that any person or group becomes an Acquiring Person, each holder of a Right, other than Rights beneficially owned by the Acquiring Person, will thereafter have the right to receive upon exercise that number of shares of Common Stock having a market value of two times the Purchase Price, and in the event that the Company is acquired in a business combination transaction or 50% or more of its assets are sold, each holder of a Right will thereafter have the right to receive upon exercise that number of shares of common stock of the acquiring company which at the time of the transaction will have a market value of two times the Purchase Price.

At any time after any person becomes an Acquiring Person and prior to the acquisition by such person or group of 50% or more of the outstanding Common Stock, the Board of Directors of the Company may cause the Rights (other than Rights owned by such person or group) to be exchanged, in whole or in part, for Common Stock or Junior Preferred Shares, at an exchange rate of one share of Common Stock per Right or one one-hundredth of a Junior Preferred Share per Right.

At any time prior to the acquisition by a person or group of beneficial ownership of 15% or more of the outstanding Common Stock or the potential acquisition through tender offer by a person or group of 15% or more of the outstanding Common Stock, the Board of Directors of the Company may redeem the Rights in whole at a price of \$.01 per Right.

The Rights have certain anti-takeover effects, in that they will cause substantial dilution to a person or group that attempts to acquire a significant interest in the Company on terms not approved by the Board of Directors.

UNDERWRITING

Subject to the terms of and conditions of the Underwriting Agreement, the Underwriters named below (the "Underwriters"), through their Representatives, Cowen & Company, Bear, Stearns & Co. Inc., Robertson, Stephens & Company LLC and J.P. Morgan Securities Inc. have severally agreed to purchase from the Company the following respective numbers of shares of Common Stock at the public offering price less the underwriting discounts and commissions set forth on the cover page of this Prospectus:

UNDERWRITER	NUMBER OF SHARES OF COMMON STOCK
Cowen & Company Bear, Stearns & Co. Inc. Robertson, Stephens & Company LLC J.P. Morgan Securities Inc	
Total	2,500,000

The Underwriting Agreement provides that the obligations of the Underwriters are subject to certain conditions precedent and that the Underwriters will purchase all shares of the Common Stock offered hereby if any such shares are purchased.

The Company has been advised by the Representatives of the Underwriters that the Underwriters propose to offer the shares of Common Stock to the public at the public offering price set forth on the cover page of this Prospectus and to certain dealers at such price less a concession not in excess of \$ per share. The Underwriters may allow, and such dealers may reallow, a concession not in excess of \$ per share to certain other dealers. After the public offering, the offering price and other selling terms may be changed by the Representatives of the Underwriters.

The Company has granted to the Underwriters an option, exercisable not later than 30 days after the date of this Prospectus, to purchase up to 375,000 additional shares of Common Stock at the public offering price less the underwriting discounts and commissions set forth on the cover page of this Prospectus. To the extent that the Underwriters exercise such option, each of the Underwriters will have a firm commitment to purchase approximately the same percentage thereof that the number of shares of Common Stock to be purchased by it shown in the above table bears to 2,500,000, and the Company will be obligated, pursuant to the option, to sell such shares to the Underwriters. The Underwriters may exercise such option only to cover over-allotments made in connection with the sale of Common Stock offered hereby. If purchased, the Underwriters will offer such additional shares on the same terms as those on which the 2,500,000 shares are being offered.

The Company has agreed to indemnify the several Underwriters against certain liabilities, including liabilities under the Securities Act, as amended.

The Company, its directors, executive officers and certain of its stockholders, holding in the aggregate approximately 1,162,268 shares of Common Stock outstanding prior to this offering, have entered into agreements providing that, for a period of 90 days after the effective date of the Registration Statement of which this Prospectus is a part, they will not, without the prior written consent of Cowen & Company, offer for sale, sell or otherwise dispose of (or enter into any transaction which is designed to, or could reasonably be expected to, result in the disposition by any person of) any shares of Common Stock or securities convertible or exchangeable for shares of Common Stock, or sell or grant options, rights or warrants with respect to any shares of Common Stock.

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In connection with this offering, certain Underwriters and selling group members may engage in passive market making transactions in the Common Stock on the Nasdaq National Market in accordance with Rule 10b-6A under the Securities Exchange Act of 1934 or any successor rule or regulation thereto. Passive market making consists of displaying bids on the Nasdaq National Market limited by the prices of independent market makers and effecting purchases limited by such prices and in response to order flow. Net purchases by a passive market maker on each day are limited in amount to a specified percentage of the passive market maker's average daily trading volume in Common Stock during a specified prior period and must be discontinued when such limit is reached. Passive market making may stabilize the market price of Common Stock at a level above that which might otherwise prevail and, if commenced, may be discontinued at any time.

In connection with this offering, the Underwriters may over-allot or effect transactions which stabilize, maintain or otherwise affect the market price of the Company's Common Stock at levels above those which might otherwise prevail in the open market, including by entering stabilizing bids, effecting syndicate covering transactions or imposing penalty bids. A stabilizing bid means the placing of any bid, or effecting of any purchase, for the purpose of pegging, fixing or maintaining the price of the Company's Common Stock. A syndicate covering transaction means the placing of any bid on behalf of the underwriting syndicate or the effecting of any purchase to reduce a short position created in connection with the offering. A penalty bid means an arrangement that permits Cowen & Company to reclaim a selling concession from a syndicate member in connection with the offering when shares of the Company's Common Stock sold by the syndicate member are purchased in syndicate covering transactions. Such transactions may be effected on the Nasdaq National Market, in the over-thecounter market, or otherwise. Such stabilizing, if commenced, may be discontinued at any time.

LEGAL OPINIONS

The validity of the Common Stock being offered hereby will be passed upon for the Company by Warner & Stackpole LLP, Boston, Massachusetts. Kenneth S. Boger, a partner of Warner & Stackpole LLP, is an Assistant Clerk of the Company and a brother of Joshua Boger, Ph.D, the President of the Company. Warner & Stackpole LLP provides significant legal services to the Company. Warner & one of his partners are co-trustees of a trust for the benefit of Dr. Boger's children which owns Common Stock of the Company. Certain legal matters relating to the offering will be passed upon for the Underwriters by Testa, Hurwitz & Thibeault, LLP.

EXPERTS

The consolidated balance sheets as of December 31, 1995 and 1996, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 1996 are incorporated by reference in this Prospectus and have been incorporated herein in reliance on the report of Coopers & Lybrand L.L.P., independent accountants, given on the authority of that firm as experts in accounting and auditing.

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NO DEALER, SALESPERSON OR OTHER PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS, AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COMPANY OR ANY OF THE UNDERWRITERS OR ANY OTHER PERSON. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITY OTHER THAN THE SHARES OF COMMON STOCK OFFERED HEREBY, NOR DOES IT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY OF THE SECURITIES OFFERED HEREBY TO ANY PERSON IN ANY JURISDICTION IN WHICH IT IS UNLAWFUL TO MAKE SUCH AN OFFER OR SOLICITATION TO SUCH PERSON. NEITHER THE DELIVERY OF THIS PROSPECTUS NOR ANY SALE MADE HEREUNDER SHALL UNDER ANY CIRCUMSTANCES CREATE ANY IMPLICATION THAT THE INFORMATION CONTAINED HEREIN IS CORRECT AS OF ANY DATE SUBSEQUENT TO THE DATE HEREOF.

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2,500,000 SHARES

VERTEX PHARMACEUTICALS

INCORPORATED

LOGO

COMMON STOCK

PROSPECTUS

COWEN & COMPANY

BEAR, STEARNS & CO. INC.

ROBERTSON, STEPHENS & COMPANY

J.P. MORGAN & CO.

, 1997

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth all expenses, other than underwriting discount, payable by the Registrant in connection with the issuance and distribution of the securities being registered hereby. All of such expenses, except the Securities and Exchange Commission filing fee, the National Association of Securities Dealers, Inc. filing fee and the Nasdaq Additional Listing fee are estimated.

Securities and Exchange Commission filing fee	\$ 41,984
National Association of Securities Dealers, Inc. filing fee	14,355
Nasdaq Additional Listing Fee	17,500
Legal fees and expenses	150,000
Accounting fees and expenses	85,000
Printing and engraving expenses	120,000
Blue sky qualification fees and expenses	15,000
Miscellaneous	56,161
Total	\$500,000

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Part D of Article 6 of the Restated Articles of Organization of the Registrant provides that no director of the Registrant shall be personally liable to the Registrant or its stockholders for monetary damages for breach of fiduciary duty as a director. Such paragraph provides further, however, that, to the extent provided by applicable law, it will not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the Registrant or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for distributions made in violation of the Registrant's Restated Articles of Organization or which are made when the Registrant is insolvent or which renders it insolvent, (iv) for loans made to officers or directors of the Registrant which are not repaid if the director has voted for such loans and they have not been approved or ratified as loans reasonably expected to benefit the Registrant, by a majority of directors who are not recipients of such loans or the holders of a majority of voting shares, which holders are not recipients of such loans, and (v) for any transactions from which the director derived an improper personal benefit.

Article V of the Registrant's By-laws provides that the Registrant shall indemnify each of its directors and officers (including persons who serve at the Registrant's request as a director, officer or trustee of another organization in which the Registrant has any interest, direct or indirect, as a stockholder, creditor or otherwise or who serve at the Registrant's request in any capacity with respect to any employee benefit plan) against all liabilities and expenses, including amounts paid in satisfaction of judgments, in compromise or as fines and penalties and counsel fees reasonably incurred by such director or officer in connection with the defense or disposition of any action, suit or other proceeding, whether civil or criminal, in which such director or officer may be involved or with which such person may be threatened, while in office or thereafter, by reason of such person's being or having been such a director, officer or trustee, except with respect to any matter as to which such director or officer shall have been adjudicated in any proceeding not to have acted in good faith in the reasonable belief that such director's or officer's action was in the best interest of the Registrant or, to the extent that such matter relates to service with respect to an employee benefit plan, in the best interest of the participants or beneficiaries of such employee benefit plan.

As to any matter disposed of by a compromise payment by any such person, pursuant to a consent decree or otherwise, Article V of the Registrant's By-laws provides that no indemnification shall be

provided to such person for such payment or for any other expenses unless such compromise has been approved as in the best interest of the Registrant, after notice that it involves such indemnification (i) by a disinterested majority of the directors then in office, (ii) by a majority of the disinterested directors then in office, provided there has been obtained an opinion in writing of independent legal counsel to the effect that such director or officer appears to have acted in good faith in the reasonable belief that such person's action was in the best interest of the Registrant, or (iii) by the holders of a majority of the outstanding stock at the time entitled to vote for directors, voting as a single class, exclusive of any stock owned by any interested director or officer.

Article V of the Registrant's By-laws provides that expenses, including counsel fees, reasonably incurred by any director or officer in connection with the defense or disposition of any such action, suit or other proceeding may be paid from time to time by the Registrant at the discretion of a majority of the disinterested directors then in office, in advance of the final disposition thereof, upon receipt of an undertaking by such director or officer to repay the Registrant the amounts so paid if it is ultimately determined that indemnification for such expenses is not authorized under Article V of the By-laws, which undertaking may be accepted by the Registrant without reference to the financial ability of such director or officer to make repayment.

Article V of the Registrant's By-laws gives the Board of Directors of the Registrant the power to authorize the purchase and maintenance of insurance, in such amounts as the Board of Directors may from time to time deem appropriate, on behalf of any person who is or was a director, officer or agent of the Registrant, or who is or was serving at the request of the Registrant as a director, officer or agent of another organization in which the Registrant has any interest, direct or indirect, as a shareholder, creditor or otherwise, or with respect to any employee benefit plan, against any liability incurred by such person in any such capacity, or arising out of such person's status as such agent, whether or not such person is entitled to indemnification by the Registrant pursuant to Article V or otherwise and whether or not the Registrant would have the power to indemnify the person against such liability.

Section 13(b)(1 1/2) of the Massachusetts Business Corporation Law, Chapter 156B of the General Laws of Massachusetts (the "MBCL") authorizes the provisions, described above, contained in Part D of Article 6 of the Restated Articles of Organization of the Registrant.

Section 67 of the MBCL authorizes the provisions, described above, contained in Article V of the By-laws of the Registrant.

Section 65 of the MBCL provides that performance by a director, officer or incorporator of such person's duties in good faith and in a manner such person reasonably believes to be in the best interest of the corporation, and with such care as an ordinary prudent person in a like position would use under similar circumstances, shall be a complete defense to any claim asserted against such director, officer or incorporator, except as otherwise expressly provided by statute, by reason of such person's being or having been a director, officer or incorporaton.

Pursuant to Section 6(b) of the Underwriting Agreement, the Underwriters have agreed to indemnify each director of the Registrant, each officer of the Registrant who has signed the Registration Statement and any person who controls the Registrant within the meaning of the Securities Act against certain liabilities, including liabilities under the Securities Act.

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- Form of Underwriting Agreement (filed herewith). 1
- 4.1* - -Specimen stock certificate.
- 4.2* - -Stockholder Rights Plan.
- 4.3 - -Form of Amendment to the Stockholder Rights Plan (filed herewith).
- Series A Convertible Preferred Stock Purchase Agreement between the 4.4* - -Registrant and the other parties named therein, dated April 20, 1989. 4.5* Series B Convertible Preferred Stock Purchase Agreement between the - -
- Registrant and the other parties named therein, dated June 22, 1990. 4.6* Series C Convertible Preferred Stock Purchase Agreement between the - -Registrant and the party named therein, dated September 21, 1990. 5 Opinion of Warner & Stackpole LLP (filed herewith). - -
- Consent of Coopers & Lybrand L.L.P. (filed herewith). Consent of Warner & Stackpole LLP (included in Exhibit 5). 23.1 - -
- 23.2 -- Power of Attorney (included in the signature page hereto). 24

* Filed as an exhibit to the Registrant's Registration Statement on Form S-1 (Registration No. 33-40966) or amendments thereto and incorporated herein by reference.

ITEM 17. UNDERTAKINGS

Insofar as indemnification for liabilities arising under the Securities Act of 1933 (the "Securities Act") may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described under Item 14 above, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by its is against public policy as express in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant undertakes that: (i) for purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective and (ii) for the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on February 25, 1997.

VERTEX PHARMACEUTICALS INCORPORATED

/S/ JOSHUA S. BOGER

By:....JOSHUA S. BOGER PRESIDENT AND CHIEF EXECUTIVE OFFICER

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below on this Registration Statement hereby constitutes and appoints Joshua S. Boger, Thomas G. Auchincloss, Jr. and Hans D. Van Houte, and each of them with full power to act without the other, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities to sign any and all amendments to this Registration Statement (including post-effective amendments and amendments thereto) and any registration statement relating to the same offering as this Registration Statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES ACT OF 1933, THIS REGISTRATION STATEMENT HAS BEEN SIGNED BY THE FOLLOWING PERSONS IN THE CAPACITIES AND ON THE DATE INDICATED.

SIGNATURE	TITLE	DATE
/s/ JOSHUA S. BOGER JOSHUA S. BOGER	President, Chief Executive Officer and Director (Principal Executive Officer)	February 25, 1997
/s/ THOMAS G. AUCHINCLOSS, JR. THOMAS G. AUCHINCLOSS, JR.	Vice President of Finance and Treasurer (Principal Financial Officer)	February 25, 1997
HANS D. VAN HOUTE	Controller (Principal Accounting Officer)	February 25, 1997
/s/ BARRY M. BLOOM BARRY M. BLOOM	Director	February 25, 1997
/s/ ROGER W. BRIMBLECOMBE ROGER W. BRIMBLECOMBE	Director	February 25, 1997
/s/ DONALD R. CONKLIN DONALD R. CONKLIN	Director	February 25, 1997

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- -Form of Underwriting Agreement. 1
- -4.1* Specimen stock certificate.
- 4.2* - -Stockholder Rights Plan.
- Form of Amendment to the Stockholder Rights Plan (filed herewith). 4.3 - -
- 4.4* - -Series A Convertible Preferred Stock Purchase Agreement between the Registrant and the other parties named therein, dated April 20, 1989. Series B Convertible Preferred Stock Purchase Agreement between the 4.5* - -
- Registrant and the other parties named therein, dated June 22, 1990. Series C Convertible Preferred Stock Purchase Agreement between the 4.6* - -
- Registrant and the party named therein, dated September 21, 1990. Opinion of Warner & Stackpole LLP (filed herewith). 5 - -
- 23.1 - -
- Consent of Coopers & Lybrand L.L.P. (filed herewith). Consent of Warner & Stackpole LLP (included in Exhibit 5). - -23.2
- Power of Attorney (included in the signature page filed herewith). - -24

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 * Filed as an exhibit to the Registrant's Registration Statement on Form S-1 (Registration No. 33-40966) or amendments thereto and incorporated herein by reference.

DRAFT

2,500,000 Shares

VERTEX PHARMACEUTICALS INCORPORATED

Common Stock (\$.01 Par Value)

UNDERWRITING AGREEMENT

March __, 1997

COWEN & COMPANY BEAR, STEARNS & CO. INC. ROBERTSON, STEPHENS & COMPANY LLC J.P. MORGAN SECURITIES INC. As Representatives of the several Underwriters c/o Cowen & Company One Financial Square New York, New York 10005

Ladies and Gentlemen:

1. INTRODUCTORY. Vertex Pharmaceuticals Incorporated, a Massachusetts corporation (the "Company"), proposes to sell, pursuant to the terms of this Agreement, to the several underwriters named in SCHEDULE A hereto (the "Underwriters," or, each, an "Underwriter"), an aggregate of 2,500,000 shares of Common Stock, \$.01 par value (the "Common Stock"), of the Company. The aggregate of 2,500,000 shares so proposed to be sold is hereinafter referred to as the "Firm Stock." The Company also proposes to sell to the Underwriters, upon the terms and conditions set forth in Section 3 hereof, up to an additional 375,000 shares of Common Stock (the "Optional Stock"). The Firm Stock and the Optional Stock are hereinafter collectively referred to as the "Stock." Cowen & Company ("Cowen"), Bear, Stearns & Co. Inc. ("Bear, Stearns"), Robertson, Stephens & Company LLC ("Robertson") and J.P. Morgan Securities Inc. ("J.P. Morgan") are acting as representatives of the several Underwriters and in such capacity are hereinafter referred to as the "Representatives."

2. REPRESENTATIONS AND WARRANTIES OF THE COMPANY. The Company represents and warrants to, and agrees with, the several Underwriters that:

(a) A registration statement on Form S-3 (File No. 333-____) in the form in which it became or becomes effective and also in such form as it may be when any post-effective amendment thereto shall become effective with respect to the Stock, including any preeffective prospectuses included as part of the registration statement as originally filed or as part of any amendment or supplement thereto, or filed pursuant to Rule 424 under the Securities Act of 1933, as amended (the "Securities Act"), and the rules and regulations (the "Rules and Regulations") of the Securities and Exchange Commission (the "Commission") thereunder,

copies of which have heretofore been delivered to you, and, to the extent applicable, were identical to the electronically transmitted copies thereof filed with the Commission pursuant to the Commission's Electronic Data Gathering, Analysis and Retrieval System ("EDGAR"), except to the extent permitted by Regulation S-T, has been carefully prepared by the Company in conformity with the requirements of the Securities Act and has been filed with the Commission under the Securities Act; one or more amendments to such registration statement, including in each case an amended preeffective prospectus, copies of which amendments have heretofore been delivered to you, and, to the extent applicable, were identical to the electronically transmitted copies thereof filed with the Commission pursuant to the Commission's Electronic Data Gathering, Analysis and Retrieval System ("EDGAR"), except to the extent permitted by Regulation S-T, have been so prepared and filed. If it is contemplated, at the time this Agreement is executed, that a post-effective amendment to the registration statement will be filed and must be declared effective before the offering of the Stock may commence, the term "Registration Statement" as used in this Agreement means the registration statement as amended by said post-effective amendment. The term "Registration Statement" as used in this Agreement shall also include any registration statement relating to the Stock that is filed and declared effective pursuant to Rule 462(b) under the Securities Act. The term "Prospectus" as used in this Agreement means the prospectus in the form included in the Registration Statement, or, (A) if the prospectus included in the Registration Statement omits information in reliance on Rule 430A under the Securities Act and such information is included in a prospectus filed with the Commission pursuant to Rule 424(b) under the Securities Act, the term "Prospectus" as used in this Agreement means the prospectus in the form included in the Registration Statement as supplemented by the addition of the Rule 430A information contained in the prospectus filed with the Commission pursuant to Rule 424(b) and (B) if prospectuses that meet the requirements of Section 10(a) of the Securities Act are delivered pursuant to Rule 434 under the Securities Act, then (i) the term "Prospectus" as used in this Agreement means the "prospectus subject to completion" (as such term is defined in Rule 434(g) under the Securities Act) as supplemented by (a) the addition of Rule 430A information or other information contained in the form of prospectus delivered pursuant to Rule 434(b)(2) under the Securities Act or (b) the information contained in the term sheets described in Rule 434(b)(3) under the Securities Act, and (ii) the date of such prospectuses shall be deemed to be the date of the term sheets. The term "Preeffective Prospectus" as used in this Agreement means the prospectus subject to completion in the form included in the Registration Statement at the time of the initial filing of the Registration Statement with the Commission, and as such prospectus shall have been amended from time to time prior to the date of the Prospectus. Any reference herein to any Preeffective Prospectus or the prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Form S-3 under the Securities Act, as of the date of such Preeffective Prospectus or Prospectus, as the case may be, and any reference to any amendment or supplement to any Preeffective Prospectus or the Prospectus shall be deemed to refer to and include any documents filed after such date under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and so incorporated by reference. For purposes of this Agreement, all references to the Registration Statement, any Preliminary Prospectus, the Prospectus, or any amendment or supplement to any of the foregoing, shall be deemed to include the respective copies thereof filed with the Commission pursuant to EDGAR.

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(b) The Company owns or controls, directly or indirectly, only the following corporations, associations or other entities: Altus Biologics Inc., Vertex Pharmaceuticals Securities Corporation and Versal Technologies, Inc. (hereinafter referred to collectively as the "Subsidiaries"). Each of the Subsidiaries have been duly incorporated and are validly existing as corporations in good standing (or the legal equivalent) under the laws of their respective jurisdictions of incorporation, have full corporate power and authority to own or lease their properties and conduct their businesses as described in the Registration Statement and as being conducted and are duly qualified or licensed to transact business in all jurisdictions in which the character of the property owned or leased or the nature of the business transacted by them requires such qualification (except where the failure to be so qualified would not have a material adverse effect on the business, properties, operations, financial conditions, income or business prospects of the Company and the Subsidiaries, taken as a whole, as presently being conducted). All of the outstanding shares of capital stock of the Subsidiaries have been duly authorized and validly issued, are fully paid and non-assessable, and are owned by the Company free and clear of all liens, encumbrances and security interests, and, except for (i) Altus Biologics Inc., as to which options to purchase __% of the common stock of Altus Biologics Inc., calculated on a fully-diluted basis have been issued and (ii) Versal Technologies, Inc., as to which options to purchase __% of the common stock of Versal Technologies, Inc., calculated on a fully-diluted basis have been issued, no outstanding options, warrants or other rights to purchase, agreements or other obligations to issue, or other rights to convert any obligations into shares of capital stock or ownership interests in the Subsidiaries are outstanding.

(c) The Company and the Subsidiaries now hold, and at the First Closing Date (as hereinafter defined) will hold, all material licenses, certificates and permits from state, Federal, and other regulatory authorities that are necessary for the conduct of their respective businesses as they are presently conducted, except where the failure to hold such licenses, certificates and permits would not have a material adverse effect on the business, properties, operations, financial conditions, income or business prospects of the Company and the Subsidiaries, taken as a whole; neither the Company nor any of the Subsidiaries is in violation of its respective corporate charter or by-laws, or in default in the performance or observance of any provision of any obligation, agreement, covenant, or condition contained in a bond, debenture, note, or other evidence of indebtedness or in any contract, indenture, mortgage, loan agreement, joint venture, or other material agreement or instrument to which the Company or any of the Subsidiaries is a party or by which the Company or any of the Subsidiaries or any of their respective properties may be bound, or is in violation of any law, order, rule, regulation, writ, injunction, or decree of any government, governmental instrumentality, or court, domestic or foreign, except where such violation would not have a material adverse effect on the business, properties, operations, financial conditions, income or business prospects of the Company and the Subsidiaries, taken as a whole, as presently being conducted.

(d) Except as disclosed in the Prospectus, the Company and the Subsidiaries own, or possess adequate rights to use, all patents, patent rights, inventions, trade secrets, know-how, proprietary techniques, including processes and substances, trademarks, service marks, trade names and copyrights described or referred to in the Prospectus or owned or used by them or

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which are necessary for the conduct of their respective businesses as they are presently or proposed to be conducted, except where the failure to own or possess, such patents, patent rights, inventions, trade secrets, know-how, proprietary techniques, including processes and substances, trademarks service marks, trade names and copyrights would not have a material adverse effect on the business, properties, operations, financial condition or income of the Company and the Subsidiaries, taken as a whole. Except as disclosed in the Prospectus, neither the Company nor any of the Subsidiaries has received notice of infringement of or conflict with asserted rights of others with respect to any patents, patent rights, inventions, trade secrets, know-how, proprietary techniques, including processes and substances, trademarks, service marks, tradenames or copyrights which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would materially adversely affect the business, properties, operations, financial condition, income or business prospects of the Company and the Subsidiaries, taken as a whole, as presently being conducted or as proposed to be conducted.

(e) This Agreement has been duly authorized, executed and delivered by the Company and is a valid and binding agreement enforceable against the Company in accordance with its terms; the execution, delivery and performance of this Agreement and the consummation of the transactions herein and therein contemplated will not result in a breach or violation of any of the terms and provisions of, or constitute a default under, (i) any material indenture, mortgage, deed of trust, loan agreement, bond, debenture, note agreement, or other evidence of indebtedness, lease, contract or other agreement or instrument to which the Company or any of the Subsidiaries is a party or by which the property of the Company or any of the Subsidiaries, respectively, or (iii) any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or of any of the Subsidiaries; and no consent, approval, authorization or order of any court or governmental agency or body is required for the consummation by the Company of the transactions herein contemplated, except such as may be required under the Securities Act or under applicable state securities laws.

(f) Except as set forth in the Prospectus, there is not now, and as of or prior to the First Closing Date there will not be, any action, suit or proceeding, at law or in equity, against the Company by a private litigant, by any Federal, state, or other commission, board or agency, or any proceedings before any administrative agency pending or, to the knowledge of the Company, threatened, wherein any unfavorable decision, ruling or finding could adversely affect the business, properties, operations, financial condition, income or business prospects of the Company and the Subsidiaries, taken as a whole, as presently being conducted, or prevent consummation of the transactions contemplated hereby.

(g) The capitalization of the Company as of December 31, 1996 is as set forth under the caption "Capitalization" in the Registration Statement and the Prospectus, and the Common Stock conforms to the description thereof set forth under the caption "Description of Capital Stock" in the Registration Statement and the Prospectus. The outstanding shares of Common Stock of the Company have been duly authorized and validly issued and are fully-paid and non-assessable. The Stock has been duly and validly authorized, and when issued and paid

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for on the First Closing Date and the Option Closing Date (each as hereinafter defined) will be duly and validly issued, fully paid and non-assessable; there are no preemptive rights or other rights to subscribe for or to purchase, or any restriction upon the voting or transfer of the Stock; and there are no outstanding options, warrants or other rights, granted to or by the Company to purchase shares of Common Stock or other securities of the Company other than and described in the Prospectus, except for options for shares of Common Stock granted after December 31, 1996, and, to the knowledge of the Company, no person is a beneficial owner of five (5%) percent or more of the Common Stock of the Company as of _____, ____ except as set forth in the Company's definitive proxy statement for its 1996 annual meeting of stockholders. No holders of shares of Common Stock or other securities of the Company has the right (other than a right which has been waived) to have any securities owned by such holder included in the Registration Statement. No further approval or authority of the stockholders or the Board of Directors of the Company will be required for the issuance and sale of the Shares as contemplated herein. A registration statement relating to the Common Stock has been declared effective by the Commission pursuant to the Exchange Act and the Common Stock is duly registered thereunder. The Stock has been approved for designation on the National Association of Securities Dealers, Inc. Automated Quotations/National Market ("Nasdaq National Market"), subject to notice of issuance or sale of the Stock, as the case may be. The Company knows of no reason or set of facts which is likely to result in the termination of inclusion of such Stock in the Nasdaq National Market or the inability of the Stock to continue to be included in the Nasdaq National Market.

(h) Since the respective dates as of which information is given in the Registration Statement and the Prospectus, there has not been any material adverse change in the business, properties, operations, financial condition, income or business prospects of the Company and the Subsidiaries, taken as a whole, whether or not arising from transactions in the ordinary course of business, other than as set forth in the Registration Statement and the Prospectus, and since such dates, neither the Company nor the Subsidiaries have entered into any material transaction not referred to in the Registration Statement and the Prospectus.

(i) The Commission has not issued an order preventing or suspending the use of any Preeffective Prospectus or the Prospectus, nor has it instituted proceedings for that purpose and each Preeffective Prospectus, at the time of filing thereof, did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Registration Statement, the Preeffective Prospectus and the Prospectus comply, and on the First Closing Date and the Option Closing Date the Prospectus will comply, in all material respects with the provisions of the Securities Act and the rules and regulations of the Commission thereunder. There are no contracts or documents of the Company or of any of the Subsidiaries which would be required to be filed as exhibits to the Registration Statement by the Securities Act or by the rules and regulations of the Commission which have not been filed as exhibits to the Registration Statement or incorporated by reference therein. On the Effective Date and at all times subsequent thereto up to and including the First Closing Date and the Option Closing Date, neither the Registration Statement nor any amendment thereto, and neither the Preeffective Prospectus or the Prospectus, nor any supplement thereto, contains or will contain any untrue statement of a

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material fact or omits or will omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading; provided, however, that none of the representations and warranties in this subsection (i) shall apply to statements in or omissions from the Registration Statement, the Preeffective Prospectus or the Prospectus made in reliance upon and in conformity with written information furnished to the Company by or on behalf of any Underwriter specifically for use in the preparation thereof.

(j) The financial statements of the Company, together with related notes thereto as included or incorporated by reference in the Registration Statement, the Preeffective Prospectus and the Prospectus, present fairly the financial position and the results of operations of the Company, at the indicated dates and for the indicated periods. Such financial statements have been prepared in accordance with generally accepted accounting principles, consistently applied throughout the periods involved, and all adjustments necessary for a fair presentation of results for such periods have been made. The summary and selected financial data included in the Registration Statement and the Prospectus present fairly the information shown therein and have been compiled on a basis consistent with the financial statements incorporated by reference therein.

(k) The Company and the Subsidiaries have good and marketable title to all the properties and assets reflected in the financial statements (or as described in the Registration Statement) hereinabove described subject to no liens, mortgages, pledges, charges or encumbrances of any kind except those reflected in such financial statements (or as described in the Registration Statement) or which are not material in amount. The Company and the Subsidiaries occupy their leased properties under valid and binding leases conforming to the description thereof set forth in the Registration Statement.

(1) All material leases, contracts and agreements referred to in or filed as exhibits to the Registration Statement to which the Company or any of the Subsidiaries is a party or by which the Company or any of the Subsidiaries is bound, are in full force and effect or have expired or terminated in accordance with their terms or have been superseded by leases, contracts or agreements referred to in the Registration Statement or subsequently filed as exhibits to the Registration Statement.

(m) The documents which are incorporated by reference in the Registration Statement, the Preeffective Prospectus and the Prospectus or from which information is so incorporated by reference, when they became effective or were filed with the Commission, as the case may be, complied in all material respects with the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations thereunder, and any documents so filed and incorporated by reference subsequent to the Effective Date shall, when they are filed with the Commission, conform in all material respects with the requirements of the Exchange Act and the rules and regulations thereunder.

(n) The Company and each of the Subsidiaries have filed all Federal, state and foreign tax returns which have been required to be filed (or have obtained any required extensions in connection therewith) and have paid all taxes indicated by said returns and all

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assessments received by them to the extent that such taxes have become due and are not being contested in good faith, except where the failure to file such returns would not have a material adverse effect on the business, properties, operations, financial condition, income or business prospects of the Company and the Subsidiaries, taken as a whole. The Company has no knowledge of any tax deficiency which has been or might be asserted against it which would materially and adversely affect the business or properties of the Company or any of its Subsidiaries. To the knowledge of the Company, all tax liabilities are adequately provided for on the books of the Company or its Subsidiaries.

(o) Each approval, consent, order, authorization, designation, declaration, or filing by or with any regulatory, administrative or other governmental body necessary in connection with the execution and delivery by the Company of this Agreement and the consummation of the transactions herein contemplated has been obtained or made and is in full force and effect, except such steps as may be required by the National Association of Securities Dealers, Inc. (herein called the "NASD") or as may be necessary to qualify the Stock for public offering by the Underwriters under state securities laws or filing requirements under Rule 424(b) or Rule 430A.

(p) To the Company's knowledge, Coopers & Lybrand L.L.P., who have certified certain of the financial statements included or incorporated by reference in the Registration Statement, are independent public accountants as required by the Securities Act and the rules and regulations thereunder.

(q) The Company and its Subsidiaries are not, and do not intend to conduct their business in a manner in which any of them would become, an "investment company" as defined in Section 3(a) of the Investment Company Act of 1940, as amended ("Investment Company Act").

(r) The Company confirms as of the date hereof that it is in compliance with all provisions of Section 1 of Laws of Florida, Chapter 92-198, An Act Relating to Disclosure of Doing Business with Cuba, and the Company further agrees that if it commences engaging in business with the government of Cuba or with any person or affiliate located in Cuba after the date the Registration Statement becomes or has become effective with the Commission or with the Florida Department of Banking and Finance (the "Department"), whichever date is later, or if the information reported in the Prospectus, if any, concerning the Company's business with Cuba or with any person or affiliate located in Cuba changes in any material way, the Company will provide the Department notice of such business or change, as appropriate, in a form acceptable to the Department.

(s) Neither the Company nor any of its officers, directors or affiliates has taken or will take, directly or indirectly, any action designed or intended to stabilize or manipulate the price of any security of the Company, or which caused or resulted in, or which might in the future reasonably be expected to cause or result in, stabilization or manipulation of the price of any security of the Company.

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(t) The Company is not involved in any labor dispute nor is any such dispute threatened. The Company is not aware that (A) any executive, key employee or significant group of employees of the Company or any subsidiary plans to terminate his or her employment with the Company or any such subsidiary or (B) any such executive or key employee is subject to any noncompete, nondisclosure, confidentiality, employment, consulting or similar agreement that would be violated by the present or proposed business activities of the Company and its subsidiaries. Neither the Company nor any subsidiary has or expects to have any liability for any prohibited transaction or funding deficiency or any complete or partial withdrawal liability with respect to any pension, profit sharing or other plan which is subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), to which the Company or any subsidiary makes or ever has made a contribution and in which any employee of the Company or any subsidiary is or has ever been a participant. With respect to such plans, the Company and each subsidiary are in compliance in all material respects with all applicable provisions of ERISA.

(u) The Company and its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are customary in the businesses in which they are engaged or propose to engage after giving effect to the transactions described in the Prospectus; and neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue their business at a cost that would not materially and adversely affect the condition, financial or otherwise, or the earnings, business or operations of the Company and its Subsidiaries considered as a whole.

(v) Other than as contemplated by this Agreement, there is no broker, finder or other party that is entitled to receive from the Company any brokerage or finder's fee or other fee or commission as a result of any of the transactions contemplated by this Agreement.

(w) The Company and each of its Subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

(x) To the Company's knowledge, neither the Company nor any of its Subsidiaries nor any employee or agent of the Company or any of its Subsidiaries has made any payment of funds of the Company or any of its Subsidiaries or received or retained any funds in violation of any law, rule or regulation, which payment, receipt or retention of funds is of a character required to be disclosed in the Prospectus.

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(y) Each certificate signed by any officer of the Company and delivered to the Underwriters or counsel for the Underwriters shall be deemed to be a representation and warranty by the Company as to the matters covered thereby.

(z) The Company and the Subsidiaries are in all material respects in compliance with, and conduct their businesses in conformity with, all applicable federal, state, local and foreign laws, rules and regulations or any court or governmental agency or body, including without limitation those of the FDA; to the knowledge of the Company, otherwise than as set forth in the Registration Statement and the Prospectus, no prospective change in any of such federal or state laws, rules or regulations has been adopted which, when made effective, would have a material adverse effect on the operations of the Company and its subsidiaries.

3. PURCHASE BY, AND SALE AND DELIVERY TO, UNDERWRITERS - CLOSING DATES. The Company agrees to sell to the Underwriters the Firm Stock, and on the basis of the representations, warranties, covenants and agreements herein contained, but subject to the terms and conditions herein set forth, the Underwriters agree, severally and not jointly, to purchase the Firm Stock from the Company, the number of shares of Firm Stock to be purchased by each Underwriter being set opposite its name in SCHEDULE A, subject to adjustment in accordance with Section 12 hereof.

The purchase price per share to be paid by the Underwriters to the Company will be \qquad per share (the "Purchase Price").

The Company will deliver the Firm Stock to the Representatives for the respective accounts of the several Underwriters (in the form of definitive certificates, issued in such names and in such denominations as the Representatives may direct by notice in writing to the Company given at or prior to 12:00 noon, Boston time, on the second full business day preceding the First Closing Date (as defined below) or, if no such direction is received, in the names of the respective Underwriters or in such other names as Cowen may designate (solely for the purpose of administrative convenience) and in such denominations as Cowen may determine, against payment of the aggregate Purchase Price therefor by certified or official bank check or checks in Clearing House funds (next day funds), payable to the order of the Company, all at the offices of Testa, Hurwitz & Thibeault, LLP, High Street Tower, 125 High Street, Boston, MA 02110. The time and date of the delivery and closing shall be at 10:00 A.M., Boston time, on _____, 1997, in accordance with Rule 15c6-1 of the Exchange Act. The time and date of such payment and delivery are herein referred to as the "First Closing Date." The First Closing Date and the location of delivery of, and the form of payment for, the Firm Stock may be varied by agreement between the Company and Cowen. The First Closing Date may be postponed pursuant to the provisions of Section 12.

The Company shall make the certificates for the Firm Stock available to the Representatives for examination on behalf of the Underwriters not later than 10:00 A.M., Boston time, on the business day preceding the First Closing Date at the offices of Cowen & Company, Financial Square, New York, New York 10005.

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It is understood that Cowen, Bear, Stearns, Robertson or J.P. Morgan, individually and not as Representatives of the several Underwriters, may (but shall not be obligated to) make payment to the Company on behalf of any Underwriter or Underwriters, for the Stock to be purchased by such Underwriter or Underwriters. Any such payment by Cowen, Robertson or Bear, Stearns, shall not relieve such Underwriter or Underwriters from any of its or their other obligations hereunder.

The several Underwriters agree to make a public offering of the Firm Stock at the public offering price as soon after the effectiveness of the Registration Statement as in their judgment is advisable. The Representatives shall promptly advise the Company of the making of the initial public offering.

For the purpose of covering any over-allotments in connection with the distribution and sale of the Firm Stock as contemplated by the Prospectus, the Company hereby grants to the Underwriters an option to purchase an aggregate of up to 375,000 additional shares of Common Stock. The price per share to be paid for the Optional Stock shall be the Purchase Price. The option granted hereby may be exercised as to all or any part of the Optional Stock at any time, and from time to time, not more than thirty (30) days subsequent to the effective date of this Agreement. No Optional Stock shall be sold and delivered unless the Firm Stock previously has been, or simultaneously is, sold and delivered. The right to purchase the Optional Stock or any portion thereof may be surrendered and terminated at any time upon notice by the Underwriters to the Company.

The option granted hereby may be exercised by the Underwriters by giving written notice from Cowen to the Company setting forth the number of shares of the Optional Stock to be purchased by them and the date and time for delivery of and payment for the Optional Stock. Each date and time for delivery of and payment for the Optional Stock (which may be the First Closing Date, but not earlier) is herein called the "Option Closing Date" and shall in no event be earlier than two (2) business days nor later than ten (10) business days after written notice is given. (The Option Closing Date and the First Closing Date are herein called the "Closing Dates".) All purchases of the Optional Stock from the Company shall be made on a pro rata basis. The Optional Stock shall be purchased for the account of each Underwriter in the same proportion as the number of shares of Firm Stock set forth opposite such Underwriter's name in SCHEDULE A hereto bears to the total number of shares of Firm Stock (subject to adjustment by the Underwriters to eliminate odd lots). Upon exercise of the option by the Underwriters, the Company agrees to sell to the Underwriters the number of shares of Optional Stock set forth in the written notice of exercise and the Underwriters agree, severally and not jointly and subject to the terms and conditions herein set forth, to purchase the number of such shares determined as aforesaid.

The Company will deliver the Optional Stock to the Underwriters (in the form of definitive certificates, issued in such names and in such denominations as the Representatives may direct by notice in writing to the Company given at or prior to 12:00 Noon, Boston Time, on the second full business day preceding the Option Closing Date or, if no such direction is received, in the names of the respective Underwriters or in such other names as Cowen may

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designate (solely for the purpose of administrative convenience) and in such denominations as Cowen may determine), against payment of the aggregate Purchase Price therefor by certified or official bank check or checks in Clearing House funds (next day funds), payable to the order of the Company all at the offices of Testa, Hurwitz & Thibeault, LLP, High Street Tower, 125 High Street, Boston, Massachusetts 02110. The Company shall make the certificates for the Optional Stock available to the Underwriters for examination not later than 10:00 A.M., Boston Time, on the business day preceding the Option Closing Date at the offices of Cowen & Company, One Financial Square, New York, New York 10005. The Option Closing Date and the location of delivery of, and the form of payment for, the Optional Stock may be varied by agreement between the Company and Cowen. The Optional Closing Date may be postponed pursuant to the provisions of Section 12.

 ${\tt 4.}$ COVENANTS AND AGREEMENTS OF THE COMPANY. The Company covenants and agrees with the several Underwriters that:

(a) The Company will (i) if the Company and the Representatives have determined not to proceed pursuant to Rule 430A, use its best efforts to cause the Registration Statement to become effective, (ii) if the Company and the Representatives have determined to proceed pursuant to Rule 430A, use its best efforts to comply with the provisions of and make all requisite filings with the Commission pursuant to Rule 430A and Rule 424 of the Rules and Regulations and (iii) if the Company and the Representatives have determined to deliver Prospectuses pursuant to Rule 434 of the Rules and Regulations, to use its best efforts to comply with all the applicable provisions thereof.

(b) The Company will promptly notify each Underwriter in the event of (i) the request by the Commission for amendment of the Registration Statement or for supplement to the Prospectus or for any additional information, (ii) the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, (iii) the institution or notice of intended institution of any action or proceedings for that purpose, (iv) the receipt by the Company of any notification with respect to the suspension of the qualification of the Stock for sale in any jurisdiction or any action by the NASD suspending or terminating the inclusion of the Stock in the Nasdaq National Market, or (v) the receipt by the Company of notice of the initiation or threat of any proceedings for such purpose. The Company will make every reasonable effort to prevent the issuance of such a stop order and, if such an order shall at any time be issued, to obtain the withdrawal thereof at the earliest possible moment.

(c) The Company will (i) on or before the First Closing Date, deliver to each of you a signed copy of the Registration Statement as originally filed and each amendment thereto filed prior to the time the Registration Statement becomes effective and, promptly upon the filing thereof, a signed copy of each post-effective amendment, if any, to the Registration Statement (together with, in each case, all exhibits thereto unless previously furnished to you), (ii) deliver to each of you additional conformed copies of each of the foregoing (but without exhibits), (iii) deliver to each of you, at such office or offices you may designate, as many copies of the Prospectus as you may reasonably request, and (iv) thereafter from time to time during the period in which a prospectus is required by law to be delivered by an Underwriter or dealer, likewise

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send to each of you as many additional copies of the Prospectus and as many copies of any supplement to the Prospectus and of any amended Prospectus, filed by the Company with the Commission, as you may reasonably request for the purposes contemplated by the Securities Act. The foregoing delivery requirements shall include any document filed under the Exchange Act and deemed to be incorporated by reference into the Prospectus. To the extent applicable, the copies of the Registration Statement and each amendment thereto (including all exhibits filed therewith), any Preliminary Prospectus or Prospectus (in each case, as amended or supplemented) furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(d) If at any time during the period in which a Prospectus is required by law to be delivered by any Underwriter or dealer any event relating to or affecting the Company, or of which the Company shall be advised in writing by you, shall occur as a result of which it is necessary, in the opinion of counsel for the Company or of counsel for the Underwriters, (i) to file under the Exchange Act any document which would be deemed to be incorporated by reference in the Prospectus in order to comply with the Securities Act or the Exchange Act, or (ii) to supplement or amend the Prospectus in order to make the Prospectus not misleading in the light of the circumstances existing at the time it is delivered to a purchaser of the Stock, the Company will forthwith prepare and file with the Commission (x) a document to effect such compliance, or (y) a supplement to the Prospectus or an amended prospectus so that the Prospectus as so supplemented or amended will not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances existing at the time such Prospectus is delivered to such purchaser, not misleading. The Company authorizes the Underwriters and all dealers to whom any of the Stock may be sold by the Underwriters to use the Prospectus, as from time to time amended or supplemented, in connection with the sale of the Stock in accordance with the applicable provisions of the Securities Act and the applicable rules and regulations thereunder for such period.

(e) Prior to the filing thereof with the Commission, the Company will submit to you, for your approval after reasonable notice thereof, such approval not to be unreasonably withheld or delayed, a copy of any post-effective amendment to the Registration Statement proposed to be filed or a copy of any document proposed to be filed under the Exchange Act before the termination of the offering of the Shares by the Underwriters if such document would be deemed to be incorporated by reference into the Registration Statement or Prospectus.

(f) The Company will cooperate, when and as requested by you, in the qualification of the Stock for offer and sale under the Securities or blue sky laws of such jurisdictions as you may designate and, during the period in which a Prospectus is required by law to be delivered by an Underwriter or dealer, in keeping such qualifications in good standing under said securities or blue sky laws; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation in any jurisdiction in which it is not so qualified or to take any action which would subject it to taxation as doing business in a jurisdiction where it is not now doing business. The Company

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will, from time to time, prepare and file such statements, reports, and other documents as are or may be required to continue such qualifications in effect for so long a period (not in excess of 180 days after the commencement of the public offering of the Stock by the Underwriters) as you may reasonably request for distribution of the Stock.

(g) During a period of two years commencing with the date hereof, the Company will furnish to the Underwriters copies of all periodic and special reports furnished to stockholders of the Company and of all information, documents and reports filed with the Commission. The Company will deliver to the Underwriters similar information with respect to any significant subsidiaries, if any, as that term is defined in the rules and regulations of the Commission, which are not consolidated in the Company's financial statements. To the extent applicable, the copies of the Registration Statement and each amendment thereto (including all exhibits filed therewith), any Preliminary Prospectus or Prospectus (in each case, as amended or supplemented) furnished to the Underwriters will be identical tot he electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(h) Not later than the 45th day following the end of the fiscal quarter first occurring after the first anniversary of the "effective date of the registration statement" (as defined in Rule 158(c) under the Securities Act), the Company will make generally available to its security holders in the manner contemplated by Rule 158(b) under the Securities Act an earning statement in accordance with Section 11(a) of the Securities Act and the rules and regulations thereunder.

(i) The Company agrees that, without the prior written consent of Cowen & Company on behalf of the Representatives and the Underwriters, the Company will not sell, offer, contract to sell, grant any option to purchase or otherwise dispose of any shares of Common Stock or any securities convertible into or exchangeable for or warrants to purchase Common Stock for a period of 90 days after the effective date of the Registration Statement, other than (i) the Stock to be sold to the Underwriters pursuant to this Agreement, (ii) shares of Common Stock issued upon the exercise of options granted under the Company's 199___ Stock Option Plan (the "Option Plan") or upon the exercise of warrants previously issued, and (iii) options to purchase Common Stock granted under the Option Plan and (iv) shares of Common Stock issued under the Company's Employee Stock Purchase Plan. For purposes of this Section 6(k) a sale, offer, option or disposition shall be deemed to include any sale to an institution which can, following such sale, sell Common Stock to the public in reliance on Rule 144A, but shall not include a sale, offer, option or disposition under circumstance where the holder may not, for a period of at least 90 days after the commencement of the public offering of the Stock by the Underwriters, sell the shares of Common Stock acquired by the holder to the public.

(j) The Company agrees that, without the prior written consent of Cowen on behalf of the Representatives and the Underwriters, the Company will not register under the Securities Act for a period of 90 days after the commencement of the public offering of the Stock by the Underwriters any shares of Common Stock issuable upon exercise of options granted under the Option Plan or any other benefit plans.

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(k) The Company shall cause each officer and director of the Company that has not furnished to you such a letter or letters prior to the date of this Agreement to furnish to you, on the date of this Agreement, a letter or letters, in form and substance satisfactory to counsel for the Underwriters, pursuant to which each such person shall agree not to offer for sale, sell, distribute or otherwise dispose of any shares of Common Stock during the 90 days following the Effective Date, except with the prior written consent of Cowen.

(1) The Company will use the net proceeds received by it from the sale of the Stock being sold by it in the manner specified in the Prospectus.

5. PAYMENT OF EXPENSES. (a) The Company agrees to pay all costs and expenses incident to the performance of the obligations of the Company under this Agreement, including all costs and expenses incident to (i) the preparation, printing and filing with the Commission and the NASD of the Registration Statement, any Preeffective Prospectus and the Prospectus (including, without limitation the fees and expenses of the Company's accountants and counsel), (ii) the furnishing to the Underwriters of copies of any Preeffective Prospectus and of the several documents required by Section 4(c) to be so furnished, (iii) the preparation, printing and filing of all supplements and amendments to the Prospectus referred to in Section 4(d), (iv) the furnishing to the Underwriters of the reports and information referred to Section 4(g), (v) the printing, issuance of stock certificates, including the transfer agent's fees, (vi) the reproduction of this Agreement and related documents delivered to the Underwriters and (vii) the costs of listing the Stock on the Nasdaq National Market.

(b) The Company agrees to reimburse you for blue sky fees and related disbursements (including costs of printing memoranda for the Underwriters) paid by or for the account of the Underwriters or their counsel in qualifying the Stock under the state securities or blue sky laws and for fees and related disbursements (including legal fees not to exceed \$12,000 and disbursements of counsel) in connection with such filings as may be required by the NASD.

6. INDEMNIFICATION AND CONTRIBUTION. (a) The Company agrees to indemnify and hold harmless each Underwriter and each person (including each partner or officer thereof) who controls any Underwriter within the meaning of Section 15 of the Securities Act from and against any and all losses, claims, damages or liabilities, joint or several, to which such indemnified parties or any of them may become subject under the Securities Act, the Exchange Act, or the common law or otherwise, and the Company agrees to reimburse each such Underwriter and controlling person for any legal or other expenses (including, except as otherwise hereinafter provided, reasonable fees and disbursements of counsel) incurred by the respective indemnified parties in connection with defending against any such losses, claims, damages or liabilities or in connection with any investigation or inquiry of, or other proceedings which may be brought against, the respective indemnified parties, in each case arising out of or based upon (i) any untrue statement or alleged untrue statement made by the Company in Section 2 hereof, or (ii) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (including the Prospectus as part thereof and any document filed under the Exchange Act and incorporated by reference therein) or any post-effective amendment

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thereto, or the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any untrue statement or alleged untrue statement of a material fact contained in any Preeffective Prospectus or the Prospectus (as amended or as supplemented if the Company shall have filed with Commission any amendment thereof or supplement thereto, including any document filed under the Exchange Act and incorporated by reference therein), or the omission or alleged omission to state therein a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or (iv) any untrue statement or alleged untrue statement of a material fact contained in any blue sky application or other document executed by the Company specifically for that purpose or based upon written information furnished by the Company filed in any state or other jurisdiction in order to qualify any or all of the Stock under the securities laws thereof (any such application, document or information being hereinafter called a "Blue Sky Application"), or the omission or alleged omission to state therein a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, provided, however, that (i) the indemnity agreement of the Company contained in this Section 6(a) shall not apply to any such losses, claims, damages, liabilities or expenses if such statement or omission was made in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of any Underwriter expressly for use in any Preeffective Prospectus, the Registration Statement or the Prospectus or any such amendment or supplement thereto, or any Blue Sky Application and (ii) the indemnity agreement contained in this Section 6(a) with respect to any Preeffective Prospectus shall not inure to the benefit of any Underwriter from whom the person asserting any such losses, claims, damages, liabilities or expenses purchased the Stock which is the subject thereof (or the benefit of any person controlling such Underwriter) if at or prior to the written confirmation of the sale of such Stock a copy of the Prospectus (or the Prospectus as amended or supplemented) was not sent or delivered to such person and the untrue statement or omission of a material fact contained in such Preeffective Prospectus was corrected in the Prospectus (or the Prospectus was amended or supplemented) unless such failure is the result of noncompliance by the Company with Section 6(c) thereof.

The indemnity agreement of the Company contained in this Section 6(a) and the representations and warranties of the Company contained in Section 2 hereof shall remain operative and in full force and effect regardless of any investigation made by or on behalf of any indemnified party and shall survive the delivery of and payment for the Stock.

(b) Each Underwriter severally agrees to indemnify and hold harmless the Company, each of its officers who signs the Registration Statement on his own behalf or pursuant to a power of attorney, each of its directors, and each person (including each partner or officer thereof), if any, who controls the Company within the meaning of Section 15 of the Securities Act, from and against any and all losses, claims, damages or liabilities, joint or several, to which such indemnified parties or any of them may become subject under the Securities Act, the Exchange Act, or the common law or otherwise and to reimburse each of them for any legal or other expenses (including, except as otherwise hereinafter provided, reasonable fees and disbursements of counsel) incurred by the respective indemnified parties in connection with defending against any such losses, claims, damages or liabilities or in

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connection with any investigation or inquiry of, or other proceedings which may be brought against, the respective indemnified parties, in each case arising out of or based upon (i) any untrue statement of alleged untrue statement of a material fact contained in the Registration Statement (including the Prospectus as a part thereof), or any post-effective amendment thereto, or the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading or (ii) any untrue statement or alleged untrue statement of a material fact contained in any Preeffective Prospectus or the Prospectus (as amended or as supplemented if the Company shall have filed with the Commission any amendment thereof or supplement thereto), or the omission or alleged omission to state therein a material fact necessary in order to make the statement therein, in the light of circumstances under which they were made, not misleading, or (iii) any Blue Sky Application, or the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case only if such statement or omission was made in reliance upon and in conformity with information furnished in writing as herein stated or otherwise furnished in writing to the Company by or on behalf of such indemnifying Underwriter expressly for use in any Preeffective Prospectus, the Registration Statement, the Prospectus, or any such amendment or supplement thereto, or any Blue Sky Application.

The indemnity agreement of each Underwriter contained in this Section 6(b) shall remain operative and in full force and effect regardless of any investigation made by or on behalf of any indemnified party and shall survive the delivery of and payment for the Stock.

(c) Each party indemnified under the provisions of Section 6(a) or 6(b) agrees that, upon the service of a summons or other initial legal process upon it in any action or suit instituted against it or upon its receipt of written notification of the commencement of any investigation or inquiry of, or proceedings against, it in respect of which indemnity may be sought on account of any indemnity agreement contained in such paragraphs, it will promptly give written notice (herein called the "Notice") of which service or notification to the party or parties from whom indemnification may be sought hereunder. No indemnification provided for in such paragraphs shall be available to any party who shall fail so to give the Notice if the party to whom such Notice was not given was unaware of the action, suit, investigation, inquiry or proceedings to which the Notice would have related and was prejudiced by the failure to give the Notice, but the omission to notify such indemnifying party or parties of any such service or notification shall not relieve such indemnifying party or parties from any liability which it or they may have to the indemnified party for contribution or otherwise than on account of such indemnity agreement. Any indemnifying party shall be entitled at its own expense to participate in the defense of any action, suit or proceedings against, or investigation or inquiry of, any indemnified party. Any indemnifying party shall be entitled, if it so elects within a reasonable time after receipt of the Notice by giving written notice (herein called the "Notice of Defense") to the indemnified party, to assume (alone or in conjunction with any other indemnifying party or parties) the entire defense of such action, suit, investigation, inquiry or proceedings, in which event such defense shall be conducted, at the expense of the indemnifying party or parties, by counsel chosen by such indemnifying party or parties and reasonably satisfactory to the indemnified party or parties; provided, however, that (i) if the indemnified party or parties reasonably determine that there may be a conflict between the positions of the indemnifying

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party or parties and of the indemnified party or parties in conducting the defense of such action, suit, investigation, inquiry or proceedings or that there may be legal defenses available to such indemnified party or parties different from or in addition to those available to the indemnifying party or parties, then counsel for the indemnified party or parties shall be entitled to conduct the defense to the extent reasonably determined by such counsel to be necessary to protect the interests of the indemnified party or parties, and (ii) in any event, the indemnified party or parties shall be entitled to have counsel chosen by such indemnified party or parties participate in, but not conduct, the defense. If, within a reasonable time after receipt of the Notice, an indemnifying party gives a Notice or Defense and the counsel chosen by the indemnifying party or parties is reasonably satisfactory to the indemnified party or parties, the indemnifying party or parties will not be liable under Section 6(a) through 6(c) for any legal or other expenses subsequently incurred by the indemnified party or parties in connection with the defense of the action, suit, investigation, inquiry or proceedings, except that (A) the indemnifying party or parties shall bear the legal and other expenses incurred in connection with the conduct of the defense as referred to in clause (i) of the provision to the preceding sentence, and (B) the indemnifying party or parties shall bear such other expenses as it or they have authorized to be incurred by the indemnified party or parties. If, within a reasonable time after receipt of the Notice, no Notice of Defense has been given, the indemnifying party or parties shall be responsible for any legal or other expenses incurred by the indemnified party or parties in connection with the defense of the action, suit, investigation, inquiry or proceedings.

(d) Notwithstanding the above, in no event shall the indemnifying parties be responsible for fees and expenses of more than one counsel for all indemnified parties in connection with one action (or separate but similar or related actions) arising out of the same general allegations or circumstances.

(e) If the indemnification provided for in this Section 6 is unavailable or insufficient to hold harmless an indemnified party under Section 6(a) or 6(b) above although applicable in accordance with its terms, then each such indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in Sections 6(a) or 6(b) above (i) in such proportion as is appropriate to reflect the relative benefits received by each indemnifying party from the offering of the Stock or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of each indemnifying party in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities or actions in respect thereof, as well as any other relevant equitable considerations. The relative benefits received by the Company and the Underwriters shall be deemed to be in the same respective proportions as the total net proceeds from the offering of the Stock (before deducting expenses) received by the Company and the total underwriting discounts and commissions received by the Underwriters, as set forth in the table on the cover page of this Prospectus, bear to the aggregate public offering price of the Stock. Relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by each indemnifying party and the parties relative

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intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission.

The parties agree that it would not be just and equitable if contributions pursuant to this Section 6(e) were to be determined by pro-rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take into account the equitable considerations referred to in the first sentence of this Section 6(e). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to in the first sentence of this Section 6(e) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating, preparing to defend or defending against any action or claim which is the subject of this Section 6(e). Notwithstanding the provisions of this Section 6(e), no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Stock purchased by such Underwriter. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(g) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this Section 6(e) to contribute are several in proportion to their respective underwriting obligations and not joint.

Each party entitled to contribution agrees that upon the service of a summons or other initial legal process upon it in any action instituted against it in respect to which contribution may be sought, it shall promptly give written notice of such service to the party or parties from whom contributions may be sought, but the omission so to notify such party or parties of any such service shall not relieve the party from whom contribution may be sought of any obligation it may have hereunder or otherwise (except as specifically provided in Section 6(c) hereof).

(f) No indemnifying party will, without the prior written consent of the indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action, suit or proceedings in respect of which indemnification may be sought hereunder (whether or not such indemnifying party or any person who controls such indemnifying party within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act is a party to such claim, action, suit or proceeding) unless the indemnifying party uses its reasonable efforts to insure that such settlement, compromise or consent includes an unconditional release of such indemnified party and each such controlling person from all liability arising out of such claim, action, suit or proceedings.

7. SURVIVAL OF INDEMNITIES, REPRESENTATIONS, WARRANTIES, ETC. The respective indemnities, covenants, agreements, representations, warranties and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by them respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter, the Company or any of its officers or directors or any controlling person, and shall survive delivery of and payment for the Stock.

8. CONDITIONS OF UNDERWRITERS' OBLIGATIONS. The respective obligations of the several Underwriters hereunder shall be subject to the accuracy, at and (except as otherwise stated

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herein) as of the date hereof and at and as of each of the Closing Dates, respectively, of the representations and warranties made herein by the Company, to compliance at and as of each of the Closing Dates, respectively, by the Company with its covenants and agreements herein contained and other provisions hereof to be satisfied at or prior to each of the Closing Dates, and to the following additional conditions:

(a) The Registration Statement shall have become effective under the Securities Act and no stop order suspending the effectiveness thereof shall have been issued and no proceedings for that purpose shall have been initiated or, to the knowledge of the Company or the Representatives, shall be threatened by the Commission, and any request for additional information on the part of the Commission (to be included in the Registration Statement or the Prospectus or otherwise) shall have been complied with to the reasonable satisfaction of the Representatives. If the filing of the Prospectus, or any supplement thereto, is required pursuant to Rule 424(b) or Rule 434 of the Rules and Regulations, such filing shall have been made in the manner and within the time period required by Rule 424(b) and Rule 434 of the Rules and Regulations, as the case may be.

(b) The Representatives shall have been satisfied that there shall not have occurred any change, on a consolidated basis, prior to each of the Closing Dates in the condition (financial or otherwise), properties, business, management, prospects, net worth or results of operations of the Company and its subsidiaries considered as a whole, or any change in the capital stock, short-term or long-term debt of the Company and its subsidiaries considered as a whole, such that (i) the Registration Statement or the Prospectus, or any amendment or supplement thereto, contains an untrue statement of fact which, in the opinion of the Representatives, is material, or omits to state a fact which, in the opinion of the Representatives, is required to be stated therein or is necessary to make the statements therein not misleading, or (ii) it is unpracticable in the reasonable judgment of the Representatives to proceed with the public offering or purchase the Stock as contemplated hereby.

(c) The Representatives shall be satisfied that no legal or governmental action, suit or proceeding affecting the Company which is material and adverse to the Company or which affects or may affect the Company's ability to perform its obligations under this Agreement shall have been instituted or threatened and there shall have occurred no material adverse development in any existing such action, suit or proceeding.

(d) At the time of execution of this Agreement, the Representatives shall have received from Coopers & Lybrand L.L.P., independent certified public accountants, a letter, dated the date hereof, in form and substance satisfactory to the Underwriters.

(e) The Representatives shall have received from Coopers & Lybrand L.L.P., independent certified public accountants, letters, dated as of each of the Closing Dates, respectively, to the effect that such accountants reaffirm, as of each such Closing Date, and as though made on such Closing Date, the statements made in the letter furnished by such accountants pursuant to paragraph (d) of this Section 8.

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(f) The Representatives shall have received from Warner & Stackpole LLP, counsel for the Company, opinions, dated as of each of the Closing Dates, respectively, to the effect set forth in EXHIBIT I hereto.

(g) The Representatives shall have received from Fish & Neave, patent counsel for the Company, opinions, dated as of each of the Closing Dates, respectively, to the effect set forth in EXHIBIT II hereto.

(h) The Representatives shall have received from Testa, Hurwitz & Thibeault, LLP, counsel for the Underwriters, their opinion or opinions dated, respectively, the Closing Dates with respect to the incorporation of the Company, the validity of the Stock, the Registration Statement and the Prospectus and such other related matters as it may reasonably request, and the Company shall have furnished to such counsel such documents as they may request for the purpose of enabling them to pass upon such matters.

(i) The Representatives shall have received certificates, dated as of each of the Closing Dates, respectively, of the chief executive officer or the President and the chief financial or accounting officer of the Company to the effect that:

> (i) No stop order suspending the effectiveness of the Registration Statement has been issued, and, to the best of the knowledge of the signers, no proceedings for that purpose have been instituted or are pending or contemplated under the Securities Act;

(ii) Neither any Preeffective Prospectus, as of its date, nor the Registration Statement nor the Prospectus, nor any amendment or supplement thereto, as of the time when the Registration Statement became effective and at all times subsequent thereto up to the delivery of such certificate, included any untrue statement of a material fact or omitted to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading;

(iii) Subsequent to the respective dates as of which information is given in the Registration Statement and the Prospectus, and except as set forth or contemplated in the Prospectus, neither the Company nor any of its subsidiaries has incurred any material liabilities or obligations, direct or contingent, nor entered into any material transactions, in each case not in the ordinary course of business, or any change in the capital stock (except pursuant to its stock option plans), short-term or long-term debt of the Company and its subsidiaries considered as a whole;

 $({\rm iv})$ The representations and warranties of the Company in this Agreement are true and correct at and as of each of the Closing Dates, respectively, and the Company has complied with all the agreements and

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performed or satisfied all the conditions on its part to be performed or satisfied at or prior to each such Closing Date; and

(v) Since the respective dates as of which information is given in the Registration Statement and the Prospectus, and except as disclosed in or contemplated by the Prospectus, (i) there has not been any material adverse change or a development involving a material adverse change in the condition (financial or otherwise), properties, business, management, prospects, net worth or results of operations of the Company and its subsidiaries considered as a whole; (ii) the business and operations conducted by the Company and its subsidiaries have not sustained a loss by strike, fire, flood, accident or other calamity (whether or not insured) of such a character as to interfere materially with the conduct of the business and operations of the Company and its subsidiaries considered as a whole; (iii) no legal or governmental action, suit or proceeding is pending or threatened against the Company which is material to the Company, whether or not arising from transactions in the ordinary course of business, or which may materially and adversely affect the transactions contemplated by this Agreement; (iv) since such dates and except as so disclosed, the Company has not incurred any material liability or obligation, direct, contingent or indirect, made any change in its capital stock (except pursuant to its stock plans), made any material change in its short-term or funded debt or repurchased or otherwise acquired any of the Company's capital stock; and (v) the Company has not declared or paid any dividend, or made any other distribution, upon its outstanding capital stock payable to stockholders of record on a date prior to such Closing Date.

(j) The Company shall have furnished to the Representatives such additional certificates as the Representatives may have reasonably requested as to the accuracy, at and as of each of the Closing Dates, of the representations and warranties made herein by it and as to compliance at and as of each of the Closing Dates by it with its covenants and agreements herein contained and other provisions hereof to be satisfied at or prior to such Closing Dates, and as to satisfaction of the other conditions to the obligations of the Underwriters hereunder.

(k) Cowen shall have received the written agreements of the officers, directors and certain holders of Common Stock that, without the prior consent of Cowen, each will not offer, sell, assign, transfer, encumber, contract to sell, grant an option to purchase or otherwise dispose of, other than by operation of law, gifts, pledges or dispositions by estate representatives, any shares of Common Stock (including, without limitation, (i) any securities convertible into shares of Common Stock and (ii) any Common Stock of the Company which may be deemed to be beneficially owned by the undersigned in accordance with the Rules and Regulations) during the 90 days following the effective date of the Registration Statement.

All opinions, certificates, letters and other documents will be in compliance with the provisions hereunder only if they are satisfactory in form and substance to the Representatives. The Company will furnish to the Representatives conformed copies of such opinions, certificates, letters and other documents as the Representatives shall reasonably request. If any of the

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conditions hereinabove provided for in this Section shall not have been satisfied when and as required by this Agreement, this Agreement may be terminated by the Representatives by notifying the Company of such termination in writing or by telegram at or prior to the Closing Dates, but Cowen shall be entitled to waive any of such conditions.

9. EFFECTIVE DATE. This Agreement shall become effective immediately as to Sections 5, 6, 7, 9, 10, 11, 13, 14, 15, 16 and 17 and, as to all other provisions, at 11:00 a.m. Boston time on the first full business day following the effectiveness of the Registration Statement or at such earlier time after the Registration Statement becomes effective as the Representatives may determine on and by notice to the Company or by release of any of the Stock for sale to the public. For the purposes of this Section 9, the Stock shall be deemed to have been so released upon the release for publication of any newspaper advertisement relating to the Stock or upon the release by the Representatives of telegrams (i) advising Underwriters that the shares of Stock are released for public offering or (ii) offering the Stock for sale to securities dealers, whichever may occur first.

10. TERMINATION. This Agreement (except for the provisions of Section 5) may be terminated by the Company at any time before it becomes effective in accordance with Section 9 by notice to the Representatives and may be terminated by the Representatives at any time before it becomes effective in accordance with Section 9 by notice to the Company. In the event of any termination of this Agreement under this or any other provision of this Agreement, there shall be no liability of any party to this Agreement to any other party, other than as provided in Sections 5, 6 and 11 and other than as provided in Section 12 as to the liability of defaulting Underwriters.

This Agreement may be terminated after it becomes effective by the Representatives by notice to the Company (i) if at or prior to each of the Closing Dates trading in securities on the Nasdaq National Market System shall have been suspended or minimum or maximum prices shall have been established on any such exchange or market, or a banking moratorium shall have been declared by New York or United States authorities; (ii) if trading of any securities of the Company shall have been suspended on any exchange or in any over-the-counter market; (iii) if at or prior to each of the Closing Dates there shall have been (A) an outbreak or escalation of hostilities between the United States and any foreign power or of any other insurrection or armed conflict involving the United States or (B) any change in financial markets or any calamity or crisis which, in the judgment of the Representatives, makes it impractical or inadvisable to offer or sell the Firm Stock or Optional Stock, as applicable, on the terms contemplated by the Prospectus; (iv) if there shall have been any development or prospective development involving particularly the business or properties or securities of the Company or any of its subsidiaries or the transactions contemplated by this Agreement, which, in the judgment of the Representatives, makes it impracticable or inadvisable to offer or deliver the Firm Stock or the Optional Stock, as applicable, on the terms contemplated by the Prospectus; (v) if there shall be any litigation or proceeding, pending or threatened, which, in the judgment of the Representatives, makes it impracticable or inadvisable to offer or deliver the Firm Stock or Optional Stock, as applicable, on the terms contemplated by the Prospectus; or (vi) if there shall have occurred any of the events specified in the immediately preceding clauses (i) - (v) together with any other such event that makes it, in the judgment of the Representatives, impractical or inadvisable to offer or

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deliver the Firm Stock or Optional Stock, as applicable, on the terms contemplated by the Prospectus.

11. REIMBURSEMENT OF UNDERWRITERS. Notwithstanding any other provisions hereof, if this Agreement shall not become effective by reason of any election of the Company pursuant to the first paragraph of Section 10 or shall be terminated by the Representatives under Section 8 or Section 10, the Company will bear and pay the expenses specified in Section 5 hereof and, in addition to its obligations pursuant to Section 6 hereof, the Company will reimburse the reasonable out-of-pocket expenses of the several Underwriters (including reasonable fees and disbursements of counsel for the Underwriters) incurred in connection with this Agreement and the proposed purchase of the Stock, and promptly upon demand, the Company will pay such amounts to the Representatives.

12. SUBSTITUTION OF UNDERWRITERS. If any Underwriter or Underwriters shall default in its or their obligations to purchase shares of Stock hereunder and the aggregate number of shares which such defaulting Underwriter or Underwriters agreed but failed to purchase does not exceed ten percent (10%) of the total number of shares underwriten, the other Underwriters shall be obligated severally, in proportion to their respective commitments hereunder, to purchase the shares which such defaulting Underwriter or Underwriters agreed but failed to purchase. If any Underwriter or Underwriters shall so default and the aggregate number of shares with respect to which such default or defaults occur is more than ten percent (10%) of the total number of shares underwriten and arrangements satisfactory to the Representatives and the Company for the purchase of such shares by other persons are not made within forty-eight (48) hours after such default, this Agreement shall terminate.

If the remaining Underwriters or substituted Underwriters are required hereby or agree to take up all or part of the shares of Stock of a defaulting Underwriter or Underwriters as provided in this Section 12, (i) the Company shall have the right to postpone the Closing Date[s] for a period of not more than five (5) full business days in order that the Company may effect whatever changes may thereby be made necessary in the Registration Statement or the Prospectus, or in any other documents or arrangements, and the Company agrees promptly to file any amendments to the Registration Statement or supplements to the Prospectus which may thereby be made necessary, and (ii) the respective numbers of shares to be purchased by the remaining Underwriters or substituted Underwriters shall be taken as the basis of their underwriting obligation for all purposes of this Agreement. Nothing herein contained shall relieve any defaulting Underwriter of its liability to the Company or the other Underwriters for damages occasioned by its default hereunder. Any termination of this Agreement pursuant to this Section 12 shall be without liability on the part of any non-defaulting Underwriter or the Company, except for expenses to be paid or reimbursed pursuant to Section 5 and except for the provisions of Section 6.

13. NOTICES. All communications hereunder shall be in writing and, if sent to the Underwriters shall be mailed, delivered or telegraphed and confirmed to you, as their Representatives, c/o Cowen & Company at Financial Square, New York, New York 10005 except that notices given to an Underwriter pursuant to Section 6 hereof shall be sent to such

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Underwriter at the address furnished by the Representatives or, if sent to the Company, shall be mailed, delivered or telegraphed and confirmed c/o President, Vertex Pharmaceuticals Incorporated, 130 Waverly Street, Cambridge, MA 02139.

14. SUCCESSORS. This Agreement shall inure to the benefit of and be binding upon the several Underwriters, the Company and their respective successors and legal representatives. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person other than the persons mentioned in the preceding sentence and the persons entitled to the benefits of the provisions of Section 6 any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions herein contained, this Agreement and all conditions and provisions hereof being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person.

15. APPLICABLE LAW. This Agreement shall be governed by and construed in accordance with the laws of the State of New York.

16. AUTHORITY OF THE REPRESENTATIVES. In connection with this Agreement, you will act for and on behalf of the several Underwriters, and any action taken under this Agreement by Cowen, as Representative, will be binding on all the Underwriters.

17. PARTIAL UNENFORCEABILITY. The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

18. GENERAL. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof.

In this Agreement, the masculine, feminine and neuter genders and the singular and the plural include one another. The section headings in this Agreement are for the convenience of the parties only and will not affect the construction or interpretation of this Agreement. This Agreement may be amended or modified, and the observance of any term of this Agreement may be waived, only by a writing signed by the Company and the Representatives.

19. COUNTERPARTS. This Agreement may be signed in two (2) or more counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

If the foregoing correctly sets forth our understanding, please indicate your acceptance thereof in the space provided below for that purpose, whereupon this letter and your acceptance shall constitute a binding agreement between us.

Very truly yours,

VERTEX PHARMACEUTICALS INCORPORATED

By:

President

Accepted and delivered as of the date first above written.

COWEN & COMPANY BEAR, STEARNS & CO. INC. ROBERTSON, STEPHENS & COMPANY LLC J.P. MORGAN SECURITIES INC. Acting on their own behalf and as Representatives of several Underwriters referred to in the foregoing Agreement.

By: COWEN & COMPANY

By: Cowen Incorporated its general partner

By:

Title:

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NAME

NUMBER OF FIRM SHARES TO BE PURCHASED

Cowen & Company
Bear, Stearns & Co. Inc
Robertson, Stephens & Company LLC J.P. Morgan Securities Inc.
T0TAL

2,500,000 ======

EXHIBIT I

The opinion of Warner & Stackpole LLP, counsel for the Company, shall be as follows:

(i) Each of the Company and its Subsidiaries has been duly organized and is validly existing as a corporation in good standing under the laws of the jurisdiction of its organization, with full corporate power and authority to own or lease its properties and conduct its business as described in the Prospectus, and is fully qualified to do business and is in good standing in each jurisdiction in which the character of the business conducted by it or the location of the properties owned or leased by it makes such qualification necessary, except where the failure to be so qualified would not have a material adverse effect upon the Company and its Subsidiaries, taken as a whole.

(ii) The authorized Common Stock of Company as of December 31, 1996 is as set forth under the caption "Capitalization" in the Prospectus, and the Common Stock conforms to the description set forth under the caption "Description of Stock conforms to the description set forth under the caption ' Capital Stock" in the Prospectus. Since December 31, 1996, to such counsel's knowledge, the Company has not issued or committed to issue any shares of Common Stock or other securities of the Company other than as reflected in the Registration Statement and Prospectus, or with respect to the issuance of Common Stock in connection with the outstanding options and warrants as described in the Registration Statement and Prospectus. The outstanding shares of Common Stock have been, and the Stock, upon issuance and delivery and payment therefor in the manner herein described, will be, duly authorized, validly issued, fully paid and nonassessable. The certificates for the Stock as delivered to the . Underwriters are in due and proper form. There are no preemptive or other rights to subscribe for or to purchase, or any restriction upon the voting or transfer of, any shares of Common Stock pursuant to the Company's Restated Articles of Organization or by-laws or under any agreement or other instrument known to such counsel to which the Company or any of its Subsidiaries is a party or by which it is bound; and to such counsel's knowledge, there are no contractual preemptive rights or rights of first refusal or other similar rights which exist with respect to any of the Stock or the issue and sale thereof, other than as set forth in the Registration Statement or the Prospectus. To such counsel's knowledge, no holder of shares of Common Stock or other securities of the Company has the right (other than a right which has been waived) to have any securities owned by such holder included in the Registration Statement. To such counsel's knowledge, all of the outstanding shares of the capital stock of each Subsidiary of the Company, except for Altus and Versal, are owned directly or indirectly by the Company, free and clear of any claim, lien, encumbrance or security interest.

(iii) The execution or delivery hereof or consummation of the transaction contemplated hereby will not result in a violation of, or constitute a default under, the Restated Articles of Organization or by-laws of the Company or any of its Subsidiaries, or, in any manner which would have a material adverse effect on the Company and its Subsidiaries taken as a whole, would result in a violation or default, or with the giving of notice or lapse of time or both, would result in such violation or default, under any agreement, lease, contract, indenture or other instrument known to such counsel to which the Company or any of its Subsidiaries is a party or

I-

by which any of them is bound, or to which any of their properties are subject, or any franchise, license, authorization, approval, permit, judgment, decree, order, statute, rule or regulation known to such counsel to which the Company or any of its Subsidiaries may be subject (other than the Federal Securities laws or securities or "Blue Sky" laws of certain jurisdictions, as to which no opinion need be expressed in this paragraph). The performance by the Company of its obligations hereunder will not violate any law, rule, administrative regulation, or, to such counsel's knowledge, any decree or order of any court or any governmental agency or body having jurisdiction over the Company, its Subsidiaries or their properties, or, in a manner which would have a material adverse effect on the Company and its Subsidiaries taken as a whole, result in the creation or imposition of any lien, charge, claim or encumbrance upon any property or asset of the Company or any of its Subsidiaries. Except for permits and similar authorizations required under the Securities Act, the Exchange Act and the securities or "Blue Sky" laws of certain jurisdictions and for such permits and authorizations which have been obtained, no consent, approval, authorization or order of any court, governmental agency or body or financial institution is required by law, or to such counsel's knowledge by any decree or order of any court, government agency or body in connection with the execution and delivery of this Agreement by the Company and consummation of the transactions contemplated by this Agreement nor, to such counsel's knowledge, is any such consent, approval, authorization or order required of any financial institution in connection with the execution and delivery of this Agreement by the Company and the consummation of the transactions contemplated by this Agreement.

(iv) This Agreement has been duly authorized by all necessary corporate action on the part of the Company, and has been duly executed and delivered by the Company.

(v) The Registration Statement and all post-effective amendments thereto have become effective under the Securities Act and, to the best of such counsel's knowledge, no stop order suspending the effectiveness of the Registration Statement has been issued and no proceedings for that purpose have been instituted or are pending before or contemplated by the Commission and any and all filings required by Rule 424 and Rule 430A of the Commission have been made; the Registration Statement, the Preeffective Prospectus and the Prospectus and any amendment or supplement thereto, as of their respective dates, comply as to form in all material respects with the requirements of the Securities Act and the Rules and Regulations (except that counsel need express no opinion on the financial statements and schedules and the other financial data included therein). In addition, such counsel shall state that, although they have not verified the accuracy or completeness of the statements contained in the Registration Statement or any amendment thereto, nothing has come to the attention of such counsel which causes them to believe that the Registration Statement or any amendment thereto at the time it became effective (except that counsel need express no opinion on the financial statements and schedules and the other financial data included therein) contained any untrue statement of a material fact or omitted to state any material fact required to be stated therein or necessary to make the statements therein not misleading and that, on the First Closing Date or Option Closing Date, the Preeffective Prospectus and the Prospectus or any amendment or supplement thereto (except that counsel need express no opinion on the financial statements and schedules and the other financial data included therein), contains any untrue statement of a material fact or omits to state a material fact

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necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

(vi) All descriptions in the Preeffective Prospectus and the Prospectus of statutes, regulations, legal or governmental proceedings, contracts and other documents are accurate and fairly represent the information required to be shown; and such counsel does not know of any contracts or documents of a character required to be summarized or described therein or to be filed as exhibits thereto which are not so summarized, described or filed, nor does such counsel know of any pending or threatened litigation or any governmental proceeding, statute or regulation required to be described in the Preeffective Prospectus and the Prospectus which is not so described.

(vii) All documents incorporated by reference in the Preeffective Prospectus and the Prospectus, when they were filed with the Commission, complied as to form in all material respects with the requirements of the Exchange Act; and such counsel has no reason to believe that any such documents, when they were so filed, contained an untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such documents were so filed, not misleading; such counsel need express no opinion as to the financial statements and schedules and other financial data contained in any such document.

In rendering such opinion, such counsel may state that insofar as their opinion under clause (v) above relates to the accuracy and completeness of the Registration Statement, the Preeffective Prospectus and the Prospectus, it is based upon participation in conferences with representatives of the Underwriters, and with officers and other representatives of the Company and its independent public accountants, at which the contents of the Registration Statement, the Preeffective Prospectus and the Prospectus were discussed, without independent verification by such counsel of the accuracy or completeness of such information. Such counsel may also rely upon the opinions of other competent counsel and, as to factual matters, on certificates of officers of the company and of state officials, in which case their opinion is to state that they are so doing and copies of said opinions or certificates are to be attached to the opinion unless said opinions or certificates (or, in the case of certificates, the information therein) have been furnished to the Representatives in other form.

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Exhibit II

Form of Opinion -Subject to Change

_____, 1997

Cowen & Company Bear Stearns & Co., Inc. Robertson, Stephens & Company LLC J.P. Morgan Securities Inc. c/o Cowen & Company As Representatives of the Several Underwriters One Financial Square New York, New York 10005

Vertex Pharmaceuticals Incorporated

Dear Ladies and Gentlemen:

We are patent counsel to Vertex Pharmaceuticals Incorporated, a Massachusetts corporation (the "Company"). As patent counsel to the Company, we are familiar with those patent and intellectual property matters referred to us by the Company ("our Representation").

This opinion is being furnished to you pursuant to Section 8(g) of the Underwriting Agreement dated _______. 1997 (the "Agreement") between you and the Company, relating to the sale to you, severally, of certain shares of Common Stock of the Company.

In our capacity as the Company's patent counsel, we have reviewed the following statements under the captions "Risk Factors - Uncertainty to Patents and Proprietary Information," "Business - Clinical Programs" and "Business - Patents and Proprietary Information" in a copy of the Prospectus forming a part of the Registration Statement on Form S-3 (Registration No. 333___) as filed by the Company under the Securities Act of 1933, on ____:

Risk Factors

- Uncertainty Related to Patents and Proprietary Information

Business

- Clinical Programs

HIV Program

Cancer Multidrug Resistance Program

Hemoglobin Disorders Program

Inflammation Program

IMPDH Program

Neurophilins Program

Hepatitis C Program

Business - Patents and Proprietary Information

("the Statements").

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We have not independently verified the accuracy or completeness of the factual matters contained in these Statements; subject thereto, insofar as these Statements constitute facts pertaining to our Representation and involve matters of United States law, they are, to our actual knowledge, accurate statements or summaries of the matters therein set forth. As to questions of material fact relevant thereto, we have in part relied upon representations made to us by officers of the Company.

Specifically, we believe as to certain aspects of the Statements that:

(i) Subject to any disclosure to the contrary in the Prospectus, to our actual knowledge, there are no legal or governmental proceedings, except patent prosecution, pending or threatened relating to the patents or patent applications of the Company referenced in the Statements and related to our Representation;

(ii) Subject to any disclosure to the contrary in the Prospectus, to our actual knowledge, there are no facts that would preclude the Company from having clear title to or a valid license under the patents and patent applications referenced in the Statements and related to our Representation;

(iii) To our actual knowledge, we and the Company have complied and are continuing to comply on an ongoing basis, with the required duty of candor and good faith in dealing with the United States Patent and Trademark Office (the "Office"), including the duty to disclose to the Office all information actually known by us to be material to the patentability of each issued United States patent or pending application referred in the Statements and related to our Representation.

Further, we have no actual knowledge that causes us to believe, as of the date of this letter, that the description in the Statements of the Company's situation relating to patents and patent applications pertaining to our Representation, contain any untrue statement of a material fact or omit to state a material fact necessary to make such Statements not misleading in the context in which they are made.

As we have discussed, pursuant to our firm's policy any communication from us, including this letter, is solely for your information, and to assist you as the underwriters in conducting your investigation of the affairs of the Company in connection with the aforesaid Registration Statement and it is not to be quoted or otherwise referred to in any public disclosure document (including without limitation the Registration Statement), furnished to any other person, or filed with any governmental agency. Moreover, this letter speaks as of the date hereof and we assume no obligation to advise you of any changes of law or fact that may thereafter occur.

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Very truly yours,

FISH & NEAVE

James F. Haley, Jr. Andrew S. Marks

JFH/ASM:mem

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AMENDMENT, dated as of February 21, 1997, to the Rights Agreement, dated as of July 1, 1991 (the "Rights Agreement"), between Vertex Pharmaceuticals Incorporated, a Massachusetts corporation (the "Company"), and The First National Bank of Boston, as Rights Agent (the "Rights Agent").

The Company and the Rights Agent have heretofore executed and entered into the Rights Agreement. Pursuant to Section 27 of the Rights Agreement, the Company and the Rights Agent may from time to time supplement or amend the Rights Agreement in accordance with the provisions of Section 27 thereof. All acts and things necessary to make this Amendment a valid agreement, enforceable according to its terms, have been done and performed, and the execution and delivery of this Amendment by the Company and the Rights Agent have been in all respects duly authorized by the Company and the Rights Agent.

In consideration of the foregoing and the mutual agreements set forth herein, the parties hereto agree as follows:

1. Section 1(a) of the Rights Agreement is hereby amended in its entirety to read as follows:

(a) "Acquiring Person" shall mean any Person (as hereinafter defined) who or which, together with all Affiliates and Associates (as such terms are hereinafter defined) of such Person, shall be the Beneficial Owner (as hereinafter defined) of 15% or more of the Common Shares of the Company then outstanding, but shall not include the Company, any Subsidiary (as hereinafter defined) of the Company, any employee benefit plan of the Company or any Subsidiary of the Company, any entity holding Common Shares for or pursuant to the terms of any such plan, or any Person who, alone or together, with all Affiliates and Associates of such Person, is, as of the date of this Agreement, the Beneficial Owner of 15% or more of the Common Shares of the Company then outstanding. Notwithstanding the foregoing, no Person shall become an "Acquiring Person" as a result of an acquisition of Common Shares by the Company which, by reducing the number of shares outstanding, increases the proportionate number of shares beneficially owned by such Person to 15% or more of the Common Shares of the Company then outstanding; PROVIDED, HOWEVER, that if a Person shall become the Beneficial Owner of 15% or more of the Common Shares of the Company then outstanding by reason of share purchases by the Company and shall, after such share purchases by the Company, become the Beneficial Owner of any additional Common Shares of the Company, then such Person shall be deemed to be an "Acquiring Person".

2. Section 3(a) of the Rights Agreement is hereby amended in its entirety to read as follows:

(a) Until the earlier of (i) the tenth day after the Shares Acquisition Date or (ii) the tenth business day (or such later date as may be determined by action of the Board of Directors prior to such time as any Person becomes an Acquiring Person) after the date of the commencement by any Person (other than the Company, any Subsidiary of the Company, any employee benefit plan of the Company or of any Subsidiary of the Company or any entity holding Common Shares for or pursuant to the terms of any such plan) of, or of the first public announcement of the intention of any Person (other than the Company, any Subsidiary of the Company, any employee benefit plan of the Company or of any Subsidiary of the Company or any entity holding Common Shares for or pursuant to the terms of any such plan) to commence, a tender or exchange offer the consummation of which would result in any Person becoming the Beneficial Owner of Common Shares aggregating 15% or more of the then outstanding Common Shares (including any such date which is after the date of this Agreement and prior to the issuance of the Rights; the earlier of such dates being herein referred to as the "Distribution Date"), (x) the Rights will be evidenced (subject to the provisions of Section 3(b) hereof) by the certificates for Common Shares registered in the names of the holders thereof (which certificates shall also be deemed to be Right Certificates) and not by separate Right Certificates, and (y) the right to receive Right Certificates will be transferable only in connection with the transfer of Common Shares. As soon as practicable after the Distribution Date, the Company will prepare and execute, the Rights Agent will countersign, and the Company will send or cause to be sent (and the Rights Agent will, if requested, send) by first-class, insured, postage-prepaid mail, to each record holder of Common Shares as of the close of business on the Distribution Date, at the address of such holder shown on the records of the Company, a Right Certificate, in substantially the form of Exhibit B hereto (a "Right Certificate"), evidencing one Right for each Common Share so held. As of the Distribution Date, the Rights will be evidenced solely by such Right Certificates.

3. Section 7(b) of the Rights Agreement is hereby modified and amended by deleting the amount 60 and substituting 270 therefore. There shall be no adjustment to the Purchase Price as set forth in Section 7(b), as modified and amended hereby, pursuant to Section 11(a)(i) with respect to any event described in Section 11(a)(i) which occurred prior to the date of this Amendment.

4. If any term, provision, covenant or restriction of this Amendment is held by a court of competent jurisdiction or other authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Amendment, and the Rights Agreement, shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

5. This Amendment shall be deemed to be a contract made under the laws of the Commonwealth of Massachusetts and for all purposes shall be governed by and construed in accordance with the laws of such Commonwealth applicable to contracts to be made and performed entirely within such Commonwealth.

6. This Amendment may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

7. In all respects not inconsistent with the terms and provisions of this Amendment to the Rights Agreement, the Rights Agreement is hereby ratified, adopted, approved and confirmed. In executing and delivering this Amendment, the Rights Agent shall be entitled to all the privileges and immunities afforded to the Rights Agent under the terms and conditions of the Rights Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and attested, all as of the date and year first above written.

Attest:

VERTEX PHARMACEUTICALS INCORPORATED

By:_____ Name: Title: By:_____ Name: Title:

Attest:

THE FIRST NATIONAL BANK OF BOSTON

By:___

Name: Title: By:_____ Name:

Title:

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EXHIBIT 5

February 25, 1997

Vertex Pharmaceuticals Incorporated 130 Waverly Street Cambridge, Massachusetts 02139-4211

Ladies and Gentlemen:

We have acted as your counsel in connection with the preparation and filing with the Securities and Exchange Commission of a Registration Statement on Form S-3 (the "Registration Statement") with respect to the public offering by Vertex Pharmaceuticals Incorporated, a Massachusetts corporation (the "Company"), of up to 2,875,000 shares (the "Shares") of the Common Stock, \$.01 par value per share, of the Company and the proposed issuance by the Company in connection therewith of rights to purchase Series A Junior Participating Preferred Stock, \$.01 par value per share (the "Rights").

We have examined (i) the Registration Statement, (ii) the form of Underwriting Agreement between the Company and Cowen & Company, Bear, Stearns & Co. Inc., Robertson, Stephens & Company LLC and J.P. Morgan Securities Inc. as Representatives of the several underwriters named in Schedule A thereto (the "Underwriting Agreement"), (iii) the Restated Articles of Organization of the Company, as amended to date, (iv) the Rights Agreement (the "Rights Plan"), dated July 1, 1991, between the Company and The First National Bank of Boston, as amended by a form of amendment approved by the Board of Directors of the Company on February 18, 1997 but not yet executed by The First National Bank of Boston, under which the Rights are proposed to be issued, and such other documents and records as we have deemed necessary for the purposes of this opinion.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies, and the authenticity of the originals of such latter documents.

We assume that appropriate action will be taken, prior to the offer and sale of the Shares, to register and qualify the Shares and the Rights for sale under all applicable state securities or "blue sky" laws.

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Vertex Pharmaceuticals Incorporated February 25, 1997 Page 2

We are members of the bar of the Commonwealth of Massachusetts and we express no opinion as to any matters insofar as any laws other than Federal laws and the laws of the Commonwealth of Massachusetts may be applicable.

Based upon the foregoing, we are of the opinion that the Shares and the Rights are duly authorized for issuance and, upon (i) the effectiveness of the Registration Statement, (ii) the execution and delivery of the Underwriting Agreement by the parties thereto, (iii) payment for the Shares in accordance with the terms of the Underwriting Agreement, (iv) the issuance of the certificates therefor by the Company, and (v) as to the Rights only, the issuance of the Rights in accordance with the terms of the Rights Plan, the Shares and the Rights will be validly issued, fully paid and non-assessable.

In connection with our opinion set forth above with respect to the Rights, whether the Board of Directors of the Company might be required to redeem or terminate the Rights at some future time will depend upon the facts and circumstances existing at that time and, accordingly, is beyond the scope of our opinion.

We hereby consent to the reference to this firm under the heading "Legal Opinions" in the prospectus which is part of the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement.

Very truly yours,

/s/ Warner & Stackpole LLP

WARNER & STACKPOLE LLP

CONSENT OF INDEPENDENT ACCOUNTANTS

We consent to the incorporation by reference in this registration statement on Form S-3 of our report, dated February 18, 1997, on our audits of the consolidated financial statements of Vertex Pharmaceuticals Incorporated. We also consent to the references to our firm under the captions "Experts" and "Selected Consolidated Financial Data."

> /s/ COOPERS & LYBRAND L.L.P. COOPERS & LYBRAND L.L.P.

Boston, Massachusetts February 25, 1997