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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

**FORM 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the Fiscal Year Ended December 31, 2002**

or

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from to**

Commission file number 000-19319

**Vertex Pharmaceuticals Incorporated**

(Exact name of registrant as specified in its charter)

**Massachusetts**  
(State of incorporation)

**130 Waverly Street**  
**Cambridge, Massachusetts**  
(Address of principal executive offices)

**04-3039129**  
(I.R.S. Employer  
Identification No.)  
**02139-4242**  
(Zip Code)

**(617)444-6100**

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Exchange Act: None

Securities registered pursuant to Section 12(g) of the Exchange Act:

**Common Stock, \$0.01 Par Value Per Share**  
(Title of class)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes  No

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate) based on the last reported sale price of the Common Stock on The Nasdaq Stock Market on June 28, 2002, was \$893,950,000.

As of March 26, 2003, the registrant had 76,502,161 shares of common stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the definitive Proxy Statement for the 2003 Annual Meeting of Stockholders to be held on May21, 2003 are incorporated by reference into PartIII.

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The "Company," "Vertex," "we" and "us," as used in this Annual Report on Form10-K, refer to Vertex Pharmaceuticals Incorporated, a Massachusetts corporation, and its subsidiaries.

"Vertex" and "NanoWell" are registered trademarks of Vertex, and "E-VIPR", "Flying Reagent Dispenser" or "FRD", "GenomeScreen," "Screening Island" and "Topology-Compensating Plate Reader" or "tcPR" are trademarks of Vertex. "Agenerase" is a registered trademark of GlaxoSmithKline. "Prozei" is a trademark of Kissei Pharmaceutical Co.,Ltd. "GeneBLAzer", "Vivid" and "PhosphoryLIGHT" are trademarks assigned by Vertex to Invitrogen Corporation. Other brands, names and trademarks contained in this Annual Report are the property of their respective owners.

### **Forward-Looking Statements**

Our disclosure in this Annual Report on Form10-K contains some forward-looking statements. Forward-looking statements give our current expectations or forecasts of future events. You can identify these statements by the fact that they do not relate strictly to historical or current facts. Such statements may include words such as "anticipate," "estimate," "expect," "project," "intend," "plan," "believe" and other words and terms of similar meaning in connection with any discussion of future operating or financial performance. In particular, these statements include, among other things, statements relating to:

- our business strategy;
- our predicted development and commercial timelines;
-

the selection, development and approval of our products;

- the establishment, development and maintenance of collaborative partnerships;

- our ability to identify new potential products;
- our ability to achieve commercial acceptance of our products;
- our ability to scale up our manufacturing capabilities and facilities;
- the potential for the acquisition of new and complementary technologies, resources and products;
- our projected capital expenditures; and
- our liquidity.

Any or all of our forward-looking statements in this Annual Report may turn out to be wrong. They can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in our discussion in this Annual Report will be important in determining future results. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially. A more detailed reference to our forward-looking statements can be found under "Forward-looking Statements" in Item 7 of this Annual Report.

We also provide a cautionary discussion of risks and uncertainties under "Risk Factors" in Item 1 of this Annual Report. These are factors that we think could cause our actual results to differ materially from expected results. Other factors besides those listed there could also adversely affect us.

## PART I

### ITEM 1. BUSINESS

We are a biotechnology company that seeks to discover, develop and commercialize novel small molecule drugs that address significant markets with major unmet medical needs, including the treatment of viral diseases, cancer, autoimmune and inflammatory diseases, neurological disorders and genetic diseases. Our research platform integrates advanced biology, chemistry, biophysics, automation and information technologies to make the drug discovery process more efficient and productive. To date, we have discovered and advanced one product that has reached the market, the HIV protease inhibitor Agenerase (amprenavir). We have one product, 908 (GW433908 or VX-175), for which a New Drug Application (NDA) is pending with the U.S. FDA, and we have a total of 15 drug candidates in clinical or preclinical development. Vertex is currently developing approximately half of these drug candidates independently and half with pharmaceutical partners.

We intend to concentrate our independent development and commercialization efforts on certain products for high-value markets where Vertex can effectively reach large patient populations with a sales force focused on specialists. At the same time, we are collaborating with partners to develop and market other Vertex-discovered products for selected major therapeutic areas. We believe this two-pronged approach will provide us with the opportunity to build long-term value for Vertex shareholders and create the greatest number of product development opportunities for Vertex. In 2003, we are focusing internal development efforts on five major programs for which we presently retain most or all of the downstream commercial rights. These development programs are: VX-148, our second generation IMPDH inhibitor for the treatment of psoriasis; VX-702, our second generation p38 MAP kinase inhibitor for the treatment of acute and chronic inflammatory diseases; VX-563, a small molecule modulator of gene expression with potential application in genetic disorders; VX-765, a second generation ICE inhibitor for chronic and acute inflammatory diseases; and VX-950, a small molecule inhibitor of hepatitis C virus protease. Based on clinical activities planned or underway for 2003, we expect to have clinical data in hand by the end of this year which will help us to select two drug candidates from this portfolio as priority candidates for clinical development and commercialization by Vertex in the U.S.

Partnerships remain a key component of Vertex's corporate strategy. We have collaborations with Aventis, GlaxoSmithKline, Kissei, Novartis, Schering AG (Germany), Serono and other companies. These collaborations provide us with financial support and other valuable resources for our research programs, development of our clinical drug candidates, and marketing and sales of our products. We believe that we are positioned to commercialize multiple products in the coming years through these partnerships, which we expect will generate significant downstream economic benefit to Vertex in the form of increased milestone payments, product revenues and royalty payments. We currently have drug candidates in clinical development under collaborations with GlaxoSmithKline and Aventis. In December, 2002, GSK submitted regulatory applications for market approval of 908 in the United States and Europe. With our partner Aventis we have demonstrated clinical proof of mechanism of pralnacasan (VX-740), a novel oral drug, in the treatment of rheumatoid arthritis, and have initiated a Phase II proof of concept clinical study of pralnacasan in osteoarthritis. We anticipate that Aventis will initiate a Phase IIb study of pralnacasan in rheumatoid arthritis during the first half of 2003.

Collaborations also are fueling progress in our early-stage pipeline. In 2002, as part of our broad research and development collaboration with Novartis, signed May 2000, Vertex selected three novel small molecule kinase inhibitors for preclinical development. We also have drug candidates in preclinical development under our collaboration with Serono. We have additional research programs underway, and additional novel Vertex drug candidates targeting bacterial gyrase, specific kinases and proteases could enter preclinical studies within the next 12 months. These drug candidates may have application in the treatment of bacterial or viral infection, cancer, inflammation and neurological diseases.

Recent advances in biological understanding, including the complete sequencing of the human genome, have elucidated a wide array of biological targets and mechanisms that could be modulated by novel small molecule drugs for the treatment of disease. We have dedicated a substantial portion of our research organization to pursue what we believe is a highly efficient and proprietary approach to discovering novel drugs directed at the most relevant of these targets and mechanisms. Our approach organizes and prioritizes targets within gene families, which are groups of genes with similar sequences that code for structurally similar proteins. This approach essentially clusters targets according to how they interact with chemical inhibitors, and allows us to use high-throughput screening technologies, informatics and medicinal chemistry to rapidly identify drug-like classes of compounds in parallel for multiple targets. In concert with this approach, we use a variety of biological and chemical methodologies that interrogate the function of newly discovered proteins in order to focus our drug discovery and development efforts on the most promising targets within the most promising gene families. We believe that our systematic application of this drug discovery approach is increasing the speed and efficiency of drug design efforts directed at novel biological targets, and is securing valuable intellectual property for us in gene families of interest. Ultimately, we believe that our use of this approach will result in the development and market introduction of many major new drugs.

We are presently applying our expertise in drug discovery to focus on the protein kinase, protease, caspase, and ion channel gene families, four areas in which we believe we can apply our drug design expertise to create product candidates that address a variety of sizable therapeutic indications. Our collaboration with Novartis could provide us up to \$800million in pre-commercial payments to discover, develop and commercialize up to eight kinase inhibitors for the treatment of a range of diseases, including cancer, cardiovascular diseases, and inflammatory diseases. The financial and technological support provided by Novartis has enabled us to expand both our infrastructure and our drug discovery efforts in the protein kinase gene family. Technology and expertise acquired through our acquisition of Aurora Biosciences Corporation in July 2001 have led to a significant expansion of our drug discovery efforts directed at ion channels, a major class of membrane-bound drug targets, and other target classes. We now have a substantial drug discovery organization focused on these target-rich gene families operating at our San Diego, CA site. We are employing a number of proprietary technologies that enhance our drug discovery efforts in these gene families including our E-VIPR system, a high throughput electrophysiology system for use in our ion channel drug discovery program, and Screening Island, which includes our Topology-Compensating Plate Reader (tcPR) and Flying Reagent Dispenser (FRD). We anticipate establishing new collaborations with major pharmaceutical companies in order to help provide the funding and resources needed to support these and other drug discovery efforts.

Over the next few years, we expect to continue our research and development efforts and to bring drug candidates through late stage clinical development and into commercialization. We also expect to license and acquire technologies, resources and products that have the potential to strengthen our drug discovery platform, product pipeline and commercial capabilities.

The Company's internet address is [www.vrtx.com](http://www.vrtx.com). The Company's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports are available to you free of charge through the "Investors" section of our website as soon as reasonably practicable after those materials have been electronically filed with, or furnished to, the Securities and Exchange Commission.

## **Product Pipeline**

Vertex has a broad pipeline of novel, small molecule drug candidates targeted at areas of high unmet medical need. We have concentrated our independent development and commercialization efforts on certain products for high-value markets where Vertex can effectively reach large patient populations with a sales force focused on specialists. At the same time, we are collaborating with partners to develop and market other Vertex-discovered products for selected major therapeutic areas. We believe this two-pronged approach will provide us with the opportunity to build long-term value for



Vertex shareholders and create the greatest number of product development opportunities for the Company.

## VERTEX-DRIVEN PROGRAMS

| Drug Candidate                             | Clinical Indications                            | Phase   | Company With Marketing Rights (Region) | Estimated U.S. Patient Population In Millions (Disease Indication) |
|--|---|---------|--|--|
| <b>Infectious Disease</b>                  |   |         |  |  |
| Merimepodib (VX-497)                       | Chronic hepatitis C                             | II      | Vertex (Worldwide)                     | 2.7 (HCV)  |
| VX-950                                     | Chronic hepatitis C                             | Preclin | Vertex (Worldwide)                     | 2.7 (HCV)  |
| <b>Inflammation and Autoimmune Disease</b> |   |         |  |  |
| VX-148                                     | Psoriasis; autoimmune diseases                  | II      | Vertex (Worldwide)                     | 2.7 (Psoriasis)  |
| VX-702                                     | Acute Coronary Syndromes; Inflammatory diseases | I       | Kissei (Japan); Vertex (R.O.W.)        | 1.9 (ACS)  |
| VX-944                                     | Autoimmune diseases                             | I       | Vertex (Worldwide)                     | NA   |
| VX-765                                     | Inflammatory diseases                           | Preclin | Vertex (Worldwide)                     | NA   |
| VX-850                                     | Inflammatory diseases                           | Preclin | Vertex (Worldwide)                     | NA   |
| <b>Genetic Disorders</b>                   |   |         |  |  |
| VX-563                                     | Multiple indications                            | I       | Vertex (Worldwide)                     | NA   |

## PARTNER-DRIVEN PROGRAMS

| Drug Candidate                             | Clinical Indications | Phase         | Company With Marketing Rights (Region)   | Estimated U.S. Patient Population In Millions (Disease Indication) |
|--|----------------------|---------------|--|--|
| <b>Infectious Disease</b>                  |                      |               |  |  |
| VX-175 (GW433908, 908)                     | HIV                  | NDA/MAA filed | GlaxoSmithKline (Worldwide except Far East); Vertex (Far East), co-promote (U.S. and E.U.) | 0.9 (HIV)  |
| VX-385                                     | HIV                  | I             | GlaxoSmithKline (Worldwide except Far East); Vertex co-promote (U.S. and E.U.)             | 0.9 (HIV)  |
| VX-799                                     | Sepsis               | Preclin       | Serono (Europe, Vertex profit sharing in U.S.)*; Vertex (R.O.W.)                           | 0.7 (Sepsis)   |
| <b>Inflammation and Autoimmune Disease</b> |                      |               |  |  |

|                         |   |         |  |                             |
|-------------------------|---|---------|--|-----------------------------|
| Pralnacasan<br>(VX-740) | Rheumatoid arthritis (RA);<br>osteoarthritis (OA); other inflammatory<br>diseases | II      | Aventis (Worldwide);<br>Vertex co-promote (U.S. and<br>E.U.)   | 2.1 (RA);<br>21 (OA)        |
| <b>Cancer</b>           |   |         |  |                             |
| VX-528                  | Oncology  | Preclin | Novartis (Worldwide)*;<br>Vertex co-promote (U.S. and<br>E.U.) | NA                          |
| VX-680                  | Oncology  | Preclin | Novartis (Worldwide)*;<br>Vertex co-promote (U.S. and<br>E.U.) | NA                          |
| <b>Neurology</b>        |   |         |  |                             |
| VX-608                  | Stroke and other neurological diseases  | Preclin | Novartis (Worldwide)*;<br>Vertex co-promote (U.S. and<br>E.U.) | 0.7<br>annually<br>(Stroke) |

\*  
Development option

## Research Programs

We have several research programs underway at the discovery stage, including multi-target programs that are representative of our gene family-based drug discovery approach, as well as single-target programs. We expect to advance numerous drug candidates into development in the next several years that are based on this ongoing research.

| GENE FAMILY/TARGET                | CLINICAL INDICATIONS  | COMPANY WITH MARKETING RIGHTS<br>(REGION)                              |
|-----------------------------------|---|--|
| Kinases                           | Cancer; inflammatory diseases;<br>neurodegenerative diseases                        | Novartis (Worldwide); Vertex<br>co-promote (U.S. and E.U.)             |
| Proteases/Caspases                | Neurological, inflammatory,<br>cardiovascular and viral diseases                    | Serono (Europe, Vertex profit<br>sharing in U.S.)*; Vertex<br>(R.O.W.) |
| Ion channels                      | Pain; cancer; inflammatory diseases;<br>cardiovascular diseases; metabolic diseases | Vertex (Worldwide)   |
| GPCRs                             | Pain; high blood pressure; asthma   | Vertex (Worldwide)   |
| Bacterial DNA gyrase B            | Bacterial infections  | Vertex (Worldwide)   |
| HCV protease (2 nd<br>generation) | Hepatitis C   | Vertex (Worldwide)   |
| Neurorestorative Agents           | Neurodegenerative disorders   | Schering AG (E.U.); Vertex profit<br>sharing in U.S.)                  |

\*  
Vertex retains rights in the protease gene family except for certain targets and compounds covered in existing collaborations

## Commercial Product and Clinical Development Programs

Our first product, Agenerase, received accelerated approval from the FDA in April 1999 and was launched in May 1999. We have one product, 908, for which an NDA is pending with the U.S. FDA, and an MAA is pending in the European Union. We have a total of 15 drug candidates in clinical and preclinical development to treat viral diseases, inflammation, cancer, autoimmune diseases, neurological disorders, and genetic disorders.

### VERTEX-DRIVEN DEVELOPMENT PROGRAMS

#### Infectious Disease Programs

##### *Hepatitis C Virus Infection*

Vertex is developing two drug candidates that target hepatitis C virus (HCV) infection by different mechanisms. The most advanced compound is merimepodib (VX-497), currently in Phase II development. Merimepodib targets hepatitis C indirectly through the inhibition of the human enzyme inosine 5'-monophosphate dehydrogenase (IMPDH). The second compound, VX-950, is in preclinical development. It targets the hepatitis C virus directly, by inhibiting the hepatitis C viral protease enzyme.

##### *IMPDH Program: Infectious Diseases*

Cells require adequate nucleotide levels to sustain RNA and DNA synthesis. Nucleotides can be made available for nucleic acid synthesis via two distinct pathways, the "salvage pathway" and " *de novo* synthesis." Using the salvage pathway, cells recycle nucleosides derived from breakdown of nucleic acids, whereas with *de novo* synthesis the purine or pyrimidine ring systems of the nucleotides are assembled in a stepwise manner. The enzyme IMPDH catalyzes an essential step in the *de novo* biosynthesis of guanine nucleotides, namely the conversion of inosine 5'-monophosphate (IMP) to xanthosine 5'-monophosphate.

Different cell types rely on these two pathways of nucleotide biosynthesis to varying degrees. Cells that proliferate relatively rapidly, such as lymphocytes and virus-infected cells, often rely more on the *de novo* pathway because they require more nucleotides than can be provided by the salvage pathway. This observation makes enzymes of the *de novo* pathway, such as IMPDH, an attractive target for pharmacological intervention aimed at selectively inhibiting proliferation of such cells.

Vertex is developing novel, orally administered inhibitors of IMPDH, targeting the treatment of both viral and autoimmune diseases. Our most advanced IMPDH-inhibiting compound, merimepodib, has demonstrated potent biological activity and oral bioavailability in preclinical and early clinical studies. Data from a Phase I trial in healthy volunteers, completed in 1998, show that merimepodib is well-tolerated in single escalating doses and achieves blood levels well above those necessary to achieve potent inhibition of IMPDH *in vitro*. In November 1999, we announced preliminary data from a Phase II clinical trial of merimepodib indicating that merimepodib, when given as monotherapy to HCV patients who were unresponsive to prior treatment with interferon-alpha, was well tolerated and appeared to reduce levels of serum alanine aminotransferase, a marker of liver inflammation, in HCV patients treated for 28 days.

We conducted a Phase II study of merimepodib combined with interferon-alpha in treatment-naïve patients with HCV infection in order to assess the safety, tolerability and clinical activity of this combination. The viral load data from this study showed a trend toward enhanced antiviral activity in patients given one of two doses of merimepodib combined with interferon as compared to patients receiving interferon alone. This is consistent with an additive antiviral effect mediated by merimepodib, when given in combination with interferon-alpha. Recent *in vitro* data generated by Vertex demonstrates that merimepodib also has an additive antiviral effect in combination with pegylated interferon and ribavirin. In 2002, we initiated a triple combination Phase II study of merimepodib with pegylated interferon and ribavirin. The study was designed to establish the safety of the triple

combination. It is a 6-month study, with an optional 6-month extension phase for patients who have responded to treatment. In addition, we will look for evidence of an additive antiviral effect for merimepodib when combined with pegylated interferon and ribavirin. The enrollment period for this study is complete. We expect to provide an update on the status of this development program in the second half of 2003.

We have two additional IMPDH inhibitors, VX-148 and VX-944, in development, targeting autoimmune and oncology indications. More information on VX-148 and VX-944 is available in the section titled "Autoimmune Diseases," beginning on page 8.

We retain all commercial rights to merimepodib and second generation compounds resulting from our IMPDH research and development program.

### *Hepatitis C Protease Program*

In 2001, Vertex and Eli Lilly selected VX-950, a potent, oral HCV protease inhibitor, for preclinical development. In the first quarter of 2003, Vertex announced that it had restructured its collaboration with Eli Lilly and now holds worldwide rights to VX-950. Based on preclinical work begun in 2002, we expect to begin Phase I clinical development of VX-950 in the second half of 2003. We believe that VX-950 is among the first reported drug development candidates of a new class of antiviral drugs being studied to inhibit hepatitis C NS3-4A protease, an enzyme considered essential for HCV replication. We believe that therapeutics such as VX-950 which directly target viral replication may significantly increase the number of patients that achieve a complete viral response, in which the virus is cleared from the body permanently. VX-950 has shown promising results in cellular assays and preclinical studies. VX-950 has the potential to become a first-in-class therapeutic and could provide an important treatment advance for individuals with chronic HCV infection. We have ongoing drug discovery efforts in the area of HCV protease inhibitors and we plan to select one additional drug candidate in the next 12 months. We hold worldwide rights to VX-950 and all other second-generation HCV protease inhibitors discovered in our collaboration with Eli Lilly.

### *Background: Hepatitis C*

Identified in 1989, hepatitis C virus (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. Sources at the Centers for Disease Control and Prevention (CDC) have estimated that approximately 2.7 million Americans, or more than 1% of the population, are chronically infected with HCV, and the World Health Organization (WHO) estimates that there are as many as 185 million chronic carriers of the virus worldwide. Currently, there is no vaccine available to prevent hepatitis C infection. The current standard treatment of hepatitis C viral infection is a combination of pegylated interferon-alpha and ribavirin. At present, however, approximately 50% of patients still fail to show long-term sustained response to pegylated interferon-alpha/ribavirin combination therapy. As a result, new safe and effective treatment options for HCV infection are needed.

## **Inflammation and Autoimmune Disease**

### *Inflammatory Disease*

#### *Interleukin-1 b Converting Enzyme Program*

Vertex is conducting research and development on inhibitors of interleukin-1 b converting enzyme (ICE; caspase-1) for the treatment of acute and chronic inflammatory conditions. We are collaborating with Aventis S.A. in the development of the lead ICE inhibitor compound, pralnacasan (VX-740). Vertex has independently continued research into second generation ICE inhibitors, as well as other caspase inhibitors. In 2000, we advanced VX-765, an ICE inhibitor representing a chemical class distinct from pralnacasan, into preclinical development. Preclinical data reported in 2001 showed that

VX-765 reduces inflammation and cytokine levels in animal dermatitis and arthritis models. We expect to begin Phase I clinical studies of VX-765 in the second quarter of 2003. We hold worldwide rights to VX-765 and other compounds emerging from our second generation ICE inhibitor research program. For more information on ICE inhibitors, see the Interleukin-1 b Converting Enzyme Program section of "Partner-Driven Programs" below.

#### *p38 MAP Kinase Program*

The p38 MAP kinase is a human enzyme involved with the onset and progression of inflammation and apoptosis. This enzyme plays a central role in regulating the cytokines TNF-alpha and IL-1 b . We have extensive pre-clinical and clinical experience with p38 MAP kinase inhibitors, which have the potential to be a powerful and broadly useful new class of oral anti-inflammatory drugs. The objective of our research collaboration with Kissei was to identify and extensively evaluate compounds that target p38 MAP kinase to develop novel, orally active drugs for the treatment of inflammatory diseases, such as rheumatoid arthritis, asthma, Crohn's disease, certain hematologic disorders, congestive heart failure, and neurological diseases such as stroke. We and Kissei selected VX-745 as a drug development candidate in 1998. In 2001, we obtained what we believe is the first clinical "proof of principle" data correlating inhibition of p38 MAP kinase with a significant anti-inflammatory effect, although we subsequently suspended development of VX-745 based on adverse neurological effect findings in long-term, high dose studies in one of two species of animals. We have refocused our p38 MAP kinase inhibitor development efforts with Kissei around a second generation compound, VX-702, which does not cross the blood brain barrier and represents a chemical class that is distinct from VX-745. We also have a third p38 MAP kinase inhibitor, VX-850, which is in preclinical development.

In June 2002, we initiated a Phase I clinical study of VX-702. The double-blind, placebo-controlled, randomized clinical trial was designed to test the safety, tolerability, pharmacokinetics and pharmacodynamics of VX-702 in single and multiple doses in healthy volunteers.

Vertex expects to begin Phase II development of VX-702 in the second quarter of 2003. As a novel p38 MAP kinase inhibitor, VX-702 would be expected to have benefit in a variety of diseases where inflammation plays an essential role. We intend to explore the potential of VX-702 in a variety of disease settings and have made a strategic decision to advance the clinical development of VX-702 in both acute and chronic disease indications. The initial focus of the Phase II program will be aimed at the use of VX-702 in acute coronary syndromes (ACS). ACS is a broad term that includes unstable angina and certain types of myocardial infarctions. We expect to provide further information on our development strategy for VX-702, including plans for a chronic indication, in the first half of 2003.

We have collaborated with Kissei on the discovery and development of novel p38 MAP kinase inhibitors since 1997. The research portion of our collaboration with Kissei was completed in 2000. Under the agreement with Kissei, we hold development and commercial rights in the United States and Europe for our p38 MAP kinase inhibitors. Kissei holds development and commercial rights in Japan and certain Asian countries for VX-745 and VX-702, but not VX-850.

#### *Background: p38 MAP Kinase Inhibitors for Inflammatory Disease*

The mitogen-activated protein (MAP) kinases are a family of structurally-related human enzymes involved in intracellular signaling pathways that enable cells to respond to their environment. When activated, the p38 MAP kinase triggers production of the cytokines IL-1, TNF-alpha, and IL-6. Excess levels of IL-1 and TNF-alpha are associated with a broad range of acute and chronic inflammatory diseases. We believe that an oral cytokine inhibitor such as VX-702 or VX-850 has significant dosing advantages over other available therapies.

The central role of inflammation in many cardiovascular diseases has been well established in scientific literature. Specifically, inflammation is being increasingly recognized as a key component of the overall process in the development of coronary artery disease and particularly acute coronary syndromes. The p38 MAP kinase enzyme regulates the production of key proinflammatory cytokines

implicated in the pathogenesis of ACS, including tumor necrosis factor-alpha (TNF-alpha), interleukin-1 b (IL-1 b ) and interleukin-6 (IL-6). As a potential once-daily therapy addressing a novel target for ACS, VX-702 could provide a first-in-class approach to complement current therapies for this disease, which affects nearly 1.9million individuals in the U.S. each year.

We are aware of several other companies that are developing p38 MAP kinase inhibitors, and competition could also come from other drugs, in development or approved, that have different mechanisms of action for treating rheumatoid arthritis and other inflammatory diseases.

### ***Autoimmune Diseases***

#### ***IMPDH program***

We are independently developing novel, orally administered inhibitors of the enzyme inosine 5'-monophosphate dehydrogenase (IMPDH), targeting the treatment of both autoimmune diseases and cancer. In 2000, we designated two second-generation IMPDH inhibitors, VX-148 and VX-944, as drug development candidates. VX-148 and VX-944 are chemical compounds structurally distinct from merimepodib, discussed above under the heading "IMPDH Program: Infectious Diseases". VX-148 and VX-944 are in Phase II and Phase I development, respectively.

In December2002, we initiated a Phase II clinical trial with VX-148 for the treatment of moderate to severe psoriasis. The Phase II double blind, randomized, placebo-controlled study will evaluate two different doses of VX-148 in 75 psoriasis patients who will be treated twice daily (BID) for 12 weeks, with a 12-week follow-up period. The primary objective of the study is to evaluate the safety, tolerability and pharmacokinetics of VX-148. The secondary objective is to preliminarily evaluate the clinical activity of VX-148, as assessed by various accepted measures of clinical outcomes for psoriasis treatment evaluation.

We also initiated a Phase I clinical trial of VX-944 in healthy volunteers in November2002. The primary objective of this study will be to evaluate the safety, tolerability, and pharmacokinetics of VX-944 compared to placebo.

IMPDH is a validated target for immunosuppressive drug development as evidenced by the presence of two marketed drugs that function through the inhibition of this enzyme:

- Mycophenolate mofetil (MMF, or CellCept), the prodrug ester of mycophenolic acid, has been developed and approved for the prevention of acute rejection in kidney, heart, and liver transplantation when used in combination with steroids and cyclosporin A (CsA).
- Mizoribine (Bredinin) is approved in Japan for multiple indications, including prevention of rejection after renal transplantation, idiopathic glomerulonephritis, lupus nephritis, and rheumatoid arthritis.

Based on the broad role of IMPDH in the regulation of immune system activity and cell growth, we believe that VX-148 and VX-944 have the potential to treat a wide variety of autoimmune diseases including such diseases as psoriasis, multiple sclerosis and rheumatoid arthritis, as well as many hematological and solid tumors.

### **Genetic Disorders**

In the first quarter of 2003, Vertex began a Phase I clinical trial of VX-563, an oral, small molecule modulator of gene expression that has potential application in sickle cell disease and other genetic disorders. The primary objective of the study is to evaluate the safety, tolerability and pharmacokinetics of VX-563 compared to placebo. VX-563 has been tested *in vitro* , and *in vivo* in animal models, for several disease indications including sickle cell disease and Huntington's disease.

VX-563 is thought to exert its effects pleiotropically, and we are working to better understand its exact mechanism of action in particular disease states. One mechanism that appears to be important is

the inhibition of histone deacetylation. Histones are small proteins that bind tightly to DNA and play a crucial role in the packing and folding of DNA into the nucleus. The acetylation state of histones can modulate gene expression, and VX-563 has been shown to affect histone acetylation *in vitro*.

Preclinical studies have demonstrated that VX-563 can selectively stimulate embryonic or fetal globin gene expression in a variety of experimental systems, suggesting that VX-563 may have therapeutic potential for the treatment of sickle cell disease. Current treatments for sickle cell disease are ineffective and often require a multi-disciplinary program including antibiotics, pain management, intravenous fluids, blood transfusion, and surgery. Hydroxyurea is the only chronic drug therapy commonly used to treat sickle cell disease. Due to safety concerns, hydroxyurea is currently only used in patients with severe disease.

VX-563 has the potential to be a novel, first-in-class treatment for sickle cell disease with the potential to treat as many as 70,000 patients who currently have limited treatment options. VX-563 also has potential application to other genetic disorders such as Huntington's disease, cystic fibrosis, and a -1 antitrypsin deficiency.

## **PARTNER-DRIVEN DEVELOPMENT PROGRAMS**

### **Infectious Disease Programs**

#### ***HIV/AIDS Program (GlaxoSmithKline)***

##### *Agenerase*

Our first marketed product is Agenerase (amprenavir), an orally deliverable drug for the treatment of HIV infection and AIDS. We created and developed Agenerase in collaboration with GlaxoSmithKline, using our expertise in structure-based drug design. Agenerase received regulatory approval in the U.S. in April 1999, and it is now marketed worldwide. GlaxoSmithKline is marketing Agenerase worldwide except for the Far East. We co-promote Agenerase in the U.S. and Europe. In Japan, we collaborated with Kissei Pharmaceutical Co., Ltd., in the development of amprenavir, which is sold by Kissei under the trade name Prozei™. Kissei received approval for amprenavir under a special fast-track initiative by the Ministry of Health and Welfare in Japan in September 1999. Amprenavir's market launch as Prozei followed shortly thereafter. We receive royalties on sales of amprenavir by GlaxoSmithKline and Kissei. We also supply amprenavir bulk drug substance to Kissei. We believe that approximately 15,000 patients in 51 countries worldwide take Agenerase as part of combination therapy for the treatment of HIV. Agenerase's share of HIV protease inhibitor prescriptions in the U.S. was approximately 6.2% as of December 31, 2002.

Agenerase has been approved for once-daily use based on data that demonstrates that the protease inhibitor ritonavir significantly boosts levels of Agenerase in the bloodstream in both once-daily and twice-daily dosing regimens. Co-administration of protease inhibitors with ritonavir has become progressively more frequent in clinical practice as a strategy for achieving maximum antiviral activity, reducing the likelihood of treatment failure (viral breakthrough), and lowering the overall pill count for patients. As of December 2002, 60% to 70% of Agenerase used in the United States was estimated to be in combination with ritonavir.

##### *908 (VX-175)*

Our second HIV protease inhibitor, 908 (also known as VX-175) is being developed by our partner GlaxoSmithKline as part of our collaboration with them.

908 is a prodrug of amprenavir designed to provide more compact dosing for patients. A prodrug is an inactive compound that is changed metabolically by the body to become active against disease. In view of the large number of pills that HIV-infected patients typically require daily as part of combination drug regimens, the dosing benefit of 908 could provide a material increase in physician

acceptance of and patient compliance with this product as compared to currently marketed protease inhibitors. VX-175 was synthesized at Vertex and then selected for development by GlaxoSmithKline.

Our partner GlaxoSmithKline has conducted and substantially completed a state-of-the-art Phase III clinical program for 908. This pivotal program included trials in both treatment-naïve and treatment-experienced patients. The first study (NEAT) compared 908 to nelfinavir in treatment-naïve patients. The second study (SOLO) compared 908 in combination with ritonavir, administered once-daily, to nelfinavir in treatment-naïve patients. The third study (CONTEXT) evaluated both once-daily and twice-daily dosing of 908 in combination with ritonavir, compared to lopinavir/ritonavir, in treatment-experienced patients. In all of these studies, patients received reverse transcriptase inhibitors as part of the combination regimen. In 2002, Vertex and GlaxoSmithKline reported that the NEAT and SOLO studies met their endpoints at 48 weeks, and that the CONTEXT study met its endpoints at 24 weeks. Based on data collected from all three pivotal trials, 908 demonstrated good tolerability. On December 20, 2002, GlaxoSmithKline filed a New Drug Application (NDA) with the U.S. Food and Drug Administration (FDA) and a Marketing Authorization Application (MAA) in the European Union (E.U.) for marketing approval of 908 in the U.S. and E.U. The submissions for registration included data from more than 1,100 treatment-naïve and treatment-experienced patients who participated in the Phase III trials. The FDA has informed GlaxoSmithKline that the NDA covering 908 has been accepted for filing and that 908 will receive a standard review. We have been informed by GlaxoSmithKline that its collection and submission of certain additional data requested by the FDA regarding 908 is proceeding as planned. We expect that 908 can be approved and launched in the U.S. in the fourth quarter of 2003.

Data from the Phase III clinical program was presented at various medical conferences in 2002 and 2003. In the NEAT trial, 66% of 166 HIV positive patients achieved an undetectable viral load with 908, compared to 51% of 83 patients taking nelfinavir. In the SOLO study, 68% of 322 HIV-positive patients achieved undetectable viral load with 908/ritonavir compared to 65% of 327 patients taking nelfinavir. The preliminary 24-week data from the CONTEXT study has shown similar efficacy responses in both the 908/ritonavir regimens and the lopinavir/ritonavir regimen, meeting the primary endpoint of non-inferiority in the study at 24 weeks. Data from the three pivotal trials has shown that the incidence of adverse events was low in 908 treatment groups.

908 will offer important new benefits as well as retaining many of the favorable properties associated with amprenavir including:

- a half-life which allows for convenient twice-daily dosing and provides high levels of the drug in the bloodstream;
- ability to be dosed once daily when co-administered with ritonavir;
- ability to be dosed effectively with or without food, providing convenience for patients;
- well tolerated;
- relatively low levels of cross-resistance to other protease inhibitors; and
- a favorable lipid profile.

GlaxoSmithKline is developing 908 and has marketing rights in the United States, Europe and certain countries of the Far East. We currently hold the option to develop and commercialize 908 in Japan. We also have a co-promotion option in the United States and the European Union, and we will receive royalties on any sales of 908 by GlaxoSmithKline. We also retain rights to supply bulk drug substance to GlaxoSmithKline.

VX-385

In 2001, GlaxoSmithKline advanced into preclinical development a third novel, orally available HIV protease inhibitor discovered by Vertex, VX-385 (GW640385). In November 2002, we announced



that GlaxoSmithKline had begun Phase I evaluation of VX-385. We expect that GlaxoSmithKline will continue clinical development of this compound in 2003. VX-385 is the third drug candidate that GlaxoSmithKline and Vertex have advanced into development as part of an ongoing collaboration to develop and commercialize HIV protease inhibitors. VX-385 is chemically distinct from Agenerase, 908, and other currently marketed protease inhibitors.

*Background: Treatment of HIV/AIDS*

Infection with HIV leads to AIDS, a severe, life-threatening impairment of the immune system. The World Health Organization (WHO) estimates that approximately 36.1million individuals worldwide are infected with HIV. The U.S. Centers for Disease Control estimates that there are 980,000 patients in the United States infected with HIV.

Protease inhibitors (PIs) are used as part of combination regimens for the treatment of HIV. PIs block the cleavage of HIV polyproteins into active proteins, and result in the production of non-infectious viral particles. Currently, more than 174,000 of the HIV patients receiving drug treatment in the U.S. take at least one PI. The market for HIV PIs is highly competitive, with seven different PIs vying for a share of the market. Worldwide sales of HIV PIs were estimated at more than \$1.6billion in 2002, and U.S. sales alone were estimated at more than \$950million in 2002.

There are now four classes of antiviral drugs approved for the treatment of HIV infection and AIDS: nucleoside reverse transcriptase inhibitors (NRTIs), such as AZT and 3TC; non-nucleoside reverse transcriptase inhibitors (NNRTIs), such as efavirenz; the fusion inhibitor enfuvirtide; and PIs, including Agenerase.

*Sepsis (Serono; Taisho)*

In 2001, Vertex advanced VX-799, a small molecule caspase inhibitor, into preclinical development targeting the treatment of sepsis. Sepsis is a life-threatening bacterial infection of the bloodstream that overwhelms the body's immune system and most commonly occurs among patients who have underlying conditions such as trauma, surgery, burns, cancer and pneumonia. Caspases play integral roles in both programmed cell death and inflammation, which have been implicated in sepsis. Sepsis may progress to multi-organ failure, shock and death. A potent caspase inhibitor may have the potential to provide a powerful treatment option for sepsis patients. Sepsis affects approximately 700,000 individuals in the U.S. each year and an additional 1.2million in Europe and Japan. Sepsis results in an estimated 200,000 deaths each year.

Vertex is currently conducting a range of preclinical studies with VX-799. Under an agreement signed in 2000, Serono S.A. holds an option to develop and commercialize VX-799 in Europe and as part of a joint venture with Vertex in the U.S. Taisho holds the option to develop and commercialize VX-799 in Japan and certain Asian markets.

*Background: Caspases and Sepsis*

Caspases are a family of 11 enzymes that play roles in numerous biological processes, including programmed cell death (apoptosis) and inflammation. More information on caspases is available in the section titled "Caspase Program" on page15. VX-799 has produced encouraging results in an apoptosis-dependent model of organ failure and several models of bacterial-induced sepsis. VX-799 may also have the potential to treat other diseases in which increased caspase activity is implicated.

## Inflammation and Autoimmune Disease

### *Inflammatory Disease*

#### *Interleukin-1 b Converting Enzyme Program (Aventis)*

We are conducting research and development on inhibitors of interleukin-1 b converting enzyme (ICE; caspase-1) for the treatment of acute and chronic inflammatory conditions. We are collaborating with Aventis S.A. in the development of the lead ICE inhibitor compound, pralnacasan (VX-740), and Aventis is investing to develop pralnacasan in parallel for both rheumatoid arthritis and osteoarthritis. In January 2003, Aventis began a Phase II proof-of-concept study of pralnacasan in patients with osteoarthritis. The study will evaluate 400 patients treated with pralnacasan or placebo for 12 weeks. The study is intended to enable Vertex and Aventis to evaluate the safety and efficacy of pralnacasan in osteoarthritis patients. We expect that Aventis will begin a Phase IIb study of pralnacasan in patients with rheumatoid arthritis in the second quarter of 2003.

In 2002, Aventis completed a 250 patient Phase IIa study in rheumatoid arthritis to evaluate clinical activity using standard measures of response to treatment, including the American College of Rheumatology (ACR) response criteria, which measure improvement in patient- and professionally-reported disease severity and activity. Data from the Phase IIa clinical trial demonstrated that treatment with pralnacasan was well tolerated and led to positive anti-inflammatory effects in patients with rheumatoid arthritis. More specifically, the Phase IIa data demonstrated that:

- Patients receiving pralnacasan exhibited a dose-dependent trend towards improvement in signs and symptoms of disease as measured by ACR20 response rates after 12 weeks.
- Patients receiving 1200 mg/day of pralnacasan in the intention-to-treat population exhibited ACR20 response rates of 44% compared to a response rate of 32.7% in the group receiving placebo.
- In post-hoc subset analyses, both patients receiving stable concomitant methotrexate (MTX) treatment for >6 months and patients not receiving concomitant MTX treatment exhibited statistically significant, dose-dependent improvement in ACR20 response rates with pralnacasan treatment.
- Patients receiving the higher dose of pralnacasan (1200 mg/day) had statistically significant reductions in the inflammatory biomarkers C-reactive protein, erythrocyte sedimentation rate, and serum amyloid A.
- Treatment with pralnacasan enabled patients to reduce their concomitant corticosteroid therapy.
- Pralnacasan was well tolerated. The incidence of dose limiting adverse events (AEs) were similarly distributed among treatment groups overall. The most common AEs judged to be treatment-related were mild to moderate diarrhea and nausea, which were seen in <5% of the study population and were generally unrelated to dose.

In 2000, Aventis completed a Phase IIa 28-day clinical trial of pralnacasan in patients with rheumatoid arthritis to evaluate the safety and pharmacokinetics of multiple doses of pralnacasan. Results showed dose-dependent suppression of the production of interleukin-1 b, a cytokine that plays a role in inflammation and tissue damage. A Phase I clinical trial of the compound, completed by Aventis in 1999, showed that the compound was well-tolerated in humans in a range of single doses. Under our 1999 agreement, Aventis holds an exclusive worldwide license to develop, manufacture and market pralnacasan in any indication, as well as an exclusive option for certain other compounds discovered under our previous research collaboration with Aventis. We will receive milestone payments for successful development of pralnacasan in rheumatoid arthritis, as well as for each additional indication for which it is developed (including osteoarthritis). Additionally, we will receive royalties on any sales of pralnacasan and Aventis will partially fund a Vertex co-promotion effort in the U.S.

*Background: ICE Inhibitors for Inflammatory Disease*

ICE (caspase-1) is an enzyme that controls the release of active interleukin-1 beta (IL-1 b) (one of two forms of IL-1) and IL-18 from white blood cells into the bloodstream and within tissues. IL-1 b and IL-18 are cytokines that mediate a wide range of immune and inflammatory responses in many cell types. Early in the inflammatory process, IL-1 b is released from white blood cells, initiating a complex cascade of events that results in inflammation and tissue damage. IL-18 is an important factor in the activation of lymphocytes, a type of white blood cell. Elevation of IL-1 b and IL-18 levels has been correlated with disease states in a number of acute and chronic inflammatory diseases.

Rheumatoid arthritis (RA) is the lead indication for the pralnacasan development program. In patients with RA, increased activity of IL-1 b and IL-18 is observed in joint tissues during disease flare-ups, and IL-1 b and IL-18 are known to activate osteoclasts, a cell type important in bone erosion characteristic of rheumatoid arthritis.

There are more than 6million patients with RA worldwide, including approximately 2.1million in the United States. The main drugs currently used to treat RA are non-steroidal anti-inflammatory drugs (NSAIDs) such as Motrin (ibuprofen) and Celebrex (celecoxib). These drugs are palliative—they relieve pain and swelling but do not reverse or prevent the progression of the disease. Methotrexate is a disease-modifying drug that is widely used, but its use is associated with side effects that include liver toxicity. Even when tolerated well, over the long term many patients become unresponsive to methotrexate. Newer therapies including Enbrel (etanercept) and Remicade (infliximab) provide a strong rationale for a new kind of disease-modifying therapy that involves inhibition of the cytokine tumor necrosis factor (TNF) alpha. In 2001 Kineret (anakinra) became the first therapy approved for RA targeting the cytokine IL-1 b . However, these newer agents are injectable, and can be inconvenient and painful to administer. We believe that a well tolerated oral cytokine inhibitor such as pralnacasan may have significant commercial advantages.

Osteoarthritis (OA) is the second indication for which pralnacasan is being developed. The inflammatory response plays a large role in the joint damage characteristic of OA, and increased cytokine activity has been observed in OA. Specifically, IL-1 b is a key driver of pathology in OA, and animal models provide a strong rationale for pursuing IL-1 b modulation for the treatment of OA.

OA, a degenerative joint disease, is the most common form of arthritis, afflicting more than 240million patients worldwide, including more than 21million in the United States alone. Onset generally occurs after middle age, and as the disease progresses, it causes the loss of cartilage, damage to bone, formation of bone spurs, and inflammation of the soft tissues. OA may also occur in joints that have suffered previous injury, have been subjected to prolonged heavy use, or have been damaged by prior infection or inflammatory arthritis. Patients with OA experience pain, tenderness, swelling and progressive loss of mobility. OA is currently treated with over-the-counter drugs as well as palliative treatment such as NSAIDs and COX-2 inhibitors. These drugs do not address the underlying progressive joint destruction, while patients with more severe cases may become candidates for partial or total joint replacement surgery.

Vertex and Aventis scientists began collaborating in 1993 to discover and develop orally available inhibitors of ICE. Our design efforts were based on the three-dimensional atomic structure of ICE, which was solved by Vertex researchers in 1994. As the result of an extensive, jointly conducted synthesis and research program, pralnacasan was selected as a development candidate in 1997. We believe that pralnacasan is the only specific ICE inhibitor to be advanced into clinical trials and is the most advanced oral cytokine inhibitor in development.

## RESEARCH PROGRAMS

### Vertex Drug Design Platform and Drug Discovery Strategy

We believe that our integrated drug design approach has significantly enhanced our ability to discover and develop small molecule drugs directed at biologically complex targets, including novel targets identified in genomic research. Our approach has been validated through our collaborations and success in moving drug candidates into clinical trials.

*Integrated Drug Design Approach.* Our drug design platform integrates advanced biology, biophysics, chemistry, automation and information technologies in a coordinated and simultaneous fashion throughout the discovery process. The goal of this interdisciplinary integration is to increase the speed and certainty of drug discovery and development. Early in the drug design process, we focus on qualities that are critical to the successful development of orally-available small molecules, including sufficient potency, oral bioavailability, adequate pharmacokinetics and safety. Our consistent achievement of these parameters in discovery efforts directed at biologically complex molecular targets has been a major reason for our high rate of productivity and success in competitive areas of drug discovery.

*Focused Drug Discovery in Target-Rich Gene Families.* Vertex has pioneered a novel approach to drug discovery in target-rich gene families. Our approach organizes and prioritizes targets within gene families, which are groups of genes with similar sequences that code for structurally similar proteins. This approach essentially clusters targets according to how they interact with chemical inhibitors, and allows us to use high-throughput screening technologies, informatics and medicinal chemistry to rapidly identify drug-like classes of compounds in parallel for multiple targets. In concert with this approach, we use a variety of biological and chemical methodologies that interrogate the function of newly discovered proteins in order to focus our drug discovery and development efforts on the most promising targets within the most promising gene families. We believe that our systematic application of this drug discovery approach is increasing the speed and efficiency of drug design efforts directed at novel biological targets, and is securing valuable intellectual property for us in gene families of interest. Ultimately, we believe that our use of this approach will result in the development and market introduction of many major new drugs.

### Target-Rich Gene Family Drug Discovery Programs

We have four major research programs in target-rich gene families. These research programs utilize our focused drug design approach in the kinase, caspase, protease, and ion channel gene families. We believe that our integrated approach and our proprietary technologies allow us to rapidly identify appropriate chemical side chains for these scaffolds that will provide specificity for a particular target of interest within a cluster of related protein targets.

#### *Kinase Program*

We have a broad-based drug discovery effort targeting the human protein kinase family, which consists of approximately 500 members. Protein kinases are enzymes that play a key role in transmitting signals between and within cells. Kinases exert their effect by phosphorylating other proteins, which then become activated and perform a specific function. Kinase activity has been implicated in most major diseases, including cancer and autoimmune, inflammatory, cardiovascular, metabolic, and neurological diseases. Thus, kinases can be ideal targets for therapeutic intervention. The clinical success of the oncology drugs Gleevec (Novartis) and Iressa (Astra Zeneca) offer examples of how small molecule kinase inhibitors can be tailored to address specific diseases.

In May 2000 we entered into an agreement with Novartis PharmaAG to collaborate on the discovery, development and commercialization of small molecule drugs directed at protein kinases. The support provided by Novartis is enabling us to further expand both our infrastructure and parallel drug

design efforts within this family. The collaboration addresses all human protein kinases excluding a small number of targets for which the two companies had substantial efforts underway prior to initiation of the agreement. For example, the p38 MAP kinase, excluded from our Novartis collaboration, is the molecular target for the Vertex drug candidates VX-702 and VX-850, which are in different stages of clinical development for inflammatory disease.

In 2002, we selected three novel, small molecule kinase inhibitors from our program with Novartis for preclinical and clinical development. VX-528 is a small molecule inhibitor of Aurora kinases, which are three closely-related proteins required in rapidly dividing cells. Inhibition of Aurora kinase activity with a small molecule may provide a means of slowing or reversing the uncontrolled cell growth observed in cancer. VX-680 is a potent small molecule inhibitor of Aurora kinases and of FLT3 kinase. More than 30% of patients with acute myelogenous leukemia (AML) have activating mutations of FLT3. Thus VX-680 could provide therapeutic benefits for solid tumors and for hematological malignancies including AML. We also selected VX-608, a small molecule inhibitor of GSK3- $\beta$  kinase. In June, 2001 we reported the 3-dimensional atomic structure of GSK3- $\beta$ . Vertex researchers have developed proprietary information on the function of GSK3- $\beta$  in the onset and progression of stroke, and have used that information to design and optimize VX-608. VX-608 has demonstrated broad activity in reducing tissue damage and improving outcomes in several preclinical models of stroke.

Vertex has advanced drug discovery efforts underway targeting several additional, undisclosed kinase targets, including targets that play a role in the development and progression of cancer, inflammation and cardiovascular disease. As part of our kinase research program, we have designed numerous kinase inhibitors that have demonstrated pharmacodynamic activity in animal models of diabetes, cancer, restenosis, and stroke.

The infrastructure created over the first 3 years of the Novartis/Vertex collaboration has enabled a parallel approach to drug discovery in the kinase gene family. This unique approach has Vertex poised for continued productivity. Over the next five years, we envision advancing a significant number of kinase inhibitors into clinical development targeting multiple therapeutic areas.

### *Caspase Program*

Caspases are a subfamily of proteases that play specific roles in apoptosis and inflammation. The human caspase family presently includes 11 structurally related enzymes. We are designing novel small molecule inhibitors of selected caspase enzyme targets to treat a variety of diseases in which inflammation and apoptosis play a role. Our scientists are applying the expertise gained through our successful design and optimization of ICE inhibitors. We applied our knowledge of ICE and other caspases to the design of VX-799, a small molecule caspase inhibitor with the potential to treat sepsis, and we anticipate selecting an additional small molecule caspase inhibitor drug candidate for clinical development in the coming years. VX-799 is currently in preclinical development.

All cells have the ability to self-destruct via a tightly-regulated pathway known as apoptosis in response to certain signals. Apoptosis is an essential component of numerous biological processes, including tissue remodeling and immune system regulation. When not properly regulated, apoptosis can have damaging effects and contribute to a variety of diseases. Our discovery effort is focused on the design of small molecules for inhibiting caspase-mediated apoptotic and inflammatory processes, thereby exerting a protective effect on cells in specific tissues. Potential indications include tissue damage related to acute conditions such as stroke and myocardial ischemia, and neurodegenerative disorders such as Alzheimer's disease and Parkinson's disease.

Through gene knockout studies, our scientists have gained important insight into the biological role of different caspases in the activation of apoptosis in specific cells and tissues. Vertex research teams have solved the three-dimensional atomic structures of four caspases, including one caspase from each of the three caspase subfamilies, and more than 50 enzyme/inhibitor complexes. Different caspases share similar structural features, and by using parallel structural approaches combined with new medicinal and computational chemistry tools, Vertex scientists made rapid progress in the design and

synthesis of multiple lead classes of compounds. Our caspase research effort reflects the implementation of our strategy for exploiting emerging genomic information by targeting families of structurally-related proteins for drug discovery.

In September 1999, Vertex signed an expanded agreement with Aventis to collaborate on the development of pralnacasan, an orally active inhibitor of ICE (caspase-1). In November 1999, we began collaborating with Taisho Pharmaceutical Co., Ltd. to discover, develop, and commercialize other caspase inhibitors in Japan and certain Far East markets. In December 2000, we entered into a collaboration with Serono S.A. to discover, develop, and market caspase inhibitors in other territories, including North America, where we have the option to establish a joint venture with Serono.

#### *Ion Channel Program*

Vertex is making a significant investment in the creation of a broad-based ion channel drug discovery effort that incorporates our medicinal chemistry and modeling expertise, augmented by significant proprietary technologies. The ion channel gene family contains numerous druggable targets that play a role in the pathogenesis of cancer as well as inflammatory, cardiovascular and metabolic diseases. Existing therapies such as amlodipine and nifedipine, which are calcium channel blockers for the treatment of hypertension, and lamotrigine and carbamazepine which are sodium channel inhibitors for the treatment of epilepsy, provide a strong rationale for developing drugs targeting ion channels. Important targets for a range of therapeutic indications are potentially found across all ion channel subfamilies. Vertex will utilize its expertise in assay development and screening to advance discovery efforts within this family. We also have extensive experience in the development of proprietary and highly sensitive instruments which detect changes in a cell membrane's electrical potential due to ion channel activity. We are developing next generation ion channel screening technology to enable the discovery of ion channel modulators with appropriate drug-like characteristics. Within the next 18 months we expect to select novel small molecule drug candidates from this program for preclinical development.

#### *Protease Program*

We also have a drug discovery effort targeting both human and viral proteases. The protease gene family consists of approximately 400 proteases that play a role in many different diseases. As in our kinase program, we are using an approach that leverages structural similarity to create chemical scaffolds applicable to a range of protease targets. We intend to leverage our expertise in proteases to discover and develop additional drug candidates targeting members of the protease family.

Vertex has broad experience across the protease family and has successfully designed drug candidates targeting aspartyl, cysteine, and serine proteases, representing three of the four protease subfamilies. Our efforts targeting HIV protease (an aspartyl protease) have resulted in one marketed drug, Agenerase, and two additional drugs in clinical development, including 908, which has a pending NDA filed with the U.S. FDA. Vertex, together with Aventis, Serono and Taisho have pioneered research and development efforts to design drugs targeting caspases (which are cysteine proteases). Our lead drug candidate targeting caspase-1, pralnacasan, is now in a broad Phase II development program. We also have two additional drug candidates targeting caspases in development. In 2003, Vertex expects to advance VX-950, an inhibitor of HCV protease (a serine protease), into Phase I development. We believe our extensive experience in proteases will allow us to design additional drugs targeting protease enzymes that have high clinical and commercial potential.

#### *Additional Gene Families*

We plan to utilize our proprietary gene family-based platform and experience in structure-based drug design to pursue targets in additional, medically important gene families. We have exploratory efforts underway in g-protein coupled receptors (GPCRs), nuclear receptors and phosphatases.

## Single Target Research Program

### *Bacterial Gyrase*

We are engaged in the discovery of novel antibiotics that target DNA gyrase B, an essential enzyme found in many bacteria. DNA gyrase is utilized during the bacterial replication process. DNA gyrase inhibitors already on the market have proven to be potent, broad-spectrum antibiotics and are used to treat a variety of common gram-positive and gram-negative infections in various treatment settings. Existing gyrase inhibitors, which work by interacting with the gyrase A subunit, achieved worldwide sales of nearly \$4 billion in 2001. In contrast, we are targeting the gyrase B subunit, and specifically the ATP-binding site that is highly conserved across multiple species of bacteria. We have discovered a class of molecules that also shows activity against the highly similar parE subunit of topoisomerase IV, another essential bacterial enzyme. These dual gyrB/parE inhibitors not only appear to be potent in preclinical testing, but may also be less susceptible to the development of drug resistance, a major and growing problem with marketed antibiotics. We are currently optimizing this dual inhibitor class and plan to select a clinical candidate in 2003.

## Neurological Diseases

### *Background: Neurological Diseases*

Neurodegenerative disorders are among the diseases with the fewest available effective treatments. Central nervous system disorders such as Alzheimer's disease, Parkinson's disease and multiple sclerosis affect millions of patients worldwide, and for some of these there are no approved therapies that alter the course of disease progression. Peripheral neuropathies encompass a wide spectrum of clinical syndromes for which treatments of only limited efficacy are available.

Effective treatment of both central and peripheral neurological disorders has long been hampered by the inability to slow, arrest, or reverse nerve damage or progression. Other companies are developing various neurotrophic factors (proteins) for these indications, but we believe that their clinical utility is likely to be limited because of the difficulty of the delivery of protein drugs to nervous system tissues. Based on our extensive research in the field of immunosuppressive drugs, we have generated a large number of compounds, known as neurophilin ligands or neurophilin compounds, that improve outcomes in various models of neurological diseases. Extensive *in vitro* and *in vivo* studies conducted with a reference compound designed by Vertex support the broad potential of our neurophilin ligands in the treatment of degenerative central nervous system and peripheral nervous system diseases. Our researchers are seeking to determine the mechanism of action of neurophilin ligands.

### *Research Compounds*

We are engaged in a worldwide strategic collaboration with Schering AG (Germany) for research, development and commercialization of neurorestorative agents for the treatment of a variety of neurological disorders. During 1999, we announced that orally administered neurophilin compounds discovered at Vertex, including compounds that do not interact with FKBP-12, significantly improve outcome in two different preclinical models of Parkinson's disease. We also reported for the first time that compounds that do not interact with FKBP-12 can improve outcomes in animal models of peripheral neuropathies. We continue to characterize the potential of compounds from this program in a variety of neurological disease models. We have used an integrated drug design technique to synthesize a library of orally available small molecule compounds that have the potential to prevent nerve damage or improve recovery following nerve injury. Some compounds have been chosen for a more detailed investigation with the objective of selecting compounds for preclinical development in the future.

## Key Components of Our Technology Platform

We have created an integrated technology platform which employs a variety of technologies, and which uses information from many different scientific disciplines early and continuously throughout the drug discovery process. We believe that our integrated approach, as demonstrated by our track record in drug design directed at biologically complex targets, provides for faster and more productive drug discovery compared to historical averages for the pharmaceutical industry. Since our inception in 1989, we have advanced more than 15 drug candidates into development directed at biologically complex targets in areas of unmet medical need. Selected technologies include:

*Genomics and Bioinformatics.* To further our parallel drug design strategy, we place a great emphasis on collecting, annotating, and organizing scientific information from both public and private sources. This information can be from scientific sources (biological, genomic, chemical, or clinical) and from patents. We have developed proprietary software to help scientists access and learn from this information.

*Functional Genomics.* We use a number of functional genomics techniques, such as gene knock-out mice, to help guide target selection and test the potential of chemical compounds in disease models. Site-directed mutagenesis is used to identify critical residues for drug interaction in the active site of a molecular target. Our patented GenomeScreen technology allows us to identify and validate targets by scanning the genome of living human cells and identifying those genes activated or repressed in various disease states. We have used GenomeScreen to assist us in mapping gene activation and cell signaling pathways and in characterizing poorly understood cellular processes. We also use antisense, siRNA, dominant negative cell lines, and other biological approaches to better characterize the role played by specific targets in cellular processes.

*Biophysics.* One of our core strengths is the generation of atomic structural information on molecular targets using X-ray crystallography and nuclear magnetic resonance (NMR) spectroscopy to guide design and optimization of lead classes of drugs. Recent improvements in protein production and automated liquid handling have dramatically increased our ability to perform parallel crystallization trials. Our scientists have also pioneered innovative NMR techniques, including a proprietary technology called NMR SHAPES, which can screen molecular subunits for weak affinity to a molecular target. This initial screening can quickly identify lead classes of molecules for further evaluation.

*Computer-based Modeling.* We apply advanced, proprietary computational modeling tools to guide the evaluation and selection of compounds for synthesis. During our virtual ("in silico") screening process, in excess of one billion compounds can be evaluated in one day to select several hundred or several thousand candidate compounds for synthesis and screening. These in silico tools enable us to analyze libraries of compounds for their potency, cell permeability, solubility, and other physical and biological properties relevant for drug design. Based on experimental results, new information is added to the process and the cycle is repeated. By using proprietary algorithms to sort and filter compounds for specific properties, our chemists can focus on synthesizing compounds that are more likely to lead to the rapid identification of development candidates.

*Medicinal and combinatorial chemistry.* Medicinal chemistry expertise is a key part of our drug discovery process. Medicinal chemists visually evaluate each compound that emerges through *in silico* screening processes and provide insight into the creation of focused libraries for screening. We use combinatorial chemistry to design diverse libraries based on promising early leads.

*Pharmacology.* We employ a number of approaches designed to provide predictive information on the bioavailability and pharmacokinetic profile of potential compounds at the earliest stages of the drug discovery process. These approaches, which include *in vitro* metabolism and toxicological studies and *in vivo* assessment of leads in predictive animal models, provide greater certainty that a compound will have the desired properties of an oral drug.



*Assay Development.* We have premier capabilities in assay development and screening that allow us to rapidly generate large numbers of high quality lead compounds and drug candidates across all major gene families. We conduct several hundred assays per year, and are utilizing our assay development to develop novel proprietary assays to establish the ADME/toxicology profiles for compounds in our screening library. We believe that our assay capabilities allow us to gain useful information about our compounds early in the discovery process, which furthers research productivity.

*Assay Technologies.* Our assay development and screening platform is built upon a number of capabilities and gene reporter technologies, such as green fluorescent protein (GFP) and beta lactamase, to which we acquired rights through our 2001 acquisition of Aurora Biosciences Corporation. A key technology for the assay development platform is beta lactamase, which enables fluorescence-activated cell sorting, and is readily adapted to a broad range of target classes. Vertex continues to find useful applications of beta-lactamase, such as GenomeScreen.

*High-Throughput Screening.* Vertex significantly enhanced its chemical management and screening capabilities with the acquisition of Aurora Biosciences Corporation. These capabilities include aspects of the proprietary ultra high-throughput screening (UHTSS) system which integrates compound management, plate replication with miniaturized screening, hit (potential lead) identification and follow-up. The ultra high-throughput capability is achieved through the use of our NanoWell assay plate, which contains 3,456 wells in a standard microplate footprint. Assays for most enzyme and receptor targets are conducted in this format.

*Ion Channel Platform.* Our patented universal ion channel technology platform, includes the VIPR (Voltage/Ion Probe Reader) and VIPRII subsystems, proprietary voltage sensor probes and assay methods. This platform facilitates the rapid generation of screening assays and the high throughput screening of ion channel targets by optically measuring changes in membrane potential in live cells in an automated, microtiter plate format. Vertex has developed advanced proprietary applications of these technologies which enable high-throughput, mechanistic studies of compound action on ion channels. These applications include the development of our E-VIPR platform which enables optical membrane potential assays for detecting activity of rapidly gating channels, such as certain voltage-gated channels.

## **Corporate Collaborations**

We have entered into corporate collaborations with pharmaceutical companies that provide financial and other resources, including capabilities in research, development, manufacturing, and sales and marketing, to support our research and development programs. At present, we have the following major corporate collaborations:

### *Novartis Pharma AG*

In May 2000 we entered into an agreement with Novartis Pharma AG to collaborate on the discovery, development and commercialization of small molecule drugs directed at targets in the kinase protein family. Under the agreement, Novartis agreed to pay us up to approximately \$600million in pre-commercial payments, comprised of a \$15million up-front paid upon signing of the agreement, up to \$200million in product research funding over six years and up to approximately \$400million in further license fees, milestone payments and cost reimbursements. These further amounts are based on the development of eight drug candidates. We are responsible for drug discovery and clinical proof-of-concept testing of all drug candidates. Under our agreement, Novartis has also created a \$200million loan facility to support our clinical studies, which we may draw down in amounts of up to \$25million for each drug candidate. The loans are interest free and Novartis will forgive the full amount of any advances with respect to a particular drug candidate if Novartis accepts the drug candidate for further development under our agreement. During 2002 we drew a \$5million advance against the loan facility to support our early development efforts related to a particular drug candidate. Novartis will have exclusive worldwide development, manufacturing and marketing rights to clinically and commercially

relevant drug candidates that it accepts from us for development. We will receive royalties on any products that are marketed as part of the collaboration. Subject to certain conditions, we will have co-promotion rights in the United States and Europe. Upon one year's written notice, Novartis may terminate this agreement without cause, effective no earlier than May, 2004.

*Aventis S.A.*

In September 1999, we entered into an expanded agreement with Hoechst Marion Roussel (HMR) covering the development of pralnacasan. HMR and Rhone-Poulenc Rorer merged to form Aventis in December 1999. Aventis has an exclusive worldwide license to develop, manufacture and market pralnacasan, as well as an exclusive option for certain other compounds discovered as part of the research collaboration between HMR and us that ended in 1997. Aventis will fund the development of pralnacasan. We may co-promote the product in the United States and Europe and will receive royalties on global sales, if any. Under the agreement, Aventis has paid us a \$20million up-front payment for prior research costs, and has agreed to pay us up to \$62million in milestone payments for successful development by Aventis of pralnacasan in rheumatoid arthritis, the first targeted indication. Milestone payments are also due for each additional indication. Aventis initiated a Phase IIa clinical study of pralnacasan in osteoarthritis in January 2003. The agreement also provides that Aventis will partially fund a Vertex co-promotion effort in the U.S. Aventis has the right to terminate this agreement without cause upon six months' written notice. Termination by Aventis will end any license we have granted Aventis under the agreement.

*GlaxoSmithKline*

In December 1993, we entered into a collaboration with GlaxoSmithKline covering the research, development and commercialization of HIV protease inhibitors, including Agenerase (amprenavir), 908 (an amprenavir prodrug), and VX-385, a chemically distinct protease inhibitor. GlaxoSmithKline has exclusive rights to develop and commercialize our HIV protease inhibitors in all parts of the world except the Far East and pays us a royalty on sales. We have retained certain bulk drug manufacturing rights and certain co-promotion rights in the territories licensed to GlaxoSmithKline. Under the collaborative agreement, GlaxoSmithKline agreed to pay us up to \$42million, comprised of a \$15million up-front license payment paid in 1993, \$14million of product research funding over five years and \$13million of development and commercialization milestone payments for an initial drug candidate. We have received the entire \$42million and in 1999 began receiving royalties on sales of Agenerase. GlaxoSmithKline is also obligated to pay us additional development and commercialization milestone payments for subsequent drug candidates, including 908 and VX-385. In the fourth quarter of 2002 we received a milestone payment of \$1.5million from GlaxoSmithKline in connection with the submission of an application for marketing approval for 908 in the U.S. and the European Union. In addition, GlaxoSmithKline is required to bear the costs of development in its territory under the collaboration.

GlaxoSmithKline has the right to terminate its agreement with us without cause upon twelve months' notice. Termination of the agreement by GlaxoSmithKline will relieve it of its obligation to make further commercialization and development milestone and royalty payments, and will end any license granted to GlaxoSmithKline by us.

We and GlaxoSmithKline have a non-exclusive, worldwide license under certain Searle (now owned by Pharmacia/Pfizer) patent applications claiming HIV protease inhibitors, to permit Vertex and GlaxoSmithKline to develop, manufacture and market Agenerase and 908 free of the risk of intellectual property claims by Searle. The terms of the license require us to pay Searle a royalty on net sales.

*Serono S.A.*

In December 2000, we entered into a collaboration with Serono S.A. to discover, develop, and market caspase inhibitors. The Agreement covers caspase inhibitors other than certain ICE inhibitors

and related compounds which are the subject of our agreement with Aventis described above. Under the terms of the agreement, we could receive up to \$95million to support and expand our drug discovery activities in the caspase protein family, including milestone payments as drug candidates move through development. We have received \$5million in up-front payments for prior research, and could also receive up to \$20million in research funding, some of which has been paid, over the five year agreement term. We could also receive up to \$70million in milestone payments for the successful development and commercialization of one or more drug candidates. The two companies will share development costs. We have the option to establish a joint venture with Serono for the commercialization of products in North America, where we will share marketing rights and profits from the sale of drug products. Serono will have exclusive rights to market caspase inhibitors in other territories, excluding Japan and certain other countries in the Far East, and will pay us for supplies of drug substance. Serono has the right to terminate the agreement without cause upon 90days' written notice, effective at July1, 2004.

*Taisho Pharmaceutical Co.,Ltd.*

In November 1999, we entered into a collaboration with Taisho covering the discovery, development, and commercialization of caspase inhibitors for the treatment of cerebrovascular, cardiovascular and neurodegenerative diseases. Taisho's research program funding obligations ended in the third quarter of 2002, and its development options with respect to compounds generated in this program ended in February 2003. Taisho has paid the full amount required to be paid by it under the program but has not elected to bring any compounds into development in its territory.

*Schering AG (Germany)*

In August 1998, we entered into a collaboration with Schering AG covering the research, development and commercialization of novel, orally active neurophilin ligand compounds to promote nerve regeneration for the treatment of a number of neurological diseases. Vertex and Schering AG have an equal role in management of neurophilin ligand research and product development. The agreement provided that Schering AG would pay us up to \$88million, comprised of a \$6million up-front payment made upon signing in September1998, \$22million of product research funding over five years and up to \$60million of development and commercialization milestone payments. Research funding under this agreement concluded in the fourth quarter of 2002, and we received the full amount of research funding specified in the agreement. Schering AG has an option exercisable until February24, 2004 to designate a compound or compounds for development. In North America, we will have manufacturing rights, and we will share equally with Schering AG in the marketing expenses and profits from commercialized compounds. In addition to having manufacturing rights in North America, we retain the option to manufacture bulk drug substance for sales in territories outside Europe, the Middle East and Africa. Schering AG will have the right to manufacture and market any commercialized compounds in Europe, the Middle East and Africa, and will pay us a royalty on any product sales. Schering AG has the right to terminate the agreement without cause upon six months' written notice.

*Kissei Pharmaceutical Co.,Ltd.*

*HIV Protease Inhibitors.* In April1993, we entered into a collaboration with Kissei covering the development of amprenavir, our HIV protease inhibitor. Kissei has exclusive rights to develop and commercialize amprenavir in Japan and will pay us a royalty on sales. We are responsible for the manufacture of bulk drug substance for Kissei. Under the collaborative agreement, Kissei agreed to pay us up to \$20million, comprised of \$9.8million of product research funding over three years, \$7million of development and commercialization milestone payments and a \$3.2million equity investment upon signing the agreement. We have received the full amount of research funding specified under the agreement.

*p38 MAP Kinase*. In September 1997, we entered into a collaboration with Kissei to identify and develop compounds that target p38 MAP kinase. We are collaborating with Kissei in the development and commercialization of VX-702, a novel, orally active p38 MAP kinase inhibitor for the treatment of ACS and inflammatory diseases. Kissei has exclusive rights to develop and commercialize VX-702 in Japan and certain Southeast Asian countries, and semi-exclusive rights in China, Taiwan and South Korea. We retain exclusive marketing rights in the United States, Canada, Europe, and the rest of the world. In addition, we will have the right to supply bulk drug material to Kissei for sale in its territory, and will receive royalties and drug supply payments on any product sales. Under the terms of the agreement, Kissei agreed to pay us up to \$22 million, comprised of a \$4 million up-front license payment paid in September 1997, \$11 million of product research funding over three years and \$7 million of development and commercialization milestone payments. Additionally, Kissei agreed to pay certain development costs. The research program ended on June 30, 2000, and we have received the full amount of research funding specified under the agreement. Kissei has the right to terminate the agreement without cause upon six months' notice.

#### *Eli Lilly & Company*

In June 1997, we entered into a collaboration with Eli Lilly covering the development of novel small molecule compounds to treat hepatitis C infection, including VX-950. In December 2001, together with Eli Lilly, we selected VX-950 for development. In December 2002, we restructured our agreement with Eli Lilly ending the research collaboration approximately six months early and granting us worldwide rights to compounds identified during the collaboration. We will lead development and commercialization of VX-950. We will pay Eli Lilly a royalty on future product sales of VX-950 and other HCV protease inhibitor compounds.

### **Discovery Tools and Services**

#### *Overview*

We acquired Aurora Biosciences Corporation and its subsidiary PanVera Corporation (PanVera) in July 2001. At the time of the acquisition, Aurora was in the business of developing and commercializing core technologies to accelerate the discovery of new medicines, including a broad portfolio of proprietary fluorescence assay technologies and screening platforms designed to provide an integrated solution for drug discovery. Fluorescence assay technologies developed and commercialized by Aurora include GeneBLAzer™, GenomeScreen™, Vivid™ and PhosphoryLIGHT™ technologies, as well as a broad collection of fluorescent proteins. Aurora's screening platforms include its ultra high-throughput screening system, the UHTSS Platform, and its automated master compound store, the AMCS Platform, as well as its ion channel screening platform, which includes proprietary voltage sensor probes and voltage ion probe reader, the VIPR™ subsystem. Aurora produced and sold proteins, and provided protein cloning, expression and purification services through PanVera. Aurora also provided target discovery, assay development, screening and other services to its customers.

As of July 1, 2002, we began to commercialize Aurora instruments and services, together with PanVera's reagents and probes business, under the name PanVera LLC. PanVera LLC's core business includes commercialization of fluorescence assay technologies, assay development services, the manufacture and sale of proteins, reagents and probes and the development and sale of instrumentation systems. The former Aurora site in San Diego, now operating under the name Vertex Pharmaceuticals (San Diego) LLC (Vertex San Diego), focuses mainly on pharmaceutical drug discovery. Vertex San Diego has retained exclusive rights to certain proprietary research tools, including particularly the E-VIPR system and certain voltage sensor probes, for use solely in pharmaceutical research. We also retained freedom to operate and innovate under all technologies transferred to PanVera LLC for commercialization.

On February 4, 2003, Vertex and PanVera LLC entered into an Asset Purchase Agreement with Invitrogen Corporation, pursuant to which Invitrogen agreed to purchase certain assets of PanVera LLC, including certain biochemical and cellular assay capabilities and its commercial portfolio of proprietary reagents, probes and proteins, for approximately \$95million in cash plus the assumption of certain liabilities. The disposition did not include the instrumentation system assets. The sale was completed on March 28, 2003. In connection with the sale we have agreed with Invitrogen that we may use in our drug discovery activities, but will not engage for a term of five years in the business of providing, reagents, probes or assay development services. We will also purchase a minimum of \$3million of products annually from Invitrogen for three years after the completion of the sale.

The instrumentation business formerly conducted by Aurora and PanVera LLC will now be conducted under the name Aurora Instruments LLC.

### ***Instruments***

Our patented ion channel technology platform, which includes the VIPR subsystem, its proprietary voltage sensor probes and voltage ion probe reader, was first released in 1997. This platform facilitates the rapid generation of screening assays and the high-throughput screening of ion channel targets by optically measuring changes in membrane potential in live cells in an automated, microtiter plate format. Our second-generation voltage ion probe reader, the VIPR II subsystem, is capable of screening in 96-well and 384-well microplate formats, with a significant increase in throughput over the original VIPR subsystem. Because our ion channel technology platform focuses on changes in membrane potential, it is a universal platform that is independent of the particular ion being transported by the target channel. It is applicable to the majority of ion channel families, including voltage-gated and ligand-gated potassium, sodium, calcium and chloride channels, as well as other types of channels. We are also developing other instruments that we believe will significantly impact the productivity of our drug discoveries effort. Our Flying Reagent Dispenser (FRD) performs automated, high-speed, accurate liquid dispensing for stand-alone, benchtop applications using high-density plate formats. The Topology-Compensating Plate Reader (tcPR) provides fast, multi-channel ratiometric fluorescence reading on high-density assay plates. Accuracy is enhanced by adapting the optics to the topology of each plate, compensating for small differences in topology ("warping") from one plate to the next. The multi-tip piezo dispenser delivers nanoliter to microliter volumes with very high accuracy for reformatting compound libraries and other liquid stocks. The automated liquid handler can handle any combination of plates from 96 to 3,456-wells per plate.

We continue to develop instruments to enable the decentralization of screening and dose response work in cell-based and biological based assays. Screening Island I (SSI), the first stage of this deployment, enables the unattended screening of >100,000 compounds in a 10 hour time period. It contains two FRDs, two incubators for mammalian cell culture or assay incubation, and a high speed dual channel fluorescent reader. The instrument package is integrated with commercially available scheduling software and a high precision laboratory scale robot. The SSI was first put into service in February 2002. Screening Island II is the next generation instrument that is designed to have an integrated, miniaturized chemical handling feature. As designed, the system will enable the preparation of dosed screening plates from a miniaturized library of chemical samples contained in nanoplates.

E-VIPR is Vertex's proprietary ion channel screening technology which uses fluorescent probes and waves of electrical stimulation to study ion channels. E-VIPR provides an automated, high-throughput platform with which we can obtain data of comparable quality to patch clamping at speeds up to a thousand times faster. E-VIPR can be used to study both fast and slow channel activity and to study state dependence, a phenomenon in which compounds bind preferentially to certain conformations of channels. E-VIPR can be used to study mechanism of action as well as to determine the selectivity of compounds for specific ion channels. With respect to voltage-gated channels, electrical stimulation eliminates the need for the addition of liquids and pharmacological modifiers which often distort the native conformation and activity of ion channels.

Some of our instruments are available commercially through our wholly-owned subsidiary Aurora Instruments LLC.

## Intellectual Property

We vigorously pursue patents to protect our intellectual property. As of December 31, 2002, we owned, in whole or in part, 130 issued U.S. patents and 204 pending U.S. patent applications covering proprietary technologies and intellectual property within our discovery and development programs, as well as foreign counterparts in many other countries. We were also exclusively licensed to 19 additional issued U.S. patents and 14 pending U.S. applications, as well as foreign counterparts thereof. As of the same date, our subsidiary PanVera LLC owned or exclusively licensed an additional 33 issued U.S. patents and 25 pending U.S. applications as well as foreign counterparts thereof covering their technologies. Upon the sale of certain assets of PanVera LLC on March 28, 2003, we transferred to the buyer of those assets all of PanVera LLC's rights to the patents and patent applications related to those assets, and entered into non-exclusive licenses permitting us freedom to operate under the PanVera LLC patents and patent applications solely in the research field and to fulfill existing obligations.

We actively seek, when appropriate, protection for our products and proprietary information by means of United States and foreign patents, trademarks and contractual arrangements. In addition, we rely upon trade secrets and contractual arrangements to protect certain of our proprietary information and products. In addition to patents and pending patent applications that relate to potential drug targets, compounds we are developing to modulate those targets, and methods of using those compounds, we have several patents and pending patent applications directed to proprietary elements of our drug discovery platform. These include a patent application on our SHAPES approach to NMR-based screening and on the use of a protein or a mutant of that protein to design inhibitors of other related proteins. We have also filed patent applications and obtained patents related to the three-dimensional atomic structures of targets of interest, the use of those structures to design drugs, classes of compounds that bind to a target of interest, and the interactions required between a compound and a target of interest.

Much of our technology and many of our processes depend upon the knowledge, experience and skills of key scientific and technical personnel. To protect our rights to our proprietary know-how and technology, we require all employees, consultants and advisors to enter into confidentiality agreements that prohibit the disclosure of Vertex confidential information to anyone outside Vertex. These agreements typically require disclosure and assignment to Vertex of ideas, developments, discoveries and inventions made by employees, consultants and advisors.

### *Patents and Pending Applications*

We have issued patents and pending applications in the United States, and in foreign countries we deem appropriate, covering intellectual property developed as part of each of our most advanced research, development and commercialized programs. These include:

- issued United States patents that cover classes of chemical compounds, pharmaceutical formulations and/or uses of the same for treating HIV infection and AIDS. The patents include specific coverage for amprenavir, pharmaceutical formulations containing amprenavir and methods of using of amprenavir to treat HIV infection or AIDS-related central nervous system disorders. Another issued United States patent covers processes for preparing synthetic intermediates useful in the synthesis of a class of compounds that includes amprenavir. We have a non-exclusive, worldwide license under certain Searle patent applications claiming HIV protease inhibitors. We have an issued patent in the United States and patents and pending applications in other countries claiming 908 and related compounds. We also have applications pending in the United States and other countries claiming VX-385 and related compounds.
- issued United States patents that cover classes of chemical compounds, pharmaceutical compositions containing such compounds, and methods of using those compounds to treat or

prevent IMPDH-mediated diseases. The class of compounds covered by one of these patents includes merimepodib. We also have an issued patent in the United States and patents and pending applications in other countries claiming VX-148, VX-944, and related compounds.

- issued United States patents covering pralnacasan, the active metabolite of pralnacasan, and several different classes of compounds useful as inhibitors of ICE, as well as pharmaceutical compositions containing those compounds and methods of using those compounds to treat ICE-related diseases. These patents and applications also include a series of patents and applications purchased from Sanofi S.A., in July 1997. We also have a United States patent obtained from Sanofi S.A. that covers DNA sequences encoding ICE. We also have applications pending in the United States and other countries claiming VX-765 and related compounds.
- an issued patent that covers a class of chemical compounds that includes VX-745, as well as applications claiming VX-745 specifically, compositions comprising those compounds and the use of those compounds to treat p38-related disorders, as part of our p38 MAP kinase research and development program. We also have applications pending in the United States and other countries claiming VX-702, VX-850, and related compounds.
- issued United States patents covering various classes of chemical compounds and their use to treat a wide variety of neurological disorders.
- issued United States patents and pending applications covering assays useful to evaluate potential inhibitors of hepatitis C protease. We also have issued United States patents covering the X-ray crystal structures of hepatitis C protease and hepatitis C helicase, including the use of those structures to develop hepatitis C protease inhibitors and hepatitis C helicase inhibitors, respectively. Other issued United States patents and worldwide pending applications cover VX-950, additional hepatitis C protease inhibitors and hepatitis C helicase inhibitors.
- applications pending in the United States and other countries claiming VX-799 and related compounds. We also have filed applications claiming other classes of caspase inhibitors and have an issued U.S. patent on a mutant caspase target discovered under our caspase inhibitors program.
- issued United States patents claiming pharmaceutical compositions comprising VX-563 and related compounds, and methods of treating various diseases with such compositions.
- issued United States patents and filed applications worldwide claiming inhibitors of multiple kinases, as part of our kinase research programs.
- filed applications and an issued United States patent for methods of designing novel chemical inhibitors of protein kinases. The patented method involves using mutagenesis techniques to create hybrid kinases that act as surrogate targets for drug design and compound screening. This method, which combines the disciplines of cell biology, structural genomics, computational chemistry and medicinal chemistry, may accelerate the design and development of new drug candidates by reducing lead discovery and optimization timelines.
- filed applications claiming inhibitors of bacterial gyrase.

We do not know whether any patents will issue from any of our patent applications or, even if patents issue or have issued, that the issued claims will provide us 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 uncertain. We also cannot be sure that we will be able to avoid infringing, and thus having to negotiate a license under, any patents issued to others, or that a license to such patents would be available on commercially acceptable terms, if at all.





## **Manufacturing**

We rely on third party manufacturers and collaborative partners to produce our compounds for clinical purposes and may do so for commercial production of any compounds that are approved for marketing. Commercial manufacturing of Agenerase is being done by GlaxoSmithKline. We retain the option to manufacture a portion of GlaxoSmithKline's requirements for bulk drug substance for Agenerase and its prodrug, 908. If we were to exercise that option, we would expect to need to rely upon one or more contract manufacturers to manufacture the bulk drug substance on our behalf.

We have established a quality assurance program intended to ensure that third party manufacturers under contract produce our compounds in accordance with the FDA's current Good Manufacturing Practices, or cGMP, and other applicable regulations.

We believe that all of our existing compounds can be produced using established manufacturing methods, primarily through standard techniques of pharmaceutical synthesis. We believe that we will be able to continue to negotiate third party manufacturing arrangements on commercially reasonable terms and that it will not be necessary for us to develop internal manufacturing capability in order to successfully commercialize our products. Our objective is to maintain flexibility in deciding whether to develop internal manufacturing capabilities for certain of our potential products. However, in the event that we are unable to obtain contract manufacturing, or obtain such manufacturing on commercially reasonable terms, we may not be able to commercialize our products as planned. We have limited 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 we will further develop such capabilities successfully.

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

The production of our compounds is based in part on technology that we believe to be proprietary. We may license this technology to contract manufacturers to enable them to manufacture compounds for us. In addition, a contract manufacturer may develop process technology related to the manufacture of our compounds that the manufacturer owns either independently or jointly with us. This would increase our reliance on that manufacturer or require us to obtain a license from that manufacturer in order to have our products manufactured.

Our subsidiary Aurora Instruments LLC manufactures and supports the UHTSS Platform, the AMCS Platform, the sample distribution system, and the VIPR II at its facilities in San Diego, California, except certain components of the UHTSS Platform and AMCS Platform, which are purchased from Universal Technologies, Inc., and the enclosures for the UHTSS Platform and AMCS Platform, which are purchased from Environmental Specialties, Inc.

## **Competition**

We are engaged in biopharmaceutical 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 same human therapeutic applications as those that we are targeting. In order for us to compete successfully, we must demonstrate improved safety, efficacy, ease of manufacturing and market acceptance of our products over those of our competitors who have received regulatory approval and are currently marketing their drugs. In the field of HIV protease inhibition, Abbott Laboratories, Inc., Bristol Myers Squibb, Hoffmann-La Roche, Merck & Co., Inc. and Pfizer Inc. have other HIV protease inhibitor drugs in development or on the market. Many of our

competitors have substantially greater financial, technical and human resources than ours and are more experienced in the development of new drugs.

## **Government Regulation**

Our 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 Investigational New Drug application (IND) which is filed to comply with FDA regulations prior to commencement of human clinical testing in the U.S. For diseases for which no appropriately predictive animal model exists, no such results can be filed. For several of our drug candidates, no appropriately predictive model exists. As a result, no *in vivo* evidence of efficacy will be available until such compounds progress to human clinical trials.

Clinical trials typically are 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 and duration 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 at the institution at which the study will be conducted. The Institutional Review Board 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 a New Drug Application (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, money 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 drug 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.

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, 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. We intend to seek the benefits of this statute, but there can be no assurance that we 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, we are 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.

## **Employees**

As of December 31, 2002, we had more than 980 employees, including approximately 678 in research and development, and 303 in general and administrative functions. Approximately 75 of these employees were located at our U.K. research and development facility, 118 of these employees were located at our PanVera LLC facility in Madison, Wisconsin, and 235 of these employees were located at our facility in San Diego. Upon the sale of certain assets of PanVera LLC on March 28, 2003, the PanVera LLC employees were hired by the buyer of those assets, and are no longer our employees. Our scientific staff members (300 of whom hold Ph.D. and/or M.D. degrees, including 21 at PanVera LLC) 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. Our employees are not covered by a collective bargaining agreement, and we consider our relations with our employees to be good.

## EXECUTIVE OFFICERS AND DIRECTORS

The names, ages and positions held by our executive officers and directors are as follows:

| Name                                | Age | Position  |
|-------------------------------------|-----|---|
| Joshua S. Boger, Ph.D.              | 51  | Chairman and Chief Executive Officer  |
| Vicki L. Sato, Ph.D.                | 44  | President   |
| John J. Alam, M.D.                  | 41  | Senior Vice President of Drug Evaluation and Approval   |
| Lynne H. Brum                       | 39  | Vice President, Corporate Development and Communications  |
| Iain P. M. Buchanan                 | 49  | Vice President, European Operations; Managing Director, Vertex Pharmaceuticals (Europe) Limited |
| Kenneth S. Boger                    | 56  | Senior Vice President and General Counsel   |
| N. Anthony Coles, M.D.              | 42  | Senior Vice President, Commercial Operations-Pharmaceutical Products                            |
| Ian F. Smith, CPA                   | 37  | Vice President and Chief Financial Officer  |
| Barry M. Bloom, Ph.D.               | 74  | Director  |
| Roger W. Brimblecombe, Ph.D., D.Sc. | 73  | Director  |
| Stuart J. Collinson, Ph.D.          | 43  | Director  |
| Donald R. Conklin                   | 66  | Director  |
| Bruce I. Sachs                      | 43  | Director  |
| Charles A. Sanders, M.D.            | 71  | Director  |
| Elaine S. Ullian                    | 55  | Director  |

All executive officers are elected 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. Joshua Boger is a founder of Vertex. He has been Chief Executive Officer since 1992 and Chairman of the Board since 1997. He was our President from our inception in 1989 until December 2000, and Chief Scientific Officer from 1989 until May 1992. Dr. Boger has been a director since Vertex's inception. Prior to founding Vertex 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 holds a B.A. in chemistry and philosophy from Wesleyan University and M.S. and Ph.D. degrees in chemistry from Harvard University. Dr. Boger is the brother of Mr. Kenneth Boger, the Company's Senior Vice President and General Counsel.

Dr. Sato joined Vertex in September 1992 as Vice President of Research and Chief Scientific Officer. She was appointed Senior Vice President of Research and Development in September 1994 and became President of Vertex in December 2000. She served as Chair of the Scientific Advisory Board from 1992 until December 2000. 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.

Dr. Alam served as Vice President of Clinical Development of the Company from October 1997 until January 2001, when he was appointed Senior Vice President of Drug Evaluation and Approval. Dr. Alam came to Vertex from Biogen, Inc., where he held a variety of positions from 1991-1997, including Director of Medical Research and Program Executive for Avonex (beta interferon). Prior to joining Biogen, Dr. Alam was

a Research Fellow at the Dana Farber Cancer Institute and had

completed an internal medicine residency at The Brigham and Women's Hospital in Boston. Dr. Alam holds an M.D. from Northwestern University Medical School and a S.B. in Chemical Engineering from the Massachusetts Institute of Technology.

Ms. Brum joined Vertex as Director, Corporate Communications in 1994 and was Vice President of Corporate Communications of the Company from 1998 until January 2001, when she was appointed Vice President of Corporate Communications and Market Development. In December 2001 she was appointed Vice President, Corporate Development and Communications. Ms. Brum came to Vertex from Feinstein Kean Healthcare, a communications and business consulting practice, where she was a vice president. Previously, she held corporate communications and research positions at Biogen, Inc. Ms. Brum holds an M.B.A. from the Simmons Graduate School of Management, and a B.A. in biological sciences from Wellesley College.

Mr. Buchanan joined Vertex 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 S.A. 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. Kenneth Boger joined Vertex as Senior Vice President and General Counsel in September 2001. He came to Vertex from the law firm of Kirkpatrick & Lockhart LLP, where he was a partner specializing in business and corporate law and was a member of the firm's Management Committee. Prior to the merger of Kirkpatrick & Lockhart with the Boston law firm of Warner & Stackpole LLP in 1999, Mr. Boger was a partner at Warner & Stackpole, where he served on the Executive Committee from 1988 to 1997. Mr. Boger holds a B.A. in history from Duke University, an MBA from the Graduate School of Business at the University of Chicago, and a J.D. from Boston College Law School. Mr. Boger is the brother of Dr. Joshua Boger, the Company's Chairman and Chief Executive Officer.

Dr. Coles joined Vertex as Senior Vice President, Commercial Operations-Pharmaceutical Products in March, 2002. He came to Vertex from Bristol-Myers Squibb, where he served in a variety of positions since joining BMS in 1996, including Senior Vice President of Strategy and Policy, Senior Vice President, Marketing and Medical Affairs for the Neuroscience, Infectious Disease, and Dermatology Division, Vice President, West Area Sales—Cardiovascular and Metabolic Business Unit for U.S. Primary Care, and Vice President, Cardiovascular Global Marketing. Prior to joining BMS, Dr. Coles was Vice-President of the Hypertension and Heart Failure Business Group at Merck. Dr. Coles holds an M.D. degree from Duke University, a Masters Degree in Public Health from Harvard University and a B.S. degree from Johns Hopkins University.

Mr. Smith joined Vertex as Vice President and Chief Financial Officer in October 2001. He came to Vertex from Ernst & Young, LLP, an accounting firm, where he had served as a partner in their Life Science and Technology Practice since 1999. He had various responsibilities in the accounting, auditing and mergers and acquisitions groups. Mr. Smith initially joined Ernst & Young's U.K. firm in 1987, and then joined their Boston office in 1995. Mr. Smith holds a B.A. in Accounting and Finance from Manchester Metropolitan University, U.K., is a member of the American Institute of Certified Public Accountants and is a Chartered Accountant of England and Wales.

Dr. Bloom has served as our director since 1994. He was formerly with Pfizer Inc., as Executive Vice President of Research and Development from 1992 to 1993, as Vice President from 1990 to 1992, and as a director from 1973 to 1993. He also serves as a director of Cubist Pharmaceuticals Inc., Neurogen Corporation and Microbia. Dr. Bloom will retire as a director of Vertex effective as of the 2003 Annual Meeting of Shareholders.

Dr. Brimblecombe has served as our director since 1993. He served as Chairman of Vanguard Medical Ltd. from 1991 to 2000, as Chairman of Core Group plc from 1997-1999, and as Chairman of Oxford Asymmetry International plc from 1997 to 2000. From 1979 to 1990, he held various Vice

Presidential posts in SmithKline& French Laboratories' research and development organization. He also serves as a director of several companies located in Europe, Singapore and Australia. He holds Ph.D. and D.Sc. degrees in Pharmacology from the University of Bristol, England.

Dr.Collinson joined us as a member of the Board of Directors in July2001. He currently serves as a Partner at Forward Ventures. Prior to our merger with Aurora in 2001, Dr.Collinson served as the President, Chief Executive Officer and Chairman of the Board of Aurora. Before joining Aurora, Dr.Collinson served as a consultant to Aurora from December1998 to May1999 and as Chief Executive Officer of Andaris,Ltd., a privately held biopharmaceutical company, from June1998 to November1998. Prior to Andaris, Dr.Collinson held senior management positions with Glaxo Wellcome from December1994 through June1998, most recently serving as Co-Chairman, Hospital and Critical Care Therapy Management Team and Director of Hospital and Critical Care. Dr.Collinson received his Ph.D. in physical chemistry from the University of Oxford, England and his M.B.A. from Harvard University.

Mr.Conklin has served as our director since 1994. He served as Executive Vice President of Schering Plough from 1986 to 1996, when he retired. He also serves as a director of AlfaCellInc. and Ventiv HealthInc.

Mr.Sachs has served as our director since 1998. He currently serves as a General Partner at Charles River Ventures. From 1998 to 1999, he served as Executive Vice President and General Manager of Ascend Communications,Inc. From 1997 until 1998, Mr.Sachs served as President and CEO of Stratus Computer,Inc. From 1995 to 1997, he served as Executive Vice President and General Manager of the Internet Telecom Business Group at Bay Networks,Inc. From 1993 to 1995, he served as President and Chief Executive Officer at Xylogics,Inc.

Dr.Sanders has served as our director since 1996. He retired in 1994 as Chief Executive Officer and in 1995 as Chairman of GlaxoInc. From 1990 to 1995, he served as a member of the board of Glaxo plc. From 1981 to 1989, Dr.Sanders held a number of positions at the Squibb Corporation, including that of Vice Chairman. Dr.Sanders has served on the boards of Merrill Lynch, Reynolds Metals Co. and Morton InternationalInc. He is currently a director of Biopure Corporation, Cephalon Corporation, Genentech,Inc., Scios,Inc., and TrimerisInc.

Ms.Ullian has served as our director since 1997. Since 1996, she has served as President and Chief Executive Officer of Boston Medical Center. From 1994 to 1996, she served as President and Chief Executive Officer of Boston University Medical Center Hospital. From 1987 to 1994, Ms.Ullian served as President and Chief Executive Officer of Faulkner Hospital. She also serves as a director of Thermo Electron Corporation.

## **SCIENTIFIC ADVISORY BOARD**

Vertex's Scientific Advisory Board consists of individuals with demonstrated expertise in various fields who advise us concerning long-term scientific planning, research and development. The Scientific Advisory Board also evaluates our research programs, recommends personnel to us and advises us on

technological matters. The members of the Scientific Advisory Board, which is chaired by Dr. Mark Murcko, our Chief Technology Officer, are:

Mark Murcko, Ph.D. Vice President and Chief Technology Officer, Vertex Pharmaceuticals Incorporated.

Vicki L. Sato, Ph.D. President, Vertex Pharmaceuticals Incorporated.

Steven J. Burakoff, M.D. Laura and Isaac Perlmutter Professor, New York University School of Medicine; Director, New York University Cancer Institute; Director, Skirball Institute of Biomolecular Medicine.

Eugene H. Cordes, Ph.D. Retired Professor of Medicinal Chemistry, College of Pharmacy and Adjunct Professor of Chemistry, College of Literature, Science and the Arts, University of Michigan, Ann Arbor.

Stephen C. Harrison, Ph.D. Higgins Professor of Biochemistry, 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. Amory Houghton Professor of Chemistry and Biochemistry, Harvard University.

Robert T. Schooley, M.D. Tim Gill Professor of Medicine and Head of the Division of Infectious Diseases, University of Colorado Health Sciences Center.

Dr. Roger Tsien, Ph.D. Investigator, Howard Hughes Medical Institute; Professor of Pharmacology and Professor of Chemistry and Biochemistry, University of California, San Diego.

Other than Dr. Murcko and Dr. Sato, none of the members of the Scientific Advisory Board is employed by Vertex, 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 us. Accordingly, such persons are expected to devote only a small portion of their time to us. In addition to our Scientific Advisory Board, we have established consulting relationships with a number of scientific and medical experts who advise us on a project-specific basis.



## RISK FACTORS

### **WE DO NOT KNOW WHETHER AGENERASE SALES WILL CONTINUE AT CURRENT LEVELS OR IF 908 SALES WILL BE AT A LEVEL AT OR ABOVE SALES LEVELS FOR AGENERASE.**

Agenerase's share of the worldwide protease inhibitor market may decrease due to competitive forces and market dynamics, including the launch of 908, which we expect could take place in the fourth quarter of 2003. Similarly, 908 may face similar competitive pressures, if it receives marketing approval from U.S. and foreign regulatory authorities and is commercially launched. Other HIV protease inhibitors and a number of other products, including Gilead's Viread, DuPont's Sustiva and GlaxoSmithKline's Ziagen, are on the market for the treatment of HIV infection and AIDS. Other drugs are still in development by our competitors, including Bristol Myers Squibb and Boehringer Ingelheim, which may have better efficacy, fewer side effects, easier administration and/or lower costs than Agenerase or 908. Moreover, the growth in the worldwide market for HIV protease inhibitors has, to a certain extent, occurred as a result of early and aggressive treatment of HIV infection with a protease inhibitor-based regimen. Changes in treatment strategy, in which treatment is initiated later in the course of infection, or in which treatment is more often initiated with a regimen that does not include a protease inhibitor, may result in less use of HIV protease inhibitors. In addition, the clinical benefit of strategies used by clinicians to boost drug levels of Agenerase (and possibly 908) by co-administering other antiretroviral agents may not prove to be effective, or may not result in increased revenues. As a result, the total market for protease inhibitors, in the U.S. and Europe, may decline, decreasing the sales potential of Agenerase and 908. Further, although we co-promote Agenerase and will co-promote 908 in the U.S. and key markets in Europe, GlaxoSmithKline directs the majority of the marketing and sales efforts and we will have little control over the success of those efforts. GlaxoSmithKline has the right to terminate its agreement with us without cause upon twelve months' notice.

### **IF WE DO NOT SUCCESSFULLY DEVELOP OUR DRUG PIPELINE, WE MAY NOT GENERATE SUFFICIENT FUNDS TO ACHIEVE OR SUSTAIN PROFITABILITY IN THE FUTURE.**

As of December 31, 2002, our collaborators and we were conducting clinical development of 8 product candidates resulting from our research and development programs, including additional clinical trials of 908, merimepodib, pralnacasan, VX-148 and VX-702, and preclinical testing of 7 product candidates from these programs. All of the products that we are pursuing will require extensive additional development, testing and investment, as well as regulatory approvals, prior to commercialization. Our product research and development efforts may not be successful. Our drug candidates may not enter preclinical or clinical studies as or when anticipated or receive the required regulatory approvals. Moreover, our products, if introduced, may not be commercially successful. The results of preclinical and initial clinical trials of products under development by us are not necessarily predictive of results that will be obtained from large-scale clinical testing. Clinical trials of products under development may not demonstrate the safety and efficacy of such products or result in a marketable product. In addition, the administration alone or in combination with other drugs of any product developed by us may produce undesirable side effects in humans.

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 us. In addition, the FDA may require additional clinical trials, which could result in increased costs and significant development delays. While all or a portion of these additional costs may be covered by payments under our collaborative agreements, we bear all of the costs for our development candidates that are not partnered.

**IF DELAYS IN PATIENT ENROLLMENT SLOW OUR DEVELOPMENT PROCESS WE MAY LOSE OUR COMPETITIVE ADVANTAGE OR BE UNABLE TO BRING OUR DRUGS TO MARKET.**

The rate of completion of clinical trials of our 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, the level of compliance by the clinical sites to clinical trial protocols, and the availability of clinical trial material. Delays in patient enrollment in clinical trials may result in increased costs, program delays or both, which could have a material adverse effect on our company. While all or a portion of these additional costs may be covered by payments under our collaborative agreements, we bear all of the costs for our development candidates that are not partnered. If our clinical trials are not completed, we may not be able to submit a new drug application. If we are able to file a new drug application, such application may not be reviewed and approved in a timely manner, if at all.

**IF WE DO NOT OBTAIN REGULATORY APPROVAL FOR OUR PRODUCTS ON A TIMELY BASIS, OR AT ALL, OUR REVENUES WILL BE NEGATIVELY IMPACTED.**

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 can take many years and may vary substantially based upon the type, complexity and novelty of the pharmaceutical product. 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 planned clinical trials for our drug candidates in clinical development, including merimepodib, pralnacasan, VX-148 and VX-702. It may also delay or prevent the commercialization of our products, including 908, which are developed and submitted for approval, for a considerable period of time, impose costly procedures upon our activities and provide competitive advantages to companies more experienced in regulatory affairs that compete with us. Moreover, even if approval is granted, such approval may entail limitations on the indicated uses for which a compound may be marketed. Although we have been informed by GlaxoSmithKline that its NDA covering 908 has been accepted by the FDA and that the collection and submission of additional data regarding 908 is proceeding as planned, a significant delay in marketing approval of 908 could adversely impact our revenues.

**IF WE ARE UNABLE TO ATTRACT AND RETAIN COLLABORATIVE PARTNERS FOR RESEARCH SUPPORT AND THE DEVELOPMENT AND COMMERCIALIZATION OF OUR PRODUCTS, WE MAY NOT BE ABLE TO FUND OUR RESEARCH AND DEVELOPMENT ACTIVITIES.**

Our collaborative partners have agreed to fund portions of our research and development programs and/or to conduct certain research and development relating to specified products. In exchange, we have given them technology, product and marketing rights relating to those products. Some of our corporate partners, including Novartis, GlaxoSmithKline and Aventis, have rights to control the planning and execution of product development and clinical programs. Our collaborative partners may exercise their control rights in ways that may negatively impact the timing and success of those programs. Our collaborations are subject to termination rights by the collaborators. If any of Novartis, GlaxoSmithKline or Aventis were to terminate its relationship with us, or fail to meet its contractual obligations, it could have a material adverse effect on our ability to undertake research, to fund related and other programs and to develop, manufacture and market any products that may have resulted from the collaboration. For example, if Novartis were to terminate its collaboration with us before the end of the research term specified in the contract, we would no longer be eligible to receive milestone payments and reimbursements worth as much as \$470million from Novartis. We expect to seek additional collaborative arrangements to provide research support and to develop and

commercialize our products in the future. We may not be able to establish acceptable collaborative arrangements in the future and even if we establish such collaborations, they may not be successful. Under certain of our collaborative agreements, our collaborators have agreed to provide funding for only a portion of our research and development activities and we are committed to investing our own capital to fund the remainder of the agreed upon programs. However, we may not have adequate financial resources to satisfy those requirements.

**IF WE LOSE OUR TECHNOLOGICAL ADVANTAGES, WE MAY NOT BE ABLE TO COMPETE IN THE MARKETPLACE.**

We believe that our chemogenomics platform and parallel drug design strategy give us a technological advantage. However, the pharmaceutical research field is characterized by rapid technological progress and intense competition. As a result, we may not realize the expected benefits from these technologies. For example, a large pharmaceutical company, with significantly more resources than we have, could pursue a novel, systematic approach to discover drugs based on gene families using proprietary drug targets, compound libraries, compound approaches, structural protein analysis and information technologies. Such a company might identify broadly applicable compound classes faster and more effectively than we do, impeding our ability to develop and market drugs based on our approach. Further, we believe that interest in the application of structure-based drug design, parallel drug design and related approaches may continue and may accelerate as the strategies become more widely understood. Businesses, academic institutions, governmental agencies and other public and private research organizations are conducting research to develop technologies that may compete with those we use. It is possible that our competitors could acquire or develop technologies that would render our technology obsolete or noncompetitive. For example, a competitor could develop information technologies that accelerate the atomic-level analysis of potential compounds that bind to the active site of a drug target, and predict the absorption, toxicity, and relative ease-of-synthesis of candidate compounds. If we were unable to access the same technologies at an acceptable price, our business could be adversely affected.

**IF OUR COMPETITORS BRING SUPERIOR PRODUCTS TO MARKET OR BRING THEIR PRODUCTS TO MARKET BEFORE WE DO, WE MAY BE UNABLE TO FIND A MARKET FOR OUR PRODUCTS.**

Our products in development may not be able to compete effectively with products which are currently on the market or new products that may be developed by others. There are many other companies developing products for the same indications that we are pursuing in development. For example, we know of at least 15 drugs in development for HIV, five drugs in development for the treatment of hepatitis C infection, and 25 drugs in development for the treatment of rheumatoid arthritis or psoriasis, by competitors in the pharmaceutical and biotechnology industries. In order to compete successfully in these areas, we must demonstrate improved safety, efficacy and ease of manufacturing and gain market acceptance over competing products which have received regulatory approval and are currently marketed. Many of our competitors, including major pharmaceutical companies such as GlaxoSmithKline, Novartis, Abbott and Merck, have substantially greater financial, technical and human resources than we do. In addition, many of our competitors have significantly greater experience than we do in conducting preclinical testing and human clinical trials of new pharmaceutical products, and in obtaining FDA and other regulatory approvals of products. Accordingly, our competitors may succeed in obtaining regulatory approval for products more rapidly than we do. If we obtain regulatory approval and launch commercial sales of our products, we will also compete with respect to manufacturing efficiency and sales and marketing capabilities, areas in which we currently have limited experience.

**THE LOSS OF THE SERVICES OF KEY EMPLOYEES OR THE FAILURE TO HIRE QUALIFIED EMPLOYEES WOULD NEGATIVELY IMPACT OUR BUSINESS AND FUTURE GROWTH.**

Because our products are highly technical in nature, we require the services of highly qualified and trained scientists who have the necessary skills to develop our products. Our future success will depend in large part on the continued services of our key scientific and management personnel, including Dr. Joshua Boger, our Chief Executive Officer, and Dr. Vicki L. Sato, our President. While we have entered into employment agreements with Dr. Boger and Dr. Sato, they provide for termination by the employee upon six months' notice.

We face intense competition for our scientific personnel from our competitors, our collaborative partners and other companies throughout our industry. Moreover, the growth of local biotechnology companies and the expansion of major pharmaceutical companies into the Cambridge, MA area has increased competition for the available pool of skilled employees, especially in technical fields, and the high cost of living in the Boston and San Diego areas makes it difficult to attract employees from other parts of the country. A failure to retain, as well as hire, train and effectively integrate into our organization, a sufficient number of qualified scientists and professionals would negatively impact our business and our ability to grow our business. In addition, the level of funding under certain of our collaborative agreements, in particular the Novartis collaboration, depends on the number of our scientists performing research under those agreements. If we cannot hire and retain the required personnel, funding received under the agreements may be reduced.

**IF WE FAIL TO MANAGE OUR GROWTH EFFECTIVELY, OUR BUSINESS MAY SUFFER.**

We expect that if our clinical candidates continue to progress in development, we continue to build our commercial organization and our drug discovery efforts continue to generate drug candidates, we will require significant additional investment in personnel, management systems and resources. Our ability to commercialize our products, achieve our research and development objectives, and satisfy our commitments under our collaboration agreements depends on our ability to respond effectively to these demands and expand our internal organization to accommodate additional anticipated growth. If we are unable to manage our growth effectively, there could be a material adverse effect on our business.

**WE DEPEND ON THIRD PARTY MANUFACTURERS, AND IF WE ARE UNABLE TO OBTAIN CONTRACT MANUFACTURING ON REASONABLE TERMS, WE MAY NOT BE ABLE TO DEVELOP OR COMMERCIALIZE OUR PRODUCTS.**

Our ability to conduct clinical trials and our ability to commercialize our potential products will depend, in part, on our ability to manufacture our products on a large scale, either directly or through third parties, at a competitive cost and in accordance with FDA and other regulatory requirements. We have no experience in manufacturing pharmaceuticals or other products, and we may not be able to develop such capabilities in the foreseeable future. In addition, some of our current corporate partners have manufacturing rights with respect to our products under development. We are, therefore, dependent on third party manufacturers and our collaborative partners for the production of our compounds for preclinical research, clinical trial purposes and commercial production. Accordingly, if we are not able to obtain contract manufacturing from these third parties on commercially reasonable terms, we may not be able to conduct or complete clinical trials or commercialize our products as planned. Further, commercial formulation and manufacturing processes have yet to be developed for our drug candidates other than Agenerase and 908. As a result, our collaborators or we may encounter difficulties developing commercial formulations and manufacturing processes for our drug candidates that could result in delays in clinical trials, regulatory submissions, regulatory approvals and commercialization of our products.

**IF OUR PATENTS DO NOT PROTECT OUR PRODUCTS, OR OUR PRODUCTS INFRINGE THIRD-PARTY PATENTS, WE COULD BE SUBJECT TO LITIGATION AND SUBSTANTIAL LIABILITIES.**

As of December 31, 2002, we had 204 patent applications pending in the United States, as well as foreign counterparts in other countries. Our success will depend, in significant part, on our ability to obtain and maintain United States and foreign patent protection for our products, their uses and our processes to preserve our trade secrets and to operate without infringing the proprietary rights of third parties. We do not know whether any patents will issue from any of our patent applications or, even if patents issue or have issued, that the issued claims will provide us 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 law or policy regarding the valid breadth of claims in biopharmaceutical patents or the effect of prior art on them. If we are not able to obtain adequate patent protection, our ability to prevent competitors from making, using and selling competing products will be limited. Furthermore, our activities may infringe the claims of patents held by third parties. We are currently contesting a suit filed by Chiron Corporation claiming infringement of three U.S. patents issued to Chiron, and a suit filed by Oregon Health Sciences University claiming part ownership of four of our neurophilin patents. Although we believe that the ultimate outcome of these actions will not have a material impact on our consolidated financial position, defense and prosecution of claims such as those at issue in the Chiron and Oregon Health Sciences University cases, as well as participation in other inter-party proceedings, can be expensive and time-consuming, even in those instances in which the outcome is favorable to us. If the outcome of any such litigation or proceeding were adverse, we 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 affected products, any of which could have a material adverse effect on our consolidated financial position.

**WE EXPECT TO INCUR FUTURE LOSSES AND WE MAY NEVER BECOME PROFITABLE.**

We have incurred significant operating losses each year since our inception and expect to incur a significant operating loss in 2003. We believe that operating losses will continue beyond 2003, even if we receive significant future payments under our existing and future collaborative agreements and royalties on Agenerase and 908 sales, because we are planning to make significant investments in research and development, and will incur significant selling, general, and administrative expenses for our potential products. We expect that losses will fluctuate from quarter to quarter and year to year, and that such fluctuations may be substantial. We may never achieve or sustain profitability.

**WE MAY NEED TO RAISE ADDITIONAL CAPITAL THAT MAY NOT BE AVAILABLE.**

We expect to incur substantial research and development and related supporting expenses as we design and develop existing and future compounds and undertake clinical trials of potential drugs resulting from such compounds. We also expect 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. We anticipate that we will finance these substantial cash needs with:

- cash received from our existing collaborative agreements;
- cash received from new collaborative agreements;
- Agenerase and 908 royalty revenue;
- existing cash reserves, together with interest earned on those reserves;
- facilities and equipment financing;
- disposition of assets that are not essential to our core pharmaceutical business; and
- future product sales to the extent that we market products directly.

We expect that funds from these sources will be sufficient to fund our planned activities for at least the next 18 months. If not, it will be necessary to raise additional funds through public offerings or private placements of equity or debt securities or other methods of financing. Any equity financings could result in dilution to our then-existing securityholders. Any debt financing, if available at all, may be on terms which, among other things, restrict our ability to pay dividends and interest (although we do not intend to pay dividends for the foreseeable future). The required interest payments associated with any significant additional debt financing could materially adversely impact our ability to service our convertible subordinated notes. The terms of any additional debt financing may also, under certain circumstances, restrict or prohibit us from making interest payments on our convertible subordinated notes. If adequate funds are not available, we may be required to curtail significantly or discontinue one or more of our research, drug discovery or development programs, including clinical trials, or attempt to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies or products in research or development. Additional financing may not be available on acceptable terms, if at all.

#### **OUR SALES AND MARKETING EXPERIENCE IS CURRENTLY LIMITED.**

We have little experience in marketing and selling pharmaceutical products. We must either develop a marketing and sales force or enter into arrangements with third parties to market and sell any of our product candidates which are approved by the FDA. We do not know whether we will be able to enter into marketing and sales agreements with others on acceptable terms, if at all. Based on clinical activities planned or underway for 2003, we expect to initially select two drug candidates from our portfolio by the end of the year, for further clinical development and commercial launch in the U.S. We may not be able to successfully develop our own sales and marketing force for these drug candidates and other drug candidates for which we have retained marketing or co-promotion rights. If we develop our own marketing and sales capability, we may be competing with other companies that currently have experienced and well-funded marketing and sales operations. We have granted exclusive marketing rights for Agenerase and 908 to GlaxoSmithKline worldwide except the Far East, and for pralnacasan to Aventis worldwide. Kissei has exclusive marketing rights to Agenerase and VX-702 in Japan. Even though we retain some co-promotion rights, to the extent that our collaborative partners have commercial rights to our products, any revenues we receive from those products will depend primarily on the sales and marketing efforts of others.

#### **IF WE INCUR PRODUCT LIABILITY EXPENSES, OUR EARNINGS COULD BE NEGATIVELY IMPACTED.**

Our business will expose us to potential product liability risks that arise from the testing, manufacturing and sales of our products. In addition to direct expenditures for damages, settlement and defense costs, there is the possibility of adverse publicity as a result of product liability claims. These risks will increase as our products receive regulatory approval and are commercialized. We currently carry \$15 million (aggregate) of product liability insurance. This level of insurance may not be sufficient. Moreover, we may not be able to maintain our existing levels of insurance or be able to obtain or maintain additional insurance that we may need in the future on acceptable terms.

In addition, our research and development activities may from time to time involve the controlled use of hazardous materials, including hazardous chemicals and radioactive materials. Accordingly, we are subject to federal, state and local laws governing the use, handling and disposal of these materials. Although we believe that our safety procedures for handling and disposing of hazardous materials comply with regulatory requirements, we cannot completely eliminate the risk that accidental contamination or injury from these materials could expose us to significant liability.

**WE HAVE ADOPTED ANTI-TAKEOVER PROVISIONS THAT MAY FRUSTRATE ANY ATTEMPT TO REMOVE OR REPLACE OUR CURRENT MANAGEMENT.**

Our corporate charter and by-law provisions and stockholder rights plan may discourage certain types of transactions involving an actual or potential change of control of Vertex which might be beneficial to the company or its securityholders. Our charter provides for staggered terms for the members of the Board of Directors. Our 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 our stockholder rights plan, each share of common stock has an associated preferred share purchase 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. We may issue shares of any class or series of preferred stock in the future without stockholder approval and upon such terms as our 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. As a result, shareholders or other parties may find it more difficult to remove or replace our current management.

**OUR STOCK PRICE MAY FLUCTUATE BASED ON FACTORS BEYOND OUR CONTROL.**

Market prices for securities of companies such as Vertex are highly volatile. Within the 12 months ended December 31, 2002, our common stock traded between \$32.45 and \$12.67. The market for our stock, like that of other companies in the biotechnology field, has from time to time experienced significant price and volume fluctuations that are unrelated to our operating performance. The future market price of our securities could be significantly and adversely affected by factors such as:

- announcements of results of clinical trials;
- announcements of financial results and other operating performance measures, or capital structuring activities;
- technological innovations or the introduction of new products by our competitors;
- government regulatory action;
- public concern as to the safety of products developed by others;
- developments in patent or other intellectual property rights or announcements relating to these matters;
- developments in domestic and international governmental policy or regulation, for example relating to intellectual property rights; and
- developments and market conditions for pharmaceutical and biotechnology stocks, in general.

**OUR OUTSTANDING INDEBTEDNESS MAY MAKE IT MORE DIFFICULT TO OBTAIN ADDITIONAL FINANCING.**

As of December 31, 2002, we had approximately \$326 million in long-term debt, including \$315 million of 5% Convertible Subordinated Notes due September 2007. The high level of our indebtedness will impact us by:

- exposing us to a fixed rate of interest which may be in excess of prevailing market rates;
- making it more difficult to obtain additional financing for working capital, capital expenditures, debt service requirements or other

purposes; and

- constraining our ability to react quickly in an unfavorable economic climate.



## ITEM 2. PROPERTIES

We lease an aggregate of approximately 624,000 square feet of laboratory and office space in eight facilities in Cambridge, Massachusetts. The leases have expiration dates ranging from 2003 to 2017. We have the option to extend the lease for our headquarters facility at 130 Waverly Street, Cambridge, for up to two additional terms, ending in 2015 with respect to one portion of the building, and in 2019 for the other portion of the building. The lease for the laboratory and office building adjacent to our headquarters will expire in 2010 with the option to extend the lease for up to two additional consecutive ten year terms. The lease for our Kendall Square building will expire in 2017, with the option to extend the lease for two consecutive terms of 10years each. The building is currently under construction and we are obligated to build out finished space to specifications approved by our landlord. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Commitments" at page56 for further discussion of our Kendall Square building.

We also lease approximately 81,200 square feet of laboratory and office space in San Diego, California. The lease for this space will expire on August31, 2008, with an option to extend for up to two additional terms of 5years each. We also sublease an additional 12,500 square feet of space for our administrative functions in a nearby facility. The sublease for this additional space will expire on March31, 2004, subject to a six-month extension of the sublease upon the mutual agreement of the parties. We also sublease an additional 21,200 square feet of laboratory, office and equipment manufacturing space under a sublease that will expire May31, 2004.

We lease approximately 22,000 square feet of laboratory and office space in Milton Park, Abingdon, England, under a lease expiring in 2013, with a right of early termination in 2008, for our U.K. business and research and development activities.

In addition, at December 31, 2002 we owned the building in Madison, Wisconsin housing PanVeraLLC's operations. That building was transferred to the buyer in connection with our sale of certain assets of PanVera LLC on March28, 2002.

We believe our facilities are adequate for our current needs. We believe we can obtain additional space on commercially reasonable terms.

## ITEM 3. LEGAL PROCEEDINGS

Chiron Corporation filed suit on July30, 1998 against Vertex and Eli Lilly in the United States District Court for the Northern District of California, alleging infringement by the defendants of three U.S. patents issued to Chiron. The infringement action relates to research activities by Vertex and Eli Lilly in the hepatitis C viral protease field and the alleged use of inventions claimed by Chiron in connection with that research. Chiron has requested damages in an unspecified amount, as well as an order permanently enjoining Vertex and Eli Lilly from unlicensed use of the claimed Chiron inventions. During 1999, Chiron requested and was granted a reexamination by the U.S. Patent and Trademark Office of all three of the patents involved in the suit. Chiron also requested and, over the opposition of Vertex and Eli Lilly, was granted a stay in the infringement lawsuit, pending the outcome of the patent reexamination. The reexamination process is still ongoing and the stay is still in effect. However, a Reexamination Certificate has been issued with respect to two of the three Chiron patents involved and a Notice of Intent to Issue a Reexamination Certificate has been issued with respect to the third patent. While the length of the stay and the final outcome of the lawsuit cannot be determined, we maintain that Chiron's claims are without merit, and we intend to defend the lawsuit, if and when it resumes, vigorously.

On December7, 2001, Oregon Health Sciences University filed suit against Vertex in the District Court of Oregon. The complaint in the suit seeks to name Dr.Bruce Gold, an employee of Oregon Health Sciences University, as an inventor and Oregon Health Sciences University as part owner of five of Vertex's neurophilin patents, and associated damages. One of the five patents was recently removed from the suit on a motion by Vertex. The suit stems from assays run on Vertex compounds by Dr.Gold

under a sponsored research agreement in 1996. We have investigated the inventorship on these patents and believe that Dr. Gold is not an inventor, Oregon Health Sciences University has no ownership interest in any of these patents, and that the claims made in this complaint are without merit. We intend to contest this suit vigorously.

The Company is not a party to any litigation in any court with, and management is not aware of any contemplated proceeding by, any governmental authority against the Company.

#### **ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

There were no matters submitted to a vote of security holders during the fourth quarter of the fiscal year ended December 31, 2002.

### **PART II**

#### **ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS**

##### **Market Information**

Our common stock trades on the Nasdaq Stock Market (Nasdaq) under the symbol "VRTX." The following table sets forth for the periods indicated the high and low sale prices per share of the common stock as reported by Nasdaq:

| <b>Year Ended December 31, 2001:</b> | <b>High</b> | <b>Low</b> |
|--------------------------------------|-------------|------------|
| First quarter                        | \$ 75.17    | \$ 25.63   |
| Second quarter                       | 52.25       | 29.75      |
| Third quarter                        | 49.38       | 15.50      |
| Fourth quarter                       | 28.84       | 16.74      |
| <b>Year Ended December 31, 2002:</b> |             |            |
| First quarter                        | \$ 29.92    | \$ 17.78   |
| Second quarter                       | 32.45       | 15.02      |
| Third quarter                        | 23.96       | 12.67      |
| Fourth quarter                       | 21.60       | 15.34      |

##### **Stockholders**

As of March 26, 2003, there were 328 holders of record of the common stock (approximately 23,000 beneficial holders).

##### **Dividends**

We have never declared or paid any cash dividends on our common stock, and we currently expect that future earnings, if any, will be retained for use in our business.

## ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA (Unaudited)

The following unaudited selected financial data for each of the five years in the period ended December 31, 2002 are derived from our audited consolidated financial statements. This data should be read in conjunction with our audited consolidated financial statements and related notes which are included elsewhere in this Annual Report on Form 10-K, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 below.

|   | Year Ended December 31, |              |              |              |              |
|---|-------------------------|--------------|--------------|--------------|--------------|
|   | 2002                    | 2001(1)      | 2000(2)      | 1999         | 1998         |
| (In thousands, except per share amounts)  |                         |              |              |              |              |
| <b>Consolidated Statement of Operations Data:</b>   |                         |              |              |              |              |
| Pharmaceutical revenues:  |                         |              |              |              |              |
| Royalties   | \$ 10,209               | \$ 11,119    | \$ 12,361    | \$ 8,398     | \$ —         |
| Collaborative R&D revenues  | 77,135                  | 68,984       | 68,239       | 43,370       | 29,145       |
| Discovery tools and services revenues:  |                         |              |              |              |              |
| Product sales and royalties   | 51,772                  | 59,921       | 52,437       | 44,208       | 26,240       |
| Service revenues  | 21,969                  | 27,466       | 20,245       | 12,911       | 7,181        |
| Total revenue   | 161,085                 | 167,490      | 153,282      | 108,887      | 62,566       |
| Costs and expenses:   |                         |              |              |              |              |
| Royalty payments  | 3,434                   | 3,786        | 4,134        | 3,108        | —            |
| Cost of product sales and royalties   | 13,684                  | 27,089       | 33,502       | 27,236       | 24,093       |
| Cost of service revenues  | 11,163                  | 12,544       | 9,294        | 4,237        | 3,017        |
| Research and development  | 203,018                 | 150,173      | 102,441      | 85,029       | 76,872       |
| Sales, general and administrative   | 49,390                  | 42,047       | 41,354       | 40,918       | 26,235       |
| Merger related costs  | —                       | 23,654       | —            | —            | —            |
| Total costs and expenses  | 280,689                 | 259,293      | 190,725      | 160,528      | 130,217      |
| Loss from operations  | (119,604 )              | (91,803 )    | (37,443 )    | (51,641 )    | (67,651 )    |
| Other income, net   | 10,983                  | 23,382       | 20,239       | 10,487       | 16,644       |
| Debt conversion expense   | —                       | —            | (14,375 )    | —            | —            |
| Gain on retirement of convertible subordinated notes  | —                       | 10,340       | —            | —            | —            |
| Loss before cumulative effects of changes in accounting principles  | (108,621 )              | (58,081 )    | (31,579 )    | (41,154 )    | (51,007 )    |
| Cumulative effect of change in accounting principle — revenue recognition   | —                       | (25,901 )    | (3,161 )     | —            | —            |
| Cumulative effect of change in accounting principle — derivatives(3)  | —                       | 17,749       | —            | —            | —            |
| Net loss  | \$ (108,621 )           | \$ (66,233 ) | \$ (34,740 ) | \$ (41,154 ) | \$ (51,007 ) |
| Basic and diluted net loss per common share   | \$ (1.43 )              | \$ (0.89 )   | \$ (0.51 )   | \$ (0.66 )   | \$ (0.83 )   |
| Basic and diluted weighted average number of common shares outstanding  | 75,749                  | 74,464       | 67,682       | 62,602       | 61,741       |
| <b>Pro forma amounts assuming the 2001 accounting change relating to revenue recognition is applied retroactively (1)</b> |                         |              |              |              |              |
| Net loss  | \$ (108,621 )           | \$ (40,332 ) | \$ (45,860 ) | \$ (38,234 ) | \$ (56,758 ) |
| Net loss per weighted common share—basic and diluted  | \$ (1.43 )              | \$ (0.54 )   | \$ (0.68 )   | \$ (0.61 )   | \$ (0.92 )   |

|   | December 31, |            |            |            |            |
|---|--------------|------------|------------|------------|------------|
|   | 2002         | 2001       | 2000       | 1999       | 1998       |
| <b>Consolidated Balance Sheet Data:</b>                                       |              |            |            |            |            |
| Cash, cash equivalents and marketable securities                              | \$ 634,984   | \$ 743,202 | \$ 814,061 | \$ 224,955 | \$ 274,638 |
| Total assets  | 815,720      | 925,131    | 941,136    | 307,338    | 321,521    |
| Obligations under capital lease, loan and notes payable, less current portion | 325,944      | 323,026    | 357,269    | 16,003     | 12,484     |
| Accumulated deficit   | (423,153 )   | (314,532 ) | (248,299 ) | (213,164 ) | (172,009 ) |
| Total stockholders' equity  | 378,581      | 475,351    | 514,011    | 251,917    | 286,056    |

(1)

During 2001 we implemented a change in accounting principle relating to revenue recognition that was retroactive to January 1, 2001. For further information please refer to Note C: "Change in Accounting Principle—Revenue Recognition" in the notes to our consolidated financial statements and our Management's Discussion and Analysis of Financial Condition and Results of Operations.

(2)

In the fourth quarter of 2000, we changed our method of accounting for revenue recognition in conjunction with our adoption of the SEC's Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" which was retroactive to January 1, 2000. Please refer to Note C: "Change in Accounting Principle—Revenue Recognition" in the notes to our consolidated financial statements for

further information.

(3)

During 2001, we recorded a cumulative effect of change in accounting principle related to the adoption of Derivative Implementation Group Issue No.A17 ("DIG A17") in connection with the valuation of derivative instruments. Please refer to NoteH: "Investments" in the notes to our consolidated financial statements for further information.

(4)

On July 18, 2001, we completed a merger with Aurora Biosciences Corporation. The merger was accounted for as a pooling of interests. All prior period consolidated financial statements presented have been restated to include the consolidated results of operations, financial position and cash flows of Aurora Biosciences Corporation as though the merger had been in effect on the dates indicated. Please refer to NoteD: "Business Combinations" in the notes to our consolidated financial statements for further information.

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### Overview

We are a global biotechnology company with employees located in Cambridge, MA, San Diego, CA and Abingdon, UK. During 2002 we had two operating segments: Pharmaceuticals and Discovery Tools and Services. See Note T: "Segment Information" in the notes to our consolidated financial statements for financial information regarding our operating segments.

Our Pharmaceuticals business seeks to discover, develop, and commercialize major pharmaceutical products independently and with collaborators. Our proprietary, systematic, genomics-based discovery platform is designed to accelerate the discovery of new drugs and to expand intellectual property coverage of drug candidate compounds and classes of related compounds. We believe this approach, which targets gene families, has formed the basis for successful drug discovery and for the advancement of drug candidates by Vertex and its collaborators.

Our first approved product is Agenerase (amprenavir), an HIV protease inhibitor, which we co-promote with GlaxoSmithKline. We earn a royalty from GlaxoSmithKline on sales of Agenerase. Agenerase is marketed worldwide. In Japan the drug is sold under the trade name Prozei. We have one drug candidate, 908 (GW 433908 or VX-175), for which a New Drug Application (NDA) is pending with the U.S. FDA. We have a total of 15 drug candidates in clinical or pre-clinical development including drug candidates focused on infectious diseases, autoimmune and inflammatory diseases and cancer, as well as other drug candidates targeting neurological disorders and genetic disorders. We intend to independently develop and commercialize certain of our own products for high-value markets where we can effectively reach large patient populations with a sales force focused on specialists. At the same time, we are collaborating with partners to develop and market other Vertex-discovered products for selected major therapeutic areas. We have significant collaborations with major pharmaceutical companies including Novartis, Aventis, GlaxoSmithKline and Serono, to develop and commercialize drug candidates serving markets where we believe our partner can more effectively compete. In these collaborations, we have retained rights to downstream product revenue.

Our collaborations and contracts in the pharmaceuticals business provide us with financial support and other valuable resources for our research programs, development of our clinical drug candidates, and marketing and sales of our products. We believe that we are positioned to commercialize multiple products, both independently and with our partners, in the coming years, which we expect will generate increased milestone payments, royalty payments and product revenues.

Our Discovery Tools and Services business, part of which we operated through our subsidiary PanVera LLC, specializes in assay development, screening services, the development, manufacture and sale of instruments, and the manufacture and sale of proteins and reagents. This business had contracts in place that required the delivery of products, licenses and services throughout 2002 and early 2003.

On February 4, 2003, Vertex and PanVera LLC signed a definitive agreement under which Invitrogen Corporation agreed to purchase for approximately \$95 million in cash certain PanVera LLC assets, including its biochemical and cellular assay capabilities and its commercial portfolio of proprietary reagents, probes and proteins. The buyer also assumed certain liabilities of PanVera LLC. The sale does not include the instrumentation assets of the Discovery Tools and Services Business. This sale of assets was completed on March 28, 2003. In connection with the PanVera LLC asset sale, we have agreed with Invitrogen that we may use in our drug discovery activities, but will not engage for a term of five years in the business of providing, reagents, probes, or assay development services. We will also purchase a minimum of \$3 million of products annually from Invitrogen for three years after completion of the asset sale.

On July 18, 2001, we completed a merger with Aurora Biosciences Corporation. The merger united Aurora's industry-leading cell biology capabilities with Vertex's integrated drug discovery expertise,

creating a comprehensive, scalable platform for systematically accelerating drug candidate output in target-rich gene families. We acquired all of Aurora's outstanding common stock in a tax-free, stock for stock transaction, for approximately 14.1million shares of Vertex common stock. Aurora's outstanding options were converted into options to purchase 2.6million shares of Vertex common stock. The merger was accounted for as a pooling of interests.

On March1, 2001, Aurora completed a merger with PanVera Corporation. Aurora acquired all of PanVera Corporation's outstanding common stock in a tax-free, stock for stock transaction. The merger was accounted for as a pooling of interests. All references to "Aurora" refer to the combined company of Aurora and PanVera Corporation.

All prior period consolidated financial statements presented have been restated to include the consolidated results of operations, financial position and cash flows of Aurora as though the merger had been in effect on the dates indicated.

We consider our collaborations with Novartis, GlaxoSmithKline, Aventis and Serono to be material to our business. Novartis has agreed to pay us up to approximately \$600million in pre-commercial payments, comprised of a \$15million up-front payment made upon the signing of the agreement in May2000, up to \$200million in product research funding over six years and up to approximately \$400million in further license fees, milestone payments and cost reimbursements. These amounts are based on the successful development of eight drug candidates. We have the responsibility for drug discovery and clinical proof-of-concept testing for all drug candidates. Under our agreement, Novartis has created a \$200million loan facility to support our clinical studies, which we may draw down in increments of up to \$25million for each drug candidate. The loans are interest free and Novartis will forgive the full amount of any advances if Novartis accepts the drug candidate for development under our agreement. During 2002 we drew down \$5million against the loan facility to support our early development efforts related to a particular drug candidate. Additionally, we will receive royalties on any products marketed as a part of the collaboration. Subject to certain conditions, we will have co-promotion rights in the U.S. and Europe. Upon one year's written notice, Novartis may terminate this agreement without cause, effective no earlier than May,2004.

We are engaged in a collaborative agreement with GlaxoSmithKline (GSK) to develop and commercialize HIV protease inhibitors, including Agenerase (amprenavir), its prodrug 908, and VX-385. Under our agreement, GSK agreed to pay the Company up to \$42million comprised of an up-front license payment, product research funding over five years, and development and commercialization milestone payments for an initial drug candidate. We have received the entire \$42million and in 1999 began receiving royalties on sales of Agenerase. GSK is also obligated to pay additional development and commercialization milestone payments for subsequent drug candidates, including 908. In the fourth quarter of 2002 we received a milestone payment of \$1.5million for the submission of a new drug application for market approval of 908 in the US and European Union. GSK is required to bear the costs of development in its territory of drug candidates under the collaboration and 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. We have retained certain bulk drug manufacturing rights and certain co-promotion rights in territories licensed to GSK. GSK has the right to terminate its arrangement without cause upon twelve months' notice. Termination of the agreement by GSK will relieve it of its obligation to make further commercialization and development milestone and royalty payments and will end any license granted to GSK by Vertex under the agreement.

Aventis has paid us \$20million up-front for prior research costs associated with pralnacasan (VX-740) and has agreed to pay us up to \$62million in milestone payments for successful development by Aventis of pralnacasan in rheumatoid arthritis, the first targeted indication. Milestone payments are also due for each additional indication under development. Aventis initiated a PhaseIIa study for an additional indication, osteoarthritis, in January 2003. We have granted Aventis an exclusive worldwide license to develop, manufacture and market pralnacasan, as well as an exclusive option for certain other compounds discovered as part of the research collaboration between Vertex and Aventis that

ended in 1997. We will receive royalties on product sales and reimbursement of certain co-promotion expenses. Aventis has the right to terminate this agreement without cause upon six months notice.

Serono has agreed to pay us up to \$95million in pre-commercial payments in conjunction with the December 2000 agreement to collaborate on the discovery, development, and commercialization of caspase inhibitors. The \$95million in pre-commercial payments is comprised of \$5million in up-front payments for prior research, up to \$20million in product research funding over five years and up to \$70million in further license fees and milestone payments for the successful development and commercialization of one or more drug candidates. We will share development costs. We have the option to establish a joint venture for the commercialization of products in North America, where we will share marketing rights and profits from the sale of drug products. Serono will have exclusive rights to market caspase inhibitors in other territories, excluding Japan and certain other countries in the Far East, and will pay us for supplies of drug substance. Serono has the right to terminate the agreement without cause upon 90days' written notice, effective September30, 2004.

## **2003 Financial Guidance**

On February4, 2003 we provided financial guidance for 2003 which we believed reflected the stage of development of our business, research and development opportunities, our infrastructure needs and our capital structure and liquidity profile. The key financial metrics on which we provided guidance are as follows:

- Pharmaceutical collaborative and royalty revenues are expected to be between \$90million and \$105million, including \$65million from existing collaborations, \$10million from royalty arrangements and between \$15million and \$30million from new collaborations.
- Discovery Tools and Services revenues will be less than \$10million, reflecting the PanVera LLC asset sale closed on March28, 2003.
- As we advance the development of Vertex-driven drug candidates and continue to invest in drug discovery, we project that research and development costs will be between \$215million and \$230million for the full year. This compares to 2002 research and development expense of \$203million. This increase in expense is due to increased investment in the development of Vertex-driven drug candidates, while maintaining an investment in research consistent with 2002.
- We expect sales, general and administrative expenses to be between \$38million and \$43million for the full year.
- The full year 2003 net loss is expected to be between \$140million and \$160million, excluding gain from the close of the sale of certain net assets of PanVera LLC, which we expect to be in excess of \$75million. The 2003 net loss range is expected to be consistent with the 2002 net loss from the Pharmaceuticals segment of our business.
- We expect cash, cash equivalents and available for sale securities to be in excess of \$600million at the end of 2003.

We have incurred operating losses since our inception and expect to incur losses for the foreseeable future. We plan to make significant investments in research and development for our drug candidates. We also expect that losses will fluctuate from year to year and that such fluctuations may be substantial. The results set forth above are subject to risks and uncertainties that could cause our actual results to vary materially, as referenced in the section below entitled "Forward-Looking Statements."

## **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements that have been prepared in accordance with generally accepted accounting principles in the United States of America. The preparation of these financial statements requires us to make certain estimates and assumptions that affect the reported amounts of assets and

liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expense during the reported periods. These items are constantly monitored and analyzed by management for changes in facts and circumstances, and material changes in these estimates could occur in the future. Changes in estimates are recorded in the period in which they become known. We base our estimates on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from our estimates if past experience or other assumptions do not turn out to be substantially accurate.

In December 2001, the SEC requested that all registrants discuss their "critical accounting policies" in the section of their periodic reports entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations." A critical accounting policy is a policy that is both important to the portrayal of the company's financial condition and results, and requires management's most difficult, subjective or complex judgments and estimates. While our significant accounting policies are more fully described in NoteB to our consolidated financial statements included in this Annual Report on Form10-K, we consider our revenue recognition and research and development policies critical and therefore we separately outline these policies below.

Our revenue recognition policies are in accordance with the SEC's Staff Accounting Bulletin No.101 (SAB 101), "Revenue Recognition in Financial Statements." Our Pharmaceuticals business generates revenue mainly from collaborative research and development agreements and royalty agreements, while our Discovery Tools and Services business generates revenue mainly from product sales, assay development and screening services. Following the sale of the PanVera assets we expect our near term revenue to be generated mainly from our Pharmaceuticals business.

Our collaborative research and development revenue is primarily generated through collaborative research and development agreements with strategic partners for the development of small molecule drugs that address major unmet medical needs. The terms of the agreements typically include non-refundable up-front license fees, funding of research and development efforts, payments based upon achievement of certain at-risk and substantive milestones and royalties on product sales.

Under the Substantive Milestone Method, adopted retroactively to January 1, 2001, we recognize revenue from non-refundable, up-front license fees and milestones, not specifically tied to a separate earnings process, ratably over the contracted or estimated period of performance. Changes in estimates could impact revenue in the period the estimate is changed. If our estimate of the period of performance shortens or lengthens, the amount of revenue we recognize from non-refundable, up-front license fees and milestones, not specifically tied to a separate earnings process, could increase or decrease in the period the change in estimate becomes known; future related revenues would be adjusted accordingly. Research funding is recognized as earned, ratably over the period of effort. Milestones that are based on designated achievement points and that are considered at risk and substantive at the inception of the collaborative contract, are recognized as earned, when the corresponding payment is considered reasonably assured. We evaluate whether milestones are at risk and substantive based on the contingent nature of the milestone, specifically reviewing factors such as the technological and commercial risk that must be overcome and the level of investment required.

Royalty revenue is recognized based upon actual and estimated net sales of licensed products in licensed territories, as provided by our collaborative partner, and is recognized in the period the sales occur. Differences between actual royalty revenues and estimated royalty revenues, which have not been historically significant, are reconciled and adjusted for in the quarter they become known.

Product sales include technology licensing, instrumentation system sales, and biotechnology product sales. Revenue from licenses involving continuing obligations on our part is recognized over the period of the license. Revenue from perpetual licenses is recognized when the license is issued, provided that there are no significant continuing obligations and the payment is non-refundable and non-creditable.

Revenue from biotechnology products and certain instrumentation system sales, is recognized upon shipment, when the title to the product and associated risk of loss has passed to the customer,



collectibility is reasonably assured and, if applicable, upon acceptance when acceptance criteria are specified, or upon expiration of the acceptance period. Sales under long-term production contracts are recognized using percentage of completion accounting, based on actual costs incurred to date compared to total estimated costs to complete. Changes in estimates of costs to complete will impact revenue recognition under the percentage of completion accounting model in the period the change becomes known and all future periods would be adjusted accordingly. Funding for the development of prototype instrumentation systems was recognized ratably over the term of the related development agreements, which approximated costs incurred. Milestones related to delivery of the components of the prototype systems were recognized when earned, as evidenced by written acknowledgement of acceptance from the customer.

Service revenues include assay development, screening services and contracted product development. Service revenue is recognized as the services are performed or ratably over the service period if we believe such method will approximate the expense being incurred. Revenue from upfront fees is deferred and recognized over the service period. Changes in the length of the service period could impact revenue in the period the change in the estimate of the service period becomes known and related future period revenues would be adjusted accordingly.

Certain contracts of our Discovery Tools and Services business contain obligations to sell instrumentation systems and technology licenses in addition to providing assay development and screening services. Each of these separable elements may be individually delivered and is not considered essential to the functionality of the others. We allocate revenue under such contracts to each of the separable elements based on the relative fair value of each element, which under most of our agreements approximates the stated price in the contract.

All research and development costs, including amounts funded in research collaborations, are expensed as incurred. Research and development expenses are comprised of costs incurred in performing research and development activities including salaries and benefits, facilities costs, overhead costs, clinical trial costs, contract services and other outside costs.

## **Results of Operations**

In the third quarter of 2001, in connection with our overall review of accounting policies concurrent with our merger with Aurora, we elected to change our revenue recognition policy for collaborative research and development revenues from the Emerging Issues Task Force No.91-6 (EITF 91-6) method to the Substantive Milestone Method, adopted retroactive to January 1, 2001. We believe this method is preferable because it is reflective of the Company's on-going business operations and is more consistent with the industry practices following the prior year implementation of SAB 101 throughout the biotechnology industry.

Pursuant to the 2001 change, we recorded a one-time, non-cash charge of \$25,901,000, representing a cumulative change in accounting principle for periods prior to 2001. The amount of revenue recognized in 2002 and 2001 which was included in the one-time, non-cash charge was \$6,979,000 and \$7,748,000.

Additionally, \$2,809,000, \$2,580,000 and \$5,785,000 will be recognized as revenue in 2003, 2004 and thereafter, respectively, which was included in the January 2001 charge to income.

Prior to our change of revenue recognition to the Substantive Milestone Method, in the fourth quarter of 2000 we changed our method of accounting for revenue recognition for collaborative research and development revenues to the EITF 91-6 method in conjunction with our adoption of SAB 101. Under the EITF 91-6 method, adopted retroactive to January 1, 2000, we recognized revenue from research and development arrangements, including non-refundable upfront license fees, milestones and research and development funding, over the period of our continuing involvement using the lesser of the non-refundable cash received or the result achieved using percentage of completion accounting. Where we had no continuing involvement, non-refundable license fees were recorded as revenue upon

receipt and milestones were recorded as revenue upon achievement of the milestone by the collaborative partner.

Pursuant to the adoption of SAB101 and the EITF91-6 method in 2000, we recorded a one-time, non-cash charge of \$3,161,000, representing a cumulative effect of a change in accounting principle for periods prior to 2000.

*Year Ended December31, 2002 Compared with Year Ended December31, 2001*

Our net loss for 2002 was \$108,621,000 or \$1.43 per basic and diluted common share, compared to a net loss for 2001 of \$66,233,000 or \$0.89 per basic and diluted common share. Our loss in 2001 includes the effect of changes in accounting principles related to revenue recognition, as discussed above, and the adoption of Derivative Implementation Group No.A17, of \$8,152,000, merger related expenses of \$23,654,000 and a gain of \$10,340,000 on the retirement of \$30,000,000 in principal of our convertible subordinated notes.

Total revenues decreased to \$161,085,000 in 2002 compared to \$167,490,000 in 2001. In 2002, Pharmaceuticals revenue, totaling \$87,344,000, was comprised of \$10,209,000 in royalties and \$77,135,000 in collaborative research and development revenue, as compared with \$80,103,000, comprised of \$11,119,000 in royalties and \$68,984,000 in collaborative research and development revenue in 2001. In 2002, Discovery Tools and Services revenue, totaling \$73,741,000, was comprised of \$51,772,000 in product sales and royalties and \$21,969,000 in service revenue, as compared with \$87,387,000, comprised of \$59,921,000 in product sales and royalties, and \$27,466,000 in service revenue in 2001.

Pharmaceuticals royalties consist primarily of Agenerase royalty revenue. Agenerase royalty revenue is based on actual and estimated worldwide net sales of Agenerase.

Collaborative research and development revenue consists of research support payments, development reimbursements, milestones and amortization of previously received up-front or license payments.

Collaborative research and development revenue increased in 2002 by 12% or \$8,151,000 as compared with 2001, due primarily to additional revenue earned under our Novartis collaboration. In 2002 we recognized \$41,894,000 of revenue under the Novartis collaboration compared with \$36,723,000 in 2001. We increased our effort related to the kinase research program under the Novartis collaboration in 2002. Revenue recognized under the HCV Protease program under the Eli Lilly (Lilly) contract was \$12,054,000 for the year ended December31, 2002 compared with \$6,686,000 for the year ended December31, 2001. In the fourth quarter of 2002, our research and development agreement with Lilly was restructured. The original contractual research term was to conclude in June2003. In connection with the restructuring of the agreement and termination of the research term, described more fully in NoteO in the notes to our consolidated financial statements included in this report, we recognized \$1,637,324 in revenue that had been previously deferred. That revenue related to the milestone paid in December2001 and the upfront payment received in June1997 at the commencement of the research and development collaboration. Additionally, in the fourth quarter of 2002 we received and recognized a milestone payment of \$1,500,000 from GlaxoSmithKline in connection with the submission of a new drug application for market approval of 908 in the US and the European Union. These increases in revenue were partially offset by a decrease in research funding of \$875,000 related to the conclusion of our collaboration with Taisho in the third quarter of 2002 as well as decreases in development reimbursement revenue earned under our collaboration with Kissei. We expect that collaborative research and development revenues will continue to be a significant source of our revenue. Our research programs with Taisho, Schering and Eli Lilly concluded during 2002. Therefore, research funding which we expect to receive from existing collaborators will be lower in 2003 as compared with 2002.

Product sales and royalties include instrumentation sales, technology licensing and biotechnology product sales.

Product sales and royalties decreased \$8,149,000, or 14%, to \$51,772,000 in 2002 from \$59,921,000 in 2001. The decrease in product sales in 2002 from 2001 is due primarily to a decrease in instrumentation revenue and biotechnology product revenue from our Discovery Tools and Services business. Instrumentation revenue decreased as the result of the completion of certain significant projects in late 2001 as well as a large equipment sale in late 2001 that was not repeated in 2002. Additionally, during late 2001 and throughout 2002 the Discovery Tools and Services business continued to shift its strategic focus away from instrumentation sales and towards technology licensing, assay development and the manufacture and sale of proteins, reagents and probes. The strategic shift of certain resources and technologies from our Discovery Tools and Services business to our Pharmaceuticals business has also impacted Discovery Tools and Services revenue. However, this shift contributed to the establishment of a fully integrated drug discovery operation focused on molecular targets, including the ion channels gene family.

Service revenue includes assay development, screening services and contracted product development.

Service revenue decreased to \$21,969,000 in 2002 from \$27,466,000 in 2001. The decrease is a result of the completion of several significant screening arrangements in late 2001 that were not replaced as a result of the shift in strategic focus of our business towards Pharmaceuticals.

We expect Discovery Tools and Services revenue to decrease in 2003 as a result of the sale of certain PanVera LLC assets to Invitrogen in the first quarter of 2003. See Note R: "Subsequent Event" for further information regarding the sale.

Pharmaceutical royalty costs of \$3,434,000 and \$3,786,000 in 2002 and 2001, respectively, consists of royalty payments on the sales of Agenerase.

Cost of product sales and royalties decreased \$13,405,000 or 49% to \$13,684,000 in 2002 from \$27,089,000 in 2001. The decrease in product and royalty costs is the result of the completion of certain projects that were not replaced in the current year. Additionally, the focus in our Discovery Tools and Services business toward technology licensing and discovery tools, which have higher gross margins, and away from instrumentation sales, with lower gross margins, contributed to a larger decrease in product costs from 2002 to 2001, as compared with the relative decrease in product sales from 2002 to 2001.

Cost of service revenue decreased from \$12,544,000 in 2001 to \$11,163,000 in 2002. The decrease is primarily due to decreased service revenue partially offset by higher overhead costs for the year ended December 31, 2002. The increased overhead is a result of a strategic shift in focus away from instrumentation in the Discovery Tools and Services business and a resulting reallocation of fixed overhead.

As a result of the sale of certain PanVera LLC assets to Invitrogen in the first quarter of 2003, we expect the cost of revenues related to Discovery Tools and Services revenue to decrease in 2003.

Research and development expenses increased to \$203,018,000 in 2002 from \$150,173,000 in 2001, primarily due to our continued investment in advancing our broad clinical pipeline and broadening our research efforts. Our clinical investment was focused primarily on the advancement of our second generation p38 MAP kinase, IMPDH, HCV protease and ICE inhibitors. We currently are concentrating on large market opportunities such as certain inflammatory, autoimmune and viral diseases. We continued to expand our multi-target gene family research programs, of which our kinases program is the most advanced, along with investments in target families such as ion channels and proteases. As a result of our continued expansion, personnel and facilities expenses also increased.

We have 15 drug candidates in development targeting a range of major diseases. Our collaborative partners have agreed to fund portions of our research and development programs and/or to conduct

certain research and development related to specified drug candidates. Our research and development expenses for 2002, 2001 and 2000 were as follows:

|                        | 2002       |             |            | 2001       |             |            | 2000      |             |            |
|------------------------|------------|-------------|------------|------------|-------------|------------|-----------|-------------|------------|
|                        | Research   | Development | Total      | Research   | Development | Total      | Research  | Development | Total      |
| Collaborator-Sponsored | \$ 54,509  | \$ 35,675   | \$ 90,184  | \$ 49,490  | \$ 20,262   | \$ 69,752  | \$ 43,253 | \$ 8,757    | \$ 52,010  |
| Company-Sponsored      | 70,577     | 42,257      | 112,834    | 51,612     | 28,809      | 80,421     | 31,856    | 18,575      | 50,431     |
| Total                  | \$ 125,086 | \$ 77,932   | \$ 203,018 | \$ 101,102 | \$ 49,071   | \$ 150,173 | \$ 75,109 | \$ 27,332   | \$ 102,441 |

To date we have incurred in excess of \$833,000,000 in research and development costs associated with drug discovery and development. We anticipate that research and development expenses will continue to increase as we add personnel and capabilities to support the advancement of Vertex-driven drug candidates. We do not expect a significant increase in research expenses without significant new funding from collaborations.

Sales, general and administrative expenses increased \$7,343,000, or 17%, to 49,390,000 in 2002 from \$42,047,000 in 2001. The increase is primarily attributable to increased personnel and professional expenses. Included in the increase in personnel and professional expenses is an increase in our legal and patent expenses in the period related to continued protection of our intellectual property and activities contesting a suit filed by Oregon Health Sciences University.

Merger related costs of \$23,654,000 in 2001 consisted of investment banking, legal and accounting fees associated with the acquisition of Aurora completed on July 18, 2001.

Interest income decreased approximately \$16,411,000 to \$28,722,000 in 2002 from \$45,133,000 in 2001. The decrease is a result of lower funds invested and lower portfolio yields due to a depressed interest rate environment.

Interest expense decreased to approximately \$17,684,000 in 2002 from \$19,318,000 in 2001. The decrease is a result of the reduction in principal amount of our convertible notes. In October 2001, we repurchased \$30,000,000 in principal amount of our 5% convertible subordinated notes due September 2007 and recorded a gain of \$10,340,000 on the retirement of the convertible subordinated notes in the fourth quarter of 2001.

In April 2002, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standard ("SFAS") 145, "Recission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections." FAS 145 rescinds FAS 4 and FAS 64, which addressed the accounting for gains and losses from extinguishment of debt. Under FAS 145 the gain on retirement of convertible subordinated notes is considered an ordinary item. Previously, the gain on retirement of convertible subordinated notes was classified as an extraordinary item. The item has been reclassified. At December 31, 2002 and 2001, \$315,000,000 of the convertible subordinated notes was outstanding.

Using the equity method of accounting, we recorded \$662,000 as our share of loss in Altus Biologics Inc. (Altus), for the year ended December 31, 2001. The loss is included in other expense on the Statement of Operations. Effective September 28, 2001, coincident with a financial restructuring of Altus, we changed our method of accounting for Altus from the equity method to the cost method. See Note H to our consolidated financial statements included in this report.

Effective July 1, 2001, we adopted Derivative Implementation Group Issue No. A17, "Contracts that Provide for Net Share Settlement" (DIG A17). Pursuant to the adoption of DIG A17, we recorded a \$17,749,000 cumulative effect of a change in accounting principle to reflect the value of warrants held in Altus. This amount is included in investments in the December 31, 2001 balance sheet. As of September 30, 2001, the warrants no longer qualified as derivatives under DIG A17 due to changes in the terms of the warrants coincident with a financial restructuring of Altus.

## Overview of Research and Development Investment

We estimate that it takes 10 to 15 years (the industry average is 12 years) to discover, develop and bring to market a pharmaceutical product. Drug development in the U.S. is a process that includes several steps defined by the FDA as outlined below:

| Phase:       | Objective:   | Estimated Duration: |
|--------------|--|---------------------|
| Discovery    | Lead identification and target validation  | 2 to 4 years        |
| Pre-Clinical | Toxicology to identify risks for humans; gather early pharmacokinetic data                       | 1 to 2 years        |
| Phase I      | Establish safety in humans, study how the drug works, metabolizes and interacts with other drugs | 1 to 2 years        |
| Phase II     | Establish effectiveness of the drug and its optimal dosage                                       | 2 to 4 years        |
| Phase III    | Confirm efficacy, dosage regime and safety profile of the drug                                   | 2 to 4 years        |
| FDA approval | Approval by the FDA to sell and market the drug under certain prescribed labeling                | 6 mths to 2 years   |

The successful development of our products is highly uncertain and subject to a number of risk factors. The duration of clinical trials may vary substantially according to the type, complexity and novelty of the pharmaceutical product. 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. Data obtained from pre-clinical and clinical activities are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The duration and the cost related to discovery, pre-clinical and clinical trials may vary significantly over the life of a project and are difficult to predict. The most significant costs associated with drug discovery and development are those costs associated with Phase II and Phase III clinical trials.

Set forth below is a description of our drug candidates currently in preclinical and clinical development:

### VERTEX-DRIVEN PROGRAMS

| Drug Candidate                             | Clinical Indications                            | Phase   | Program              | Collaborator |
|--|---|---------|----------------------|--------------|
| <b>Infectious Disease</b>                  |   |         |                      |              |
| Merimepodib (VX-497)                       | Chronic hepatitis C                             | II      | IMPDH                | —            |
| VX-950                                     | Chronic hepatitis C                             | Preclin | Hepatitis C protease | —            |
| <b>Inflammation and Autoimmune Disease</b> |   |         |                      |              |
| VX-148                                     | Psoriasis; autoimmune diseases                  | II      | IMPDH                | —            |
| VX-702                                     | Acute Coronary Syndromes; Inflammatory diseases | I       | p38 MAP Kinase       | Kissei       |
| VX-944                                     | Autoimmune diseases                             | I       | IMPDH                | —            |
| VX-765                                     | Inflammatory diseases                           | Preclin | ICE                  | —            |
| VX-850                                     | Inflammatory diseases                           | Preclin | p38 MAP Kinase       | —            |
| <b>Genetic Disorders</b>                   |   |         |                      |              |
| VX-563                                     | Multiple indications                            | I       | Histone deacetylase  | —            |

## PARTNER-DRIVEN PROGRAMS

| Drug Candidate                             | Clinical Indications   | Phase                | Program  | Collaborator    |
|--|--|----------------------|----------|-----------------|
| <b>Infectious Disease</b>                  |  |                      |          |                 |
| VX-175<br>(GW433908,<br>908)               | HIV  | NDA/<br>MAA<br>filed | HIV      | GlaxoSmithKline |
| VX-385                                     | HIV  | I                    | HIV      | GlaxoSmithKline |
| VX-799                                     | Sepsis   | Preclin              | Caspases | Serono          |
| <b>Inflammation and Autoimmune Disease</b> |  |                      |          |                 |
| Prlnacasan<br>(VX-740)                     | Rheumatoid arthritis (RA); osteoarthritis<br>(OA); other inflammatory diseases | II                   | ICE      | Aventis         |
| <b>Cancer</b>                              |  |                      |          |                 |
| VX-528                                     | Oncology   | Preclin              | Kinase   | Novartis        |
| VX-680                                     | Oncology   | Preclin              | Kinase   | Novartis        |
| <b>Neurology</b>                           |  |                      |          |                 |
| VX-608                                     | Stroke and other neurological indications                                      | Preclin              | Kinase   | Novartis        |

In 2003, our clinical and commercial teams are focused on key development activities for five major Vertex-driven programs, where we currently retain most or all of the downstream commercial rights.

VX-148 is in Phase II clinical development for the treatment of psoriasis, an autoimmune disease affecting an estimated 2.7million individuals in the United States. A safe, oral therapy would provide an important new treatment option for patients with moderate to severe psoriasis.

VX-702 is a p38 MAP kinase inhibitor targeting treatment of inflammatory diseases including acute coronary syndromes (ACS). P38 MAP kinase inhibition represents a novel approach directed at the underlying inflammatory response observed in acute cardiovascular events, which afflict nearly 1.9million patients in the U.S. each year. We expect to begin a PhaseII study in ACS in the second quarter of 2003. Additionally, we are planning to investigate the clinical potential of VX-702 in one or more chronic inflammatory diseases.

VX-765 is an oral ICE inhibitor that we expect to enter PhaseI clinical evaluation targeting inflammatory diseases in the second quarter of 2003. Our first ICE inhibitor, prlnacasan, has demonstrated excellent tolerability in clinical studies and has shown clinical benefit in patients with rheumatoid arthritis.

VX-950 represents a new class of antiviral drugs that could directly inhibit hepatitis C viral replication. We are confident that direct antiviral therapies for hepatitis C viral infection have the potential to be an important new treatment option. We expect to begin PhaseI clinical studies of VX-950 in the second half of year 2003.

VX-563 is a small molecule modulator of gene expression currently in PhaseI clinical evaluation. By increasing the expression of proteins absent or deficient in certain disorders, VX-563 may provide a novel approach for the treatment of sickle cell and other genetic diseases.

Based on clinical activities planned or underway for 2003, we expect to have clinical data in hand by the end of this year which will help us to select two drug candidates from our Vertex-driven portfolio as priority candidates for clinical development and commercialization by Vertex in the U.S.

Partnerships have played an important role in the growth and advancement of our pipeline. Our first drug, the HIV protease inhibitor Agenerase, was developed and commercialized in collaboration with GlaxoSmithKline (GSK). Our most advanced drug candidate, currently named 908 or VX-175, is an HIV protease inhibitor that we will also co-promote with GSK, if the new drug application filed by GSK in December is approved by the FDA, which we believe could happen during the fourth quarter of 2003. We believe that 908's convenient dosing regimen, low pill count and good tolerability will make it competitive with market-leading HIV protease inhibitors.

Vertex and Aventis are making clinical progress with pralnacasan, a first-in-class, oral anti-cytokine therapy which has shown anti-inflammatory effects in Phase II clinical studies of patients with rheumatoid arthritis(RA). In the first half of 2003, Aventis is planning to initiate a large PhaseIIb study in patients with RA. Aventis has also initiated a PhaseII, 400-patient proof-of-concept study of pralnacasan in osteoarthritis (OA), a debilitating disease that afflicts an estimated 240million people worldwide.

In our broad-based kinase research program, which we are conducting in collaboration with Novartis, we selected three novel kinase inhibitors during 2002, for preclinical development targeting cancer and stroke.

*Year Ended December31, 2001 Compared with Year Ended December31, 2000*

Our net loss for 2001 was \$66,233,000 or \$0.89 per basic and diluted common share compared to a net loss of \$34,740,000 or \$0.51 per basic and diluted common share.

The following discussions relating to revenue for the year ended December31, 2000 reflect the pro forma results as if we had followed the Substantive Milestone Method of revenue recognition from our inception. Actual results for 2001 reflect the adoption of the Substantive Milestone Method as of January1, 2001. The table below details actual revenue recorded for the year ended December31, 2000 compared to proforma revenue as if we had followed the Substantive Milestone Method from our inception:

|   | For the year ended<br>December 31, 2000 |            |
|---|---|------------|
|   | Actual                                  | *Proforma  |
| Pharmaceuticals revenues:                       |   |            |
| Collaborative research and development revenues | \$ 68,239                               | \$ 53,958  |
| Royalties                                       | 12,361                                  | 12,361     |
| Discovery tools and services revenues:          |   |            |
| Product sales and royalties                     | 52,437                                  | 52,437     |
| Service revenues                                | 20,245                                  | 20,245     |
| Total revenues                                  | \$ 153,282                              | \$ 139,001 |

\*  
Substantive Milestone Method of revenue recognition applied.

Total revenues increased to \$167,490,000 in 2001 compared to \$139,001,000 in 2000. In 2001, Pharmaceuticals revenue totaling \$80,103,000 was comprised of: \$11,119,000 in royalties and \$68,984,000 in collaborative research and development revenue, as compared with \$66,319,000 comprised of: \$12,361,000 in royalties, \$53,958,000 in collaborative research and development revenue in 2000. In 2001, Discovery Tools and Services revenue totaling \$87,387,000 was comprised of: \$59,921,000 in product sales and royalties and \$27,466,000 in service revenue, as compared with

\$72,682,000 comprised of: \$52,437,000 in product sales and royalties, and \$20,245,000 in service revenue 2000.

Collaborative research and development revenue increased in 2001 by 28% or \$15,026,000 as compared with 2000. In 2001 we recognized \$36,723,000 of revenue under the Novartis collaboration compared with \$14,823,000 in 2000. In an agreement signed in May 2000, we agreed with Novartis to collaborate to discover, develop and commercialize small molecule drugs targeted at the kinase protein family. Effort related to the kinase research program increased significantly in 2001. In December 2000 we entered into a collaboration agreement with Serono to discover, develop and market caspase inhibitors. In connection with the Serono agreement we recognized \$4,802,000 in revenue during 2001 compared with \$397,000 during 2000. In May 2000 we received and recognized as revenue a \$10,000,000 license payment from Aventis under a collaborative agreement covering the development of pralnacasan (VX-740), an orally active inhibitor of interleukin-1 beta converting enzyme. The balance of collaborative and other research and development revenue for 2001 and 2000 is made up of research support payments, development reimbursements and milestones from other collaborative partners.

Pharmaceutical royalty costs of \$3,786,000 and \$4,134,000 in 2001 and 2000, respectively, consist primarily of royalty payments on the sales of Agenerase.

Product sales and royalties increased \$7,484,000, or 14%, to \$59,921,000 in 2001 from \$52,437,000 in 2000. The increase in product sales in 2001 from 2000 is due to increased technology licensing revenue and increased biotechnology product revenue, partially offset by a decrease in instrumentation revenue. Instrumentation revenue decreased in 2001 from 2000 due to the completion and delivery of several significant products and services in late 2000 and early 2001 that have not been replaced, due in part to a strategic shift in focus towards technology licensing and discovery service activity. The increase in biotechnology revenue is attributed to a continued increase in demand for proteins, drug screening assays and other biotechnology products.

Service revenue increased to \$27,466,000 in 2001 from \$20,245,000 in 2000. The increase in service revenue is attributable to new strategic alliances and screening collaborations entered into in late 2000 and early 2001.

Cost of product sales and royalties decreased \$6,413,000 or 19% to \$27,089,000 in 2001 from \$33,502,000 in 2000. The decrease in product and royalty costs is attributable to a strategic shift in focus towards technology licensing and discovery services activity. Instrumentation revenue, which has lower gross margins, decreased during the year, while technology license and biotechnology product revenue, which has higher gross margins, increased during the year.

Cost of service revenue increased from \$9,294,000 in 2000 to \$12,544,000 in 2001, primarily due to a related increase in service revenue.

Research and development expenses increased to \$150,173,000 in 2001 from \$102,441,000 in 2000 primarily due to the continued expansion of our research and development operations, an increase in the number of drug development candidates from eight candidates at December 31, 2000 to more than twelve candidates at December 31, 2001 and the continued shift of Aurora's strategy towards drug discovery activity. During 2001 there was a significant increase in research and discovery activities associated with our gene family programs, specifically our kinase research program being conducted under our Novartis collaboration, and our protease research program. Development expenses increased as we continued to advance our drug candidates with substantial investment in our p38 MAP kinase (specifically VX-745) and our IMPDH programs. Also related to our expansion were increases in personnel, facilities expenses and equipment depreciation.

Sales, general and administrative expenses remained relatively consistent totaling \$42,047,000 in 2001 compared with \$41,354,000 in 2000.

Merger related costs of \$23,654,000 in 2001 consisted of investment banking, legal and accounting fees associated with the acquisition of Aurora, which was completed on July 18, 2001.



Interest income increased approximately \$11,821,000 to \$45,133,000 in 2001 from \$33,312,000 in 2000. The increase is due to a higher level of cash and marketable securities for the full year of 2001 compared with 2000. The increase in cash and marketable securities is primarily a result of the proceeds received from the issuance in September 2000 of \$345,000,000 of 5% convertible subordinated notes due September 2007 (September Notes). In March 2000 we issued \$175,000,000 of convertible subordinated notes (March Notes), which we called for redemption in September 2000 and which were subsequently converted to equity.

Interest expense increased to approximately \$19,318,000 in 2001 from \$11,653,000 in 2000. The increase is due to interest expense associated with the September Notes.

Using the equity method of accounting, we recorded \$662,000 as our share of loss in Altus Biologics Inc. (Altus), for the year ended December 31, 2001, compared with \$550,000 as our share of loss for the year ended December 31, 2000. The loss is included in other expense on the Statement of Operations. Effective September 28, 2001, coincident with a financial restructuring of Altus, we changed our method of accounting for Altus from the equity method to the cost method. Please see Note H to our consolidated financial statements included in this report.

## **Liquidity and Capital Resources**

We have financed our operations principally through strategic collaborative agreements, strategic technology alliances, revenues from assay development and screening services, product sales, royalties, public offerings and private placements of our equity and debt securities, equipment and facilities financing, and investment income. With the approval and launch of Agenerase in April 1999, we began receiving product royalty revenues. In 2000, we completed private placements of the March Notes and the September Notes. At December 31, 2002, we had cash and marketable securities of \$634,984,000.

We have continued to increase and advance products in our research and development pipeline. Consequently, we expect to incur losses on a quarterly and annual basis as we continue to develop existing and future compounds and to conduct clinical trials of potential drugs. We also expect to incur substantial administrative and commercialization expenditures in the future and additional expenses related to filing, prosecution, defense and enforcement of patent and other intellectual property rights.

In order to help finance our substantial cash needs in the future, we anticipate entering into additional strategic collaborations, specifically in our Pharmaceuticals business. We expect these collaborations to provide us with significant sources of cash and revenue in the near and long term. In 2002, we did not enter into any new strategic collaborations. Additionally, we will rely on cash receipts from research funding, development reimbursements and potential milestone payments from our existing collaborators, as we continue to advance our research and development programs in 2003. Our collaboration with Taisho, and our research programs with Schering and Eli Lilly reached conclusion during 2002. Funding to be received from existing collaborators therefore will be lower in 2003 as compared with 2002.

In connection with the sale of certain assets of PanVera LLC to Invitrogen (described more fully in Note R to our consolidated financial statements included in this report), we will receive approximately \$95 million in cash in the first quarter of 2003. We expect to record a gain, net of transaction costs, in excess of \$75 million. At December 31, 2002, we had cash and marketable securities of \$634,984,000, and with the addition of the cash from the closing of the PanVera LLC transaction we have a strong cash and marketable securities position entering 2003.

We have \$315 million of September Notes, which are repayable in September 2007. We will continue to focus on our capital structure and consider financing opportunities to strengthen our long term liquidity profile.

To the extent that funds from these sources are not sufficient to fund our 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.

Our aggregate cash and marketable securities decreased \$108,218,000 to \$634,984,000, including cash and cash equivalents of \$108,098,000, at December 31, 2002 from \$743,202,000, including cash and cash equivalents of \$189,205,000, at December 31, 2001. Net cash used in operations was \$79,539,000 for the year ended December 31, 2002, which resulted from the net loss of \$108,621,000 and a decrease in deferred revenue of \$16,213,000, offset by \$28,215,000 of net non-cash charges and gains, and \$17,080,000 of changes in operating assets and liabilities. Deferred revenue decreased due to contractual commitments being fulfilled in 2002 for which cash was received in 2001 or earlier. Net cash used in investing activities for 2002 was \$15,962,000, which included property and equipment expenditures of \$41,219,000 and net sales of marketable securities of \$25,051,000. Cash provided by financing activities during 2002 was \$13,842,000 including \$13,327,000 from the issuance of common stock under employee stock option and benefit plans, offset by \$4,485,000 in principal payments on capital leases and other obligations. Cash provided by financing activities also included a \$5,000,000 draw down from a loan facility created by Novartis. Novartis created a \$200,000,000 loan facility to support certain clinical studies, which we may draw down in amounts aggregating up to \$25,000,000 for each drug candidate. The loans are interest free and Novartis will forgive the full amount of any advances with respect to a particular drug candidate if Novartis accepts that drug candidate for development under the agreement. We expect to continue to draw down on the loan facility to fund certain development activities for drug candidates in the kinase research program.

## Commitments

At December 31, 2002, our future minimum commitments included facilities and certain equipment under non-cancelable operating leases, as well as contractual commitments related to our research and development programs. In January 2001 we entered into an agreement to lease approximately 290,000 square feet of laboratory and office space presently under construction in Cambridge, Massachusetts. The lease term began in January 2003 and lease payments commence in May 2003. The space is currently in an unfinished state, and we have an obligation, staged over a number of years, to build it out into finished laboratory and office space. The lease will expire in 2017 with options to extend the lease for two consecutive terms of ten years each, ultimately expiring in 2037. The table below includes our rent obligations under this lease of \$14,356,000 in 2003, \$19,202,000 in each of the years 2004 through 2007 and an aggregate of \$203,690,000 for all years thereafter. We are actively exploring alternatives to minimize our financial obligation under this lease. These alternatives include sharing, subleasing or even exiting the lease space. We expect to finalize plans for this lease in the second quarter of 2003. Actions taken to minimize our financial obligation under the lease may result in a charge to our statement of operations which is not determinable at this time. Our commitments under this lease, as well as additional non-cancelable operating leases and contractual, research and development program commitments, are included in the table below (in thousands):

| Year                      | Operating Leases<br>Commitments | R&D Contractual<br>Commitments |
|---------------------------|---------------------------------|--------------------------------|
| 2003                      | \$ 31,572                       | \$ 3,966                       |
| 2004                      | 35,056                          | 2,209                          |
| 2005                      | 34,497                          | 865                            |
| 2006                      | 31,121                          | —                              |
| 2007                      | 30,852                          | —                              |
| Thereafter                | 244,262                         | —                              |
| Total minimum commitments | \$ 407,360                      | \$ 7,040                       |

In connection with the asset sale to Invitrogen we agreed to purchase a minimum of \$3million of products from Invitrogen annually for three years after the completion of the sale.

## **Forward-looking Statements**

This report contains forward-looking statements about our business, including our expectation that (i)we are positioned to commercialize multiple products in the coming years that we expect will generate increased revenues, (ii)our losses will continue, (iii)research and development expenses will continue to increase, but research expenses will not increase without new funding from collaborations, (iv)the Chiron Corporation and Oregon Health Sciences University litigation will not have a material adverse effect on us, (v)our financial results for 2003 will be as set forth in the financial guidance provided on February4, 2003, (vi)we will finalize plans to share, sublet or exit the Kendall Square facility lease during the second quarter of 2003, (vii)we and our partners will begin clinical trials on a number of our development stage drug candidates during 2003, (viii)we will select two priority drug candidates for clinical development and commercialization by year-end, and (ix)908 will be approved and launched in the U.S. in the fourth quarter of 2003. While management makes its best efforts to be accurate in making forward-looking statements, such statements are subject to risks and uncertainties that could cause our actual results to vary materially. These risks and uncertainties include, among other things, our inability to further identify, develop and achieve commercial success for new products and technologies, the possibility of delays in the research and development necessary to select drug development candidates, the possibility of delays in the commencement or completion of clinical trials, the risk that clinical activities planned for 2003 may not be completed or adequate to provide us the data required to allow us to select two priority Vertex-driven development candidates by year-end, the risk that clinical trials may not result in marketable products, the risk that we may be unable to successfully finance and secure regulatory approval of and market our drug candidates, including 908, our dependence upon existing and new pharmaceutical and biotechnology collaborations, the levels and timing of payments under our collaborative agreements, uncertainties about our ability to obtain new corporate collaborations on satisfactory terms, if at all, the development of competing systems, our ability to protect our proprietary technologies, patent-infringement claims, risks of new, changing and competitive technologies, the risk that there may be changing and new regulations in the U.S. and internationally and uncertainty about our ability to minimize our financial obligation under the Kendall Square facility lease. Please see the "Risk Factors" appearing elsewhere in this report for more details regarding these and other risks. We disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

## **Legal Proceedings**

Chiron Corporation filed suit on July30, 1998 against Vertex and Eli Lilly and Company in the United States District Court for the Northern District of California, alleging infringement by the defendants of three U.S. patents issued to Chiron. The infringement action relates to research activities by the defendants in the hepatitis C viral protease field and the alleged use of inventions claimed by Chiron in connection with that research. Chiron has requested damages in an unspecified amount, as well as an order permanently enjoining the defendants from unlicensed use of the claimed Chiron inventions. During 1999, Chiron requested and was granted a reexamination by the U.S. Patent and Trademark Office of all three of the patents involved in the suit. Chiron also requested and, over the opposition of Vertex and Eli Lilly, was granted a stay in the infringement lawsuit, pending the outcome of the patent re-examination. That reexamination proceeding is still on-going and the stay is still in effect. However, a Reexamination Certificate has been issued in two of the three Chiron patents involved and a Notice of Intent to Issue a Reexamination Certificate has been issued with respect to the third patent. While the length of the stay and the final outcome of the lawsuit cannot be determined, we maintain that Chiron's claims are without merit, and we intend to defend the lawsuit, if and when it resumes, vigorously.

On December 7, 2001 Oregon Health Sciences University filed suit against Vertex in the District Court of Oregon. The complaint in the suit seeks to name Dr. Bruce Gold, an employee of Oregon Health Sciences University, as an inventor and Oregon Health Sciences University as part owner of five of Vertex's neurophilin patents, and associated damages. One of the five patents has recently been removed from the suit on a motion by Vertex. The suit stems from assays run on Vertex compounds by Dr. Gold under a sponsored research agreement in 1996. We have investigated the inventorship on these patents and believe that Dr. Gold is not an inventor, Oregon Health Sciences has no ownership interest in any of these patents, and that the claims made in this complaint are without merit. We intend to contest this suit vigorously.

### **Recent Accounting Pronouncements**

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment of Long-Lived Assets." SFAS No. 144 supercedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of" and provides a single accounting model for long-lived assets to be disposed of. The provisions of SFAS No. 144 will be effective for fiscal years beginning after December 15, 2001. We adopted the provisions of SFAS 144 on January 1, 2002 as required; the adoption did not have a material effect on our financial position and results of operations.

In April 2002, the FASB issued SFAS No. 145, "Rescission of FASB Nos. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections as of April 2002." This Statement rescinds FASB No. 4, "Reporting Gains and Losses from Extinguishment of Debt," and an amendment of that Statement and FASB Statement No. 64, "Extinguishments of Debt Made to Satisfy Sinking-Fund Requirements" and SFAS No. 44, "Accounting for Intangible Assets of Motor Carriers." SFAS No. 145 also amends SFAS No. 13, "Accounting for Leases," to eliminate an inconsistency between the required accounting for sale-leaseback transactions and the required accounting for certain lease modifications that have the same economic effect as a sale-leaseback transaction. SFAS No. 145 also amends other existing authoritative pronouncements to make various technical corrections, clarify meanings, or describe their applicability under changed conditions. Adoption of certain provisions of this standard was required after May 15, 2002, while other provisions must be adopted within financial statements issued after May 15, 2002 or the year beginning after May 15, 2002. Under SFAS 145 the gain on retirement of convertible subordinated notes is considered an ordinary item. Previously, the gain on convertible subordinated notes was classified as an extraordinary item.

In September 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities," which supersedes EITF 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)." The standard affects the accounting for restructuring charges and related activities. The provisions of this statement are required to be adopted for exit or disposal activities that are initiated after December 31, 2002. We do not expect the adoption of SFAS No. 146 to have an impact on our financial position and results of operations.

In November 2002, the FASB issued Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" (FIN 45). FIN 45 elaborates on the disclosures the Company must make about obligations under certain guarantees that we have issued. It also requires the Company to recognize, at the inception of a guarantee, a liability for the fair value of the obligations we have undertaken in issuing the guarantee. The initial recognition and initial measurement provisions are to be applied only to guarantees issued or modified after December 31, 2002. We have adopted the disclosure provisions as required by FIN 45. We are still evaluating the potential impact of FIN 45 on our financial position and results of operations.

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest

entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first interim or annual period beginning after June 15, 2003. We do not expect FIN 46 to have a material effect on our consolidated financial statements.

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21 ("EITF 00-21"), "Revenue Arrangements with Multiple Deliverables." EITF 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of EITF 00-21 will apply to revenue arrangements entered into in fiscal periods beginning after June 15, 2003. Although we do not expect the adoption of EITF 00-21 to have a material impact, we are still evaluating the potential impact of EITF 00-21 on our financial position and results of operations.

#### **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

As part of its investment portfolio, Vertex owns financial instruments that are sensitive to market risks. The investment portfolio is used to preserve Vertex's capital until it is required to fund operations, including Vertex's research and development activities. None of these market risk sensitive instruments are held for trading purposes. Vertex does not have derivative financial instruments in its investment portfolio.

##### *Interest Rate Risk*

Vertex invests its cash in a variety of financial instruments, principally securities issued by the U.S. government and its agencies, investment grade corporate bonds and notes and money market instruments. These investments are denominated in U.S. dollars. All of its interest-bearing securities are subject to interest rate risk, and could decline in value if interest rates fluctuate. Substantially all of Vertex's investment portfolio consists of marketable securities with active secondary or resale markets to help ensure portfolio liquidity, and Vertex has implemented guidelines limiting the term to maturity of its investment instruments. Due to the conservative nature of these instruments, Vertex does not believe that it has a material exposure to interest rate risk.

#### **ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

The information required by this Item 8 is contained on pages F-1 through F-44 of this Report.

#### **ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

Not applicable.

## PART III

### ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information regarding directors required by this Item 10 is included in the definitive Proxy Statement for Vertex's 2003 Annual Meeting of Stockholders, to be filed with the Commission on or about April 9, 2003 (the "2003 Proxy Statement"), under "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" and is incorporated herein by reference. The information regarding executive officers required by this Item is included in Part I of this Annual Report on Form 10-K.

### ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 is included in the 2003 Proxy Statement under "Executive Compensation" and is incorporated herein by reference (excluding, however, the "Report on Executive Compensation" and the Performance Graph contained in the 2003 Proxy Statement, which shall not be deemed incorporated herein).

### ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item 12 is included in the 2003 Proxy Statement under "Security Ownership of Certain Beneficial Owners and Management" and "Executive Compensation—Equity Compensation Plan Information" and is incorporated herein by reference.

### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this Item 13 is included in the 2003 Proxy Statement under "Employment Contracts and Change-in-Control Arrangements" and is incorporated herein by reference.

### ITEM 14. CONTROLS AND PROCEDURES

(a) **Evaluation of Disclosure Controls and Procedures.** The Company's chief executive officer and chief financial officer, after evaluating the effectiveness of the Company's disclosure control and procedures (as defined in Exchange Act Rules 13(a)—14(c)) as of a date within 90 days of the filing date of this Annual Report on Form 10-K, have concluded that, based on such evaluation, the Company's disclosure controls and procedures were adequate and effective to ensure that material information relating to the Company, including its consolidated subsidiaries, was made known to them by others within those entities, particularly during the period in which this Annual Report on Form 10-K was being prepared. In designing and evaluating the disclosure controls and procedures, the Company's management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

(b) **Changes in Internal Controls.** There were no significant changes in the Company's internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation, nor were there any significant deficiencies or material weaknesses in the Company's internal controls. Accordingly, no corrective actions were required or undertaken.

## PART IV

### ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

(a)(1) **Financial Statements.** The Financial Statements required to be filed by Item 8 of this Annual Report on Form 10-K, and filed herewith, are as follows:

|   | Page<br>Number in<br><br>this Form<br>10-K |
|---|--|
| Reports of Independent Accountants  | F-2 to<br>F-4                              |
| Consolidated Balance Sheets as of December 31, 2002 and 2001  | F-5  |
| Consolidated Statements of Operations for the years ended December 31, 2002, 2001 and 2000                                  | F-6  |
| Consolidated Statements of Stockholders' Equity and Comprehensive Loss for the years ended December 31, 2002, 2001 and 2000 | F-7  |
| Consolidated Statements of Cash Flows for the years ended December 31, 2002, 2001 and 2000                                  | F-8  |
| Notes to Consolidated Financial Statements  | F-9 to<br>F-44                             |

(a)(2) **Financial Statement Schedules.** Financial Statement Schedules have been omitted because they are either not applicable or the required information is included in the consolidated financial statements or notes thereto.

(a)(3) **Exhibits.**

| Exhibit<br>Number | Exhibit Description   |
|-------------------|---|
| 2.1               | Agreement and Plan of Merger dated as of April 29, 2001, by and among Vertex, Aurora and Ahab Acquisition Sub Inc. (filed as Exhibit 2 to Vertex's Current Report on Form 8-K dated April 29, 2001 [File No. 000-19319] and incorporated herein by reference).                              |
| 2.2               | Asset Purchase Agreement among Vertex, PanVera LLC and Invitrogen Corporation dated February 4, 2003 (filed herewith).  |
| 3.1               | Restated Articles of Organization filed with The Commonwealth of Massachusetts on July 31, 1991 (filed as Exhibit 3.1 to Vertex's 1997 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).   |
| 3.2               | Articles of Amendment filed with The Commonwealth of Massachusetts on June 4, 1997 (filed as Exhibit 3.2 to Vertex's 1997 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).  |
| 3.3               | Certificate of Vote of Directors Establishing a Series of a Class of Stock, as filed with the Secretary of The Commonwealth of Massachusetts on July 31, 1991 (filed as Exhibit 3.3 to Vertex's 1997 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference). |
| 3.4               | Articles of Amendment filed with The Commonwealth of Massachusetts on May 21, 2001 (filed as Exhibit 3.4 to Vertex's registration statement on Form S-4 [Registration Number 333-61480] and incorporated herein by reference.)  |
| 3.5               | By-laws of Vertex as amended and restated as of March 12, 2001 (filed as Exhibit 3.4 to Vertex's 2000 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).  |
| 4.1               | Specimen stock certificate (filed as Exhibit 4.1 to Vertex's Registration Statement on Form S-1 [Registration No. 33-40966] or amendments thereto and incorporated herein by reference).  |
| 4.2               | Stockholder Rights Plan (filed as Exhibit 4.2 to Vertex's Registration Statement on Form S-1 [Registration No. 33-40966] or amendments thereto and incorporated herein by reference).   |

- 4.3 First Amendment to Rights Agreement dated as of February 21, 1997 (filed as Exhibit 4.3 to Vertex's 1996 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 4.4 Indenture dated as of September 19, 2000 between Vertex and State Street Bank and Trust Company (filed as Exhibit 4.1 to Vertex's Quarterly Report on Form 10-Q for the quarter ended September 30, 2000 [File No. 000-19319] and incorporated herein by reference).
- 4.5 Supplemental Indenture dated as of December 12, 2000 between Vertex and State Street Bank and Trust Company (filed as Exhibit 4.2 to Pre-Effective Amendment No.1 to the Form S-3 filed by Vertex [Registration No. 333-49844] and incorporated herein by reference).
- 4.6 Registration Rights Agreement dated as of September 19, 2000 among Vertex and Merrill Lynch & Co., Merrill Lynch, Pierce, Fenner & Smith Incorporated, Credit Suisse First Boston Corporation, Robertson Stephens, Inc., Chase Securities Inc. and J.P. Morgan Securities Inc., as Initial Purchasers (filed as Exhibit 4.2 to Vertex's Quarterly Report on Form 10-Q for the quarter ended September 30, 2000 [File No. 000-19319] and incorporated herein by reference).
- 4.7 Second Amendment to Rights Agreement dated as of June 30, 2001 (filed as Exhibit 4.4 to Vertex's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 [File No. 000-19319] and incorporated herein by reference).
- 10.1 1991 Stock Option Plan, as amended and restated as of September 14, 1999 (filed as Exhibit 10.1 to Vertex 1999 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).\*
- 10.2 1994 Stock and Option Plan, as amended and restated as of September 14, 1999 (filed as Exhibit 10.1 to Vertex 1999 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).\*
- 10.3 1996 Stock and Option Plan, Amended and Restated as of July 17, 2002 (filed herewith).\*
- 10.4 Non-Competition and Stock Repurchase Agreement between Vertex and Joshua Boger, dated April 20, 1989 (filed as Exhibit 10.2 to Vertex's Registration Statement on Form S-1 [Registration No. 33-40966] or amendments thereto and incorporated herein by reference).\*
- 10.5 Form of Employee Stock Purchase Agreement (filed as Exhibit 10.3 to Vertex's Registration Statement on Form S-1 [Registration No. 33-40966] or amendments thereto and incorporated herein by reference).\*
- 10.6 Form of Employee Non-Disclosure and Inventions Agreement (filed as Exhibit 10.4 to Vertex's Registration Statement on Form S-1 [Registration No. 33-40966] or amendments thereto and incorporated herein by reference).
- 10.7 Form of Executive Employment Agreement executed by Joshua S. Boger and Vicki L. Sato (filed as Exhibit 10.6 to Vertex's 1994 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).\*
- 10.8 Form of Amendment to Employment Agreement executed by Joshua S. Boger and Vicki L. Sato (filed as Exhibit 10.1 to Vertex's Quarterly Report on Form 10-Q for the quarter ended June 30, 1995 [File No. 000-19319] and incorporated herein by reference).\*
- 10.9 Executive Employment Agreement between Vertex and Iain P.M. Buchanan (filed as Exhibit 10.9 to Vertex's 2001 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).\*
- 10.10 Agreement dated December 21, 2000 between Vertex and Richard H. Aldrich (filed as Exhibit 10.10 to Vertex's 2001 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).\*



- 10.11 Lease dated March 3, 1995, between Fort Washington Realty Trust and Vertex, relating to the premises at 130 Waverly Street, Cambridge, MA (filed as Exhibit 10.15 to Vertex's 1994 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 10.12 First Amendment to Lease dated March 3, 1995 between Fort Washington Realty Trust and Vertex (filed as Exhibit 10.15 to Vertex's 1995 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 10.13 Second Amendment to Lease and Option Agreement dated June 12, 1997 between Fort Washington Realty Trust and Vertex (filed as Exhibit 10.17 to Vertex 1999 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 10.14 Third, Fourth and Fifth Amendments to Lease between Fort Washington Realty Trust and Vertex (with certain confidential information deleted) (filed as Exhibit 10.14 to Vertex's 2001 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 10.15 Lease by and between Trustees of Fort Washington Realty Trust, Landlord, and Vertex, executed September 17, 1999 (filed as Exhibit 10.27 to Vertex's Quarterly Report on Form 10-Q for the quarter ended September 30, 1999, with certain confidential information deleted [File No. 000-19319], and incorporated herein by reference).
- 10.16 Lease by and between Kendall Square, LLC, Landlord, and Vertex, executed January 18, 2001 (with certain confidential information deleted) (filed as Exhibit 10.16 to Vertex's 2001 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 10.17 Agreement for Lease of Premises at 88 Milton Park, Abingdon, Oxfordshire between Milton Park Limited and Vertex Pharmaceuticals (Europe) Limited and Vertex Pharmaceuticals Incorporated (filed as Exhibit 10.18 to Vertex 1999 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 10.18 Research and Development Agreement dated April 13, 1993 between Vertex and Kissei Pharmaceutical Co., Ltd. (with certain confidential information deleted) (filed as Exhibit 10.1 to Vertex's Quarterly Report on Form 10-Q for the quarter ended March 31, 1993 [File No.000-19319] and incorporated herein by reference).
- 10.19 Research Agreement and License Agreement, both dated December 16, 1993, between Vertex and Burroughs Wellcome Co. (with certain confidential information deleted) (filed as Exhibit 10.16 to Vertex's Annual Report on Form 10-K for the year ended December 31, 1993 [File No. 000-19319] and incorporated herein by reference).
- 10.20 Research and Development Agreement between Vertex and Eli Lilly and Company effective June 11, 1997 (filed with certain confidential information deleted as Exhibit 10.1 to Vertex's Quarterly Report on Form 10-Q for the quarter ended June 30, 1997 [File No. 000-19319] and incorporated herein by reference).
- 10.21 Research and Development Agreement between Vertex and Kissei Pharmaceutical Co. Ltd. effective September 10, 1997 (filed, with certain confidential information deleted, as Exhibit 10.1 to Vertex's Quarterly Report on Form 10-Q for the quarter ended September 30, 1997 [File No. 000-19319] and incorporated herein by reference).
- 10.22 Research Agreement between Vertex and Schering AG dated as of August 24, 1998 (filed, with certain confidential information deleted, as Exhibit 10.1 to Vertex's Quarterly Report on Form 10-Q for the quarter ended September 30, 1998 [File No. 000-19319] and incorporated herein by reference).
- 10.23 License, Development and Commercialization Agreement between Vertex and Hoechst Marion Roussel Deutschland GmbH dated September 1, 1999 (filed with certain confidential information deleted as Exhibit 10.27 to Vertex's Quarterly Report on Form 10-Q for the quarter ended September 30, 1999 [File No. 000-19319], and incorporated herein by reference).

- 10.24 Collaboration and Option Agreement between Vertex and Taisho Pharmaceutical Co., Ltd. dated November 30, 1999 (filed, with certain confidential information deleted, as Exhibit 10.27 to Vertex's 1999 Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 10.25 Research and Early Development Agreement between Vertex and Novartis Pharma AG dated May 8, 2000 (filed, with certain confidential information deleted, as Exhibit 10.1 to Vertex's Quarterly Report on Form 10-Q for the quarter ended March 31, 2000 [File No. 000-19319] and incorporated herein by reference).
- 10.26 Research Agreement between Vertex and Laboratoires Serono S.A. dated December 11, 2000 (with certain confidential information deleted) (filed as Exhibit 10.26 to Vertex's 2000 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).
- 10.27 Letter Agreement between Aurora and Stuart J. Collinson (filed as Exhibit 10.26 to Vertex's registration statement on Form S-4 [Registration No. 333-61480] and incorporated herein by reference).\*
- 10.28 Executive Employment Agreement between Vertex and Kenneth S. Boger (filed as Exhibit 10.28 to Vertex's 2001 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).\*
- 10.29 Executive Employment Agreement between Vertex and Ian F. Smith (filed as Exhibit 10.29 to Vertex's 2001 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).\*
- 10.30 Letter Agreement between Vertex and N. Anthony Coles, M.D. (filed as Exhibit 10.30 to Vertex's 2001 Annual Report on Form 10-K [File No. 000-19319] and incorporated herein by reference).\*
- 10.31 Form of Non-Competition Agreement between Vertex and Invitrogen Corporation dated March 28, 2003 (filed herewith).
- 10.32 Form of letter agreement with John J. Alam, Senior Vice President of Drug Evaluation and Approval; Lynne H. Brum, Vice President of Corporate Development and Communications; Pamela Fritz, Vice President, Human Resources; Mark Murcko, Vice President and Chief Technology Officer; Steven Schmidt, Vice President, Information Systems; John A. Thomson, Vice President, Research; and Jeffrey D. Wilson, Vice President, Pharmaceutical Operations, covering special rights upon a change of control transaction (filed herewith).\*
- 18.1 Letter from PricewaterhouseCoopers LLP dated November 14, 2001 re: Change in Accounting Principle (filed as Exhibit 18.1 to Vertex's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001 [File No. 000-19319] and incorporated herein by reference).
  - 21 Subsidiaries of Vertex (filed herewith).
  - 23.1 Consent of Independent Accountants, PricewaterhouseCoopers LLP (filed herewith).
  - 23.2 Consent of Ernst & Young LLP, Independent Auditors (filed herewith).
  - 23.3 Notice Regarding Consent of Arthur Andersen LLP (filed herewith).
  - 99.1 Certification of the Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
  - 99.2 Certification of the Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
  - 99.3 Certification of the Chief Executive Officer and the Chief Financial Officer under Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith).

\*

Compensatory plan or agreement applicable to management and employees.

(b)

Reports on Form 8-K. On November 14, 2002, we filed a report on Form 8-K-Item 9-Regulation FD Disclosure, reporting certifications required pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.



**VERTEX PHARMACEUTICALS INCORPORATED**  
**Index to Consolidated Financial Statements**

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[Consolidated Statements of Operations for the years ended December 31, 2002, 2001 and 2000](#)

[Consolidated Statements of Stockholders' Equity and Comprehensive Loss for the years ended December 31, 2002, 2001 and 2000](#)

[Consolidated Statements of Cash Flows for the years ended December 31, 2002, 2001 and 2000](#)

[Notes to Consolidated Financial Statements](#)

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## Report of Independent Accountants

To the Board of Directors and Stockholders of  
Vertex Pharmaceuticals Incorporated:

In our opinion, based on our audits and the report of other auditors, the accompanying consolidated balance sheets and the related consolidated statements of operations, of stockholders' equity and comprehensive loss and of cash flows present fairly, in all material respects, the financial position of Vertex Pharmaceuticals Incorporated and its subsidiaries at December 31, 2002 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2002 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. The consolidated financial statements give retroactive effect to the merger of Aurora Biosciences Corporation (formed on March 1, 2001 as a result of the consolidation of Aurora Biosciences Corporation and PanVera Corporation) on July 18, 2001 in a transaction accounted for as a pooling of interests, as described in Note D to the consolidated financial statements. We did not audit the financial statements of Aurora Biosciences Corporation for the year ended December 31, 2000, which statements reflect total revenues of 49 percent of the related consolidated totals for the year ended December 31, 2000. Those statements were audited by other auditors whose report thereon has been furnished to us, and our opinion expressed herein, insofar as it relates to the amounts included for Aurora Biosciences Corporation, is based solely on the report of the other auditors. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits and the report of other auditors provide a reasonable basis for our opinion.

As discussed in Note C to the consolidated financial statements, during each of the years ended December 31, 2001 and 2000 the Company changed its method of accounting for revenue recognition. As discussed in Note H to the consolidated financial statements, during the year ended December 31, 2001 the Company changed its method of accounting for certain derivatives.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts  
March 31, 2003

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## Report of Ernst & Young LLP, Independent Auditors

To the Board of Directors and Stockholders  
Aurora Biosciences Corporation:

We have audited the accompanying consolidated statements of operations, stockholders' equity, and cash flows of Aurora Biosciences Corporation (formed as a result of the consolidation of Aurora Biosciences Corporation and PanVera Corporation) for the year ended December 31, 2000 (not included separately herein). The consolidated financial statements give retroactive effect to the merger of Aurora Biosciences Corporation and PanVera Corporation on March 1, 2001, which has been accounted for using the pooling of interests method as described in the notes to the consolidated financial statements; such notes also describe the process of consolidation, given that PanVera Corporation's fiscal years were September 30. These consolidated financial statements are the responsibility of the Companies' management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We did not audit the statement of operations of PanVera Corporation for the year ended September 30, 2000, which reflect revenues constituting approximately 15.1% of the related combined total for the year ended December 31, 2000. Those statements were audited by other auditors whose reports have been furnished to us, and our opinion, insofar as it relates to data included for PanVera Corporation for the periods described above is based solely on the report of the other auditors.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the reports of other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the reports of other auditors, the financial statements referred to above present fairly, in all material respects, the consolidated results of its operations and its cash flows of Aurora Biosciences Corporation for the year ended December 31, 2000, after giving retroactive effect to the merger of PanVera Corporation, as described in the notes to the consolidated financial statements, in conformity with accounting principles generally accepted in the United States.

/s/ ERNST& YOUNG LLP

San Diego, California  
April 27, 2001

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**THE FOLLOWING REPORT IS A COPY OF A REPORT PREVIOUSLY ISSUED BY ARTHUR ANDERSEN LLP AND HAS NOT BEEN REISSUED BY ARTHUR ANDERSEN LLP.**

**Report of Independent Public Accountants**

To the Board of Directors and Shareholders of  
PanVera Corporation:

We have audited the accompanying balance sheets of PanVera Corporation (a Wisconsin corporation) as of September 30, 2000 and 1999\*, and the related statements of income, stockholders' equity, and cash flows for the years then ended (not included separately herein). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of PanVera Corporation as of September 30, 2000 and 1999, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States.

/s/ ARTHUR ANDERSEN LLP

Milwaukee, Wisconsin  
October 20, 2000

\*

The 1999 consolidated financial statements are not required to be presented in the 2002 annual report.

**VERTEX PHARMACEUTICALS INCORPORATED**  
**Consolidated Balance Sheets**

|   | December 31,  |            |
|---|---|------------|
|   | 2002  | 2001       |
|   | (In thousands, except<br>share and per share amounts) |            |
| <b>Assets</b>   |   |            |
| Current assets:   |   |            |
| Cash and cash equivalents   | \$ 108,098  | \$ 189,205 |
| Marketable securities, available for sale   | 526,886   | 553,997    |
| Accounts receivable   | 13,200  | 20,265     |
| Prepaid expenses  | 4,349   | 6,636      |
| Other current assets  | 4,039   | 5,989      |
| Total current assets  | 656,572   | 776,092    |
| Restricted cash   | 26,091  | 26,190     |
| Property and equipment, net   | 95,991  | 80,377     |
| Investments   | 26,433  | 26,433     |
| Other assets  | 10,633  | 16,039     |
| Total assets  | \$ 815,720  | \$ 925,131 |
| <b>Liabilities and Stockholders' Equity</b>   |   |            |
| Current liabilities:  |   |            |
| Accounts payable  | \$ 16,745   | \$ 11,628  |
| Accrued expenses and other current liabilities  | 29,306  | 31,381     |
| Accrued interest  | 4,463   | 4,467      |
| Deferred revenue  | 11,888  | 39,498     |
| Obligations under capital leases and other obligations  | 2,195   | 4,579      |
| Total current liabilities   | 64,597  | 91,553     |
| Obligations under capital leases and other obligations, excluding current portion   | 10,944  | 8,026      |
| Deferred revenue, excluding current portion   | 46,598  | 35,201     |
| Convertible subordinated notes (due September 2007)   | 315,000   | 315,000    |
| Total liabilities   | 437,139   | 449,780    |
| Commitments and contingencies (Notes K and S)   |   |            |
| Stockholders' equity:   |   |            |
| Preferred stock, \$0.01par value; 1,000,000shares authorized; none issued and outstanding at December31, 2002 and2001, respectively                           | —   | —          |
| Common stock, \$0.01par value; 200,000,000shares authorized; 76,357,412 and 75,055,160shares issued and outstanding at December31, 2002 and2001, respectively | 764   | 751        |
| Additional paid-in capital  | 794,206   | 778,018    |
| Deferred compensation, net  | —   | (20 )      |
| Accumulated other comprehensive income  | 6,764   | 11,134     |
| Accumulated deficit   | (423,153 )  | (314,532 ) |
| Total stockholders' equity  | 378,581   | 475,351    |
| Total liabilities and stockholders' equity  | \$ 815,720  | \$ 925,131 |

The accompanying notes are an integral part of the consolidated financial statements.



**VERTEX PHARMACEUTICALS INCORPORATED**  
**Consolidated Statement of Operations**

|   | Years Ended December 31,              |              |              |
|---|---------------------------------------|--------------|--------------|
|   | 2002                                  | 2001         | 2000         |
|   | (In thousands, except per share data) |              |              |
| Pharmaceutical revenues:  |                                       |              |              |
| Royalties   | \$ 10,209                             | \$ 11,119    | \$ 12,361    |
| Collaborative research and development revenues   | 77,135                                | 68,984       | 68,239       |
| Discovery tools and service revenues:   |                                       |              |              |
| Product sales and royalties   | 51,772                                | 59,921       | 52,437       |
| Service revenues  | 21,969                                | 27,466       | 20,245       |
| Total revenues  | 161,085                               | 167,490      | 153,282      |
| Costs and expenses:   |                                       |              |              |
| Royalty payments  | 3,434                                 | 3,786        | 4,134        |
| Cost of product sales and royalties   | 13,684                                | 27,089       | 33,502       |
| Cost of service revenues  | 11,163                                | 12,544       | 9,294        |
| Research and development  | 203,018                               | 150,173      | 102,441      |
| Sales, general and administrative   | 49,390                                | 42,047       | 41,354       |
| Merger related costs  | —                                     | 23,654       | —            |
| Total costs and expenses  | 280,689                               | 259,293      | 190,725      |
| Loss from operations  | (119,604 )                            | (91,803 )    | (37,443 )    |
| Interest income   | 28,722                                | 45,133       | 33,312       |
| Interest expense  | (17,684 )                             | (19,318 )    | (11,653 )    |
| Gain on retirement of convertible subordinated notes (Note L)   | —                                     | 10,340       | —            |
| Debt conversion expense   | —                                     | —            | (14,375 )    |
| Other expense   | (55 )                                 | (2,433 )     | (1,420 )     |
| Loss before cumulative effect of changes in accounting principles   | (108,621 )                            | (58,081 )    | (31,579 )    |
| Cumulative effect of changes in accounting principle—revenue recognition (Note C)   | —                                     | (25,901 )    | (3,161 )     |
| Cumulative effect of change in accounting principle—derivatives (Note H)  | —                                     | 17,749       | —            |
| Net loss  | \$ (108,621 )                         | \$ (66,233 ) | \$ (34,740 ) |
| Basic and diluted net loss per common share before cumulative effect of changes in accounting principles                                  | \$ (1.43 )                            | \$ (0.78 )   | \$ (0.47 )   |
| Cumulative effect of changes in accounting principle revenue recognition—basic and diluted  | —                                     | (0.35 )      | (0.04 )      |
| Cumulative effect of change in accounting principle derivatives—basic and diluted   | —                                     | 0.24         | —            |
| Basic and diluted net loss per common share   | \$ (1.43 )                            | \$ (0.89 )   | \$ (0.51 )   |
| Basic and diluted weighted average number of common shares outstanding  | 75,749                                | 74,464       | 67,682       |
| <b>Unaudited pro forma amounts assuming the 2001 accounting change relating to revenue recognition is applied retroactively (Note C):</b> |                                       |              |              |
| Net loss  | \$ (108,621 )                         | \$ (40,332 ) | \$ (45,860 ) |
| Basic and diluted net loss per common share   | \$ (1.43 )                            | \$ (0.54 )   | \$ (0.68 )   |

The accompanying notes are an integral part of the consolidated financial statements.

**VERTEX PHARMACEUTICALS INCORPORATED**  
**Consolidated Statements of Stockholders' Equity and Comprehensive Loss**

|  | Common Stock   |        | Additional<br>Paid-In<br>Capital | Deferred<br>Compensation | Accumulated<br>Other<br>Comprehensive<br>Income (Loss) | Accumulated<br>Deficit | Total<br>Stockholders'<br>Equity | Comprehensive<br>Income (Loss) |
|--|----------------|--------|----------------------------------|--------------------------|--|------------------------|----------------------------------|--------------------------------|
|  | Shares         | Amount |                                  |                          |  |                        |                                  |                                |
|  | (in thousands) |        |                                  |                          |  |                        |                                  |                                |
| Balance, December 31, 1999   | 63,234         | \$ 632 | \$ 466,411                       | \$ (944)                 | \$ (1,019)   | \$ (213,163)           | 251,917                          |                                |
| Net change in unrealized holding gains/(losses) on marketable securities |                |        |                                  |                          | 5,762  |                        | 5,762                            | \$ 5,762                       |
| Translation adjustments  |                |        |                                  |                          | (516)  |                        | (516)                            | (516)                          |
| Net loss   |                |        |                                  |                          |  | (34,740)               | (34,740)                         | (34,740)                       |
| Comprehensive loss   |                |        |                                  |                          |  |                        |                                  | \$ (29,494)                    |
| Issuances of common stock:   |                |        |                                  |                          |  |                        |                                  |                                |
| Benefit plans  | 5,900          | 59     | 120,832                          |                          |  |                        | 120,891                          |                                |
| Convertible subordinated notes   | 4,340          | 44     | 170,040                          |                          |  |                        | 170,084                          |                                |
| Equity compensation for services rendered                                |                |        | 372                              |                          |  |                        | 372                              |                                |
| Amortization of deferred compensation                                    |                |        | (133)                            | 770                      |  |                        | 637                              |                                |
| Adjustment for change in PanVera's year end                              |                |        |                                  |                          |  | (396)                  | (396)                            |                                |
| Balance, December 31, 2000   | 73,474         | 735    | 757,522                          | (174)                    | 4,227  | (248,299)              | 514,011                          |                                |
| Net change in unrealized holding gains/(losses) on marketable securities |                |        |                                  |                          | 7,218  |                        | 7,218                            | \$ 7,218                       |
| Translation adjustments  |                |        |                                  |                          | (311)  |                        | (311)                            | (311)                          |
| Net loss   |                |        |                                  |                          |  | (66,233)               | (66,233)                         | (66,233)                       |
| Comprehensive loss   |                |        |                                  |                          |  |                        |                                  | \$ (59,326)                    |
| Issuances of common stock:   |                |        |                                  |                          |  |                        |                                  |                                |
| Benefit plans  | 1,581          | 16     | 19,637                           |                          |  |                        | 19,653                           |                                |
| Equity compensation for services rendered                                |                |        | 320                              |                          |  |                        | 320                              |                                |
| Tax benefit of disqualifying disposition                                 |                |        | 539                              |                          |  |                        | 539                              |                                |
| Amortization of deferred compensation                                    |                |        |                                  | 154                      |  |                        | 154                              |                                |
| Balance, December 31, 2001   | 75,055         | 751    | 778,018                          | (20)                     | 11,134   | (314,532)              | 475,351                          |                                |
| Net change in unrealized holding gains/(losses) on marketable securities |                |        |                                  |                          | (4,922)  |                        | (4,922)                          | \$ (4,922)                     |
| Translation adjustments  |                |        |                                  |                          | 552  |                        | 552                              | 552                            |
| Net loss   |                |        |                                  |                          |  | (108,621)              | (108,621)                        | (108,621)                      |
| Comprehensive loss   |                |        |                                  |                          |  |                        |                                  | \$ (112,991)                   |
| Issuances of common stock:   |                |        |                                  |                          |  |                        |                                  |                                |
| Benefit plans  | 1,302          | 13     | 15,896                           |                          |  |                        | 15,909                           |                                |
| Equity compensation for services rendered                                |                |        | 292                              |                          |  |                        | 292                              |                                |
| Amortization of deferred compensation                                    |                |        |                                  | 20                       |  |                        | 20                               |                                |
| Balance, December 31, 2002   | 76,357         | 764    | 794,206                          | —                        | 6,764  | (423,153)              | 378,581                          |                                |

The accompanying notes are an integral part of the consolidated financial statements.

**VERTEX PHARMACEUTICALS INCORPORATED**  
**Consolidated Statements of Cash Flows**

|  | Years Ended December 31, |              |              |
|--|--------------------------|--------------|--------------|
|  | 2002                     | 2001         | 2000         |
|  | (In thousands)           |              |              |
| <b>Cash flows from operating activities:</b>                                   |                          |              |              |
| Net loss   | \$ (108,621 )            | \$ (66,233 ) | \$ (34,740 ) |
| Adjustments to reconcile net loss to net cash used in operating activities:    |                          |              |              |
| Depreciation and amortization  | 25,432                   | 17,964       | 12,792       |
| Non-cash based compensation expense  | 2,894                    | 1,501        | 2,113        |
| Write-down of marketable securities and investments                            | 666                      | 2,100        | 1,369        |
| Other non-cash items, net  | 1,220                    | 31           | 123          |
| Loss on disposal of property and equipment                                     | 51                       | 1,107        | 0            |
| Realized (gains)/losses on marketable securities                               | (2,048 )                 | (3,081 )     | 270          |
| Equity in losses of unconsolidated subsidiary                                  | —                        | 662          | 550          |
| Adjustment for PanVera year end  | —                        | —            | (396 )       |
| Gain on retirement of convertible subordinated notes                           | —                        | (10,340 )    | —            |
| Cumulative effects of changes in accounting principles                         | —                        | 8,152        | 3,161        |
| Changes in operating assets and liabilities:                                   |                          |              |              |
| Accounts receivable  | 7,065                    | 13,641       | (21,639 )    |
| Prepaid expenses   | 2,287                    | (3,142 )     | (514 )       |
| Other current assets   | 3,191                    | 63           | (3,163 )     |
| Accounts payable   | 5,117                    | 3,190        | 1,538        |
| Accrued expenses and other current liabilities                                 | (580 )                   | 7,313        | 8,053        |
| Accrued interest   | —                        | (444 )       | 4,840        |
| Deferred revenue   | (16,213 )                | 20,469       | 12,935       |
| Net cash used in operating activities  | (79,539 )                | (7,047 )     | (12,708 )    |
| <b>Cash flows from investing activities:</b>                                   |                          |              |              |
| Purchases of marketable securities   | (702,986 )               | (1,252,781 ) | (1,403,737 ) |
| Sales and maturities of marketable securities                                  | 728,037                  | 1,176,186    | 1,117,196    |
| Expenditures for property and equipment  | (41,219 )                | (53,899 )    | (18,033 )    |
| Proceeds from sale of equipment  | 6                        | —            | —            |
| Restricted cash  | 99                       | (11,477 )    | 2,399        |
| Investments and other assets   | 101                      | (3,116 )     | (5,284 )     |
| Net cash used in investing activities  | (15,962 )                | (145,087 )   | (307,459 )   |
| <b>Cash flows from financing activities:</b>                                   |                          |              |              |
| Private placement of common stock, net   | —                        | —            | 70,940       |
| Issuances of common stock, net   | 13,327                   | 18,626       | 48,847       |
| Repurchase of convertible debentures   | —                        | (18,900 )    | —            |
| Proceeds from sale of convertible subordinated notes, net of costs of \$16,038 | —                        | —            | 503,962      |
| Proceeds from notes payable, capital lease and loan obligations                | 5,000                    | —            | 1,120        |
| Principal payments on capital leases and other obligations                     | (4,485 )                 | (4,735 )     | (5,544 )     |
| Net cash (used in) provided by financing activities                            | 13,842                   | (5,009 )     | 619,325      |
| Effect of changes in exchange rates on cash                                    | 552                      | (311 )       | (516 )       |
| Net increase (decrease) in cash and cash equivalents                           | (81,107 )                | (157,454 )   | 298,642      |
| Cash and cash equivalents—beginning of period                                  | 189,205                  | 346,659      | 48,017       |
| Cash and cash equivalents—end of period  | \$ 108,098               | \$ 189,205   | \$ 346,659   |
| <b>Supplemental disclosure of cash flow information:</b>                       |                          |              |              |
| Cash paid for interest   | \$ 16,078                | \$ 18,244    | \$ 20,390    |
| Cash paid for taxes  | \$ 118                   | \$ 156       | \$ 360       |
| <b>Non-cash financing activities:</b>  |                          |              |              |
| Property acquired under capital leases   | \$ —                     | \$ —         | \$ 591       |

|  |    |   |    |   |    |         |
|--|----|---|----|---|----|---------|
| Conversion of convertible subordinated notes, net of unamortized deferred debt issuance costs of \$4,917 | \$ | — | \$ | — | \$ | 170,083 |
|--|----|---|----|---|----|---------|

The accompanying notes are an integral part of the consolidated financial statements.

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**VERTEX PHARMACEUTICALS INCORPORATED**  
**Notes to Consolidated Financial Statements**

**A. The Company**

Vertex Pharmaceuticals Incorporated ("Vertex" or the "Company") is a global biotechnology company that seeks to discover, develop, and commercialize major pharmaceutical products independently and with collaborators. At December 31, 2002 the Company had four facilities worldwide with approximately 1,000 employees. The facilities are located in Cambridge, MA, Madison, WI, San Diego, CA and Abingdon, UK. The Company has two operating segments: (i) Pharmaceuticals and (ii) Discovery Tools and Services.

The Company's Pharmaceuticals business seeks to discover, develop and commercialize major pharmaceutical products independently and with collaborators. The Company's proprietary, systematic, genomics-based platform, is designed to accelerate the discovery of new drugs and to expand intellectual property coverage of drug candidate compounds and classes of related compounds. This approach, which targets gene families, has formed the basis for successful drug discovery and for the advancement of drug candidates by Vertex and its collaborators. The Company has fifteen drug candidates in clinical or pre-clinical development, including drug candidates focused on the therapeutic areas of infectious diseases, autoimmune and inflammatory diseases and cancer as well as other drug candidates targeting neurological and genetic disorders.

The Company has significant collaborations with large pharmaceutical companies including Novartis, Aventis, GlaxoSmithKline and Serono. The Company is developing several drug candidates in commercial collaborations in which it retains rights to downstream product revenue. The drug candidates are derived from our research and development collaborations, and serving markets where we believe our partner can more effectively compete and provide us with a significant commercial return. Additionally, we intend to independently develop and commercialize products for high-volume markets where we can effectively reach large patient populations with a small sales force focused on specialists. The Company's first approved product is Agenerase (amprenavir), an HIV protease inhibitor, which it co-promotes with GlaxoSmithKline. The Company earns a royalty on sales of Agenerase, which is marketed worldwide. In Japan, the drug is sold under the trade name Prozei™. The Company has one drug candidate, 908 (GW 433908 or VX 175) for which a New Drug Application (NDA) is pending with the U.S. FDA.

The Company's Discovery Tools and Services business specializes in assay development, screening services, the development, manufacture and sale of instrumentation, and the manufacture and sale of proteins and reagents. This business had contracts in place that required the delivery of products, licenses and services throughout 2002.

On July 18, 2001, the Company completed a merger with Aurora Biosciences Corporation ("Aurora"). Aurora specialized in industry-leading assay development, screening and cell biology capabilities. The Company acquired all of Aurora's outstanding common stock in a tax-free, stock for stock transaction, for approximately 14.1 million shares of Vertex common stock. The merger was accounted for as a pooling of interests.

On March 1, 2001, Aurora completed a merger with PanVera Corporation ("PanVera"). At the time of the merger, PanVera was a biotechnology company engaged in the development, manufacture and worldwide supply of proteins for evaluation as targets and drug screening assays for high-throughput screening. Aurora acquired all of PanVera's outstanding common stock in a tax-free, stock for stock transaction. The merger was accounted for as a pooling of interests.

As of July 1, 2002, the Company began to commercialize the Aurora instruments and services, along with PanVera's reagents and probes business, under the name PanVera LLC. PanVera LLC's core business includes commercialization of fluorescence assay technologies, assay development services, the

manufacture and sale of proteins, reagent and probes, and the development and sale of instrumentation systems. The former Aurora San Diego site operations focus mainly on pharmaceutical drug discovery and operate under the name Vertex Pharmaceuticals (San Diego) LLC. Upon completion of the July 1, 2002 reorganization, PanVera LLC comprised most of the Discovery Tools and Services segment of the Company's business, and Vertex Pharmaceuticals (San Diego) LLC conducted operations principally in the Pharmaceuticals operating segment.

On February 4, 2003, Vertex and PanVera LLC entered into an Asset Purchase Agreement with Invitrogen Corporation (Invitrogen) pursuant to which Invitrogen agreed to purchase certain assets of PanVera LLC for approximately \$95,000,000 in cash and to assume certain liabilities. The disposition did not include the instrumentation assets of PanVera LLC. Please refer to Note R: "Subsequent Event" for further information. The sale was completed on March 28, 2003.

The Company is subject to risks common to companies in the biotechnology industry including, but not limited to, rapid technological change and competition, dependence on key personnel, uncertainty of protection of proprietary technology, clinical trial uncertainty, dependence on collaborative partners, share price volatility, the possible need to obtain additional funding, uncertainties relating to pharmaceutical pricing and reimbursement, limited experience in manufacturing, sales and marketing, potential product liability and the need to comply with government regulations. The Company expects to incur operating losses for the foreseeable future, as a result of expenditures for its research and development programs.

## **B. Accounting Policies**

### *Basis of Presentation*

The consolidated financial statements reflect the operations of the Company and its wholly owned subsidiaries. The mergers with Aurora and PanVera have been accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16, "Business Combinations" ("APB 16"). Accordingly, all prior period consolidated financial statements presented have been restated to include the combined results of operations, financial position and cash flows of Aurora and PanVera as though the mergers had been in effect since the inception of Aurora and PanVera. All significant intercompany balances and transactions have been eliminated.

Prior to the merger, PanVera's fiscal year end was September 30. In recording the business combination, PanVera's results of operations for the fiscal year ended September 30, 2000 have been combined with the Company's results of operations for the fiscal year ended December 31, 2000. In accordance with APB 16, PanVera's results of operations and cash flows for the three month period ended December 31, 2000 have been added directly to the Company's accumulated deficit and cash flows at December 31, 2000, and are excluded from reported fiscal 2000 consolidated results of operations. PanVera's revenue and net loss for the three months ended December 31, 2000 was \$3,005,000 and \$396,000, respectively. Included in PanVera's results of operations for the three months ended December 31, 2000 were merger related costs of approximately \$467,000.

### *Reclassification in the Preparation of Financial Statements*

Certain amounts in prior years' financial statements have been reclassified to conform to the current presentation. These reclassifications had no effect on the reported net loss.

### *Use of Estimates*

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reported periods. Significant estimates in these consolidated financial statements include useful lives for depreciation and amortization, warranty reserves, collectibility of accounts receivable, estimated fair value of equity instruments and whether any decline in such fair value is other-than-temporary and estimates of cost to completion under long-term production contracts applying percentage of completion accounting. Changes in estimates are recorded in the period in which they become known. We base our estimates on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ from those estimates.

### *Cash and Cash Equivalents*

Cash equivalents, which are money market funds and debt securities, are valued at cost plus accrued interest. The Company considers all highly liquid investments with original maturities of three months or less at the date of purchase to be cash equivalents. Changes in cash and cash equivalents may be affected by shifts in investment portfolio maturities as well as by actual cash receipts and disbursements.

### *Marketable Securities*

Marketable securities consist of investments in high-grade corporate bonds, asset-backed securities and U.S. government agency securities that are classified as available for sale. Since these securities are available to fund current operations, they are classified as current assets on the balance sheet. Marketable securities are stated at fair value with unrealized gains and losses included as a component of accumulated other comprehensive income (loss), which is a separate component of stockholders' equity, until realized. The fair value of these securities is based on quoted market prices. If a decline in the fair value is considered other-than-temporary, based on available evidence, the unrealized loss is transferred from other comprehensive income (loss) to the consolidated statement of operations. For the years ended December 31, 2002, 2001 and 2000, the Company recorded \$666,000, \$600,000 and \$1,369,000, respectively, in charges to write down certain marketable securities because the decline in value was considered other-than-temporary. Realized gains and losses are determined on the specific identification method and are included in interest income.

### *Investments*

Investments include long term investments recorded under both the cost and equity methods of accounting. The Company uses the equity method of accounting for investments when it has an ownership interest of 20% to 50%. When the Company holds an ownership interest of less than 20%, and does not have the ability to exercise significant influence over the investment entity's operating activities, the Company accounts for its investment using the cost method. If any adjustment to fair value reflects a decline in the value of the investment below cost, the Company considers available evidence, including the duration and extent to which the market value has been less than cost, to evaluate the extent to which the decline is other-than-temporary. If the decline is considered other-than-temporary, the cost basis of the investment is written down to fair value as a new cost basis.

and the amount of the write down is included in the Company's consolidated statement of operations. For the year ended December 31, 2001, the Company recorded \$1,500,000 in charges related to the write-down of an investment because the decline in the value of the investment was considered other-than-temporary.

#### *Concentration of Credit Risk*

Financial instruments, which potentially subject the Company to concentration of credit risk, consist principally of money market funds and marketable securities. The Company places these investments in highly rated financial institutions, and, by policy, limits the amounts of credit exposure to any one financial institution. These amounts at times may exceed federally insured limits. The Company has not experienced any credit losses in such accounts and does not believe it is exposed to any significant credit risk on these funds. The Company has no foreign exchange contracts, option contracts or other foreign hedging arrangements.

To date, the Company's revenue has been generated from a limited number of customers in the biotechnology and pharmaceuticals industries in the US, Europe and Japan. In 2002 the Company had significant revenue transactions with Novartis Pharma AG, which accounted for 26% of the Company's total revenue. In 2001, the Company's revenue included transactions with each of the following customers: Novartis (22%) and Pfizer, Inc (17%), including Warner-Lambert, which Pfizer acquired in 2000. In 2000 the Company's revenue included significant transactions with these same two customers, Novartis (18%) and Pfizer (17%). The loss of such customers could have a material adverse impact on the Company.

Kissei Pharmaceuticals, Co.,Ltd. and GlaxoSmithKline represented approximately 27% and 19%, respectively, of the Company's accounts receivable balance at December 31, 2002. GlaxoSmithKline, Kissei Pharmaceuticals, Co.,Ltd. and Novartis Pharma AG represented approximately 20%, 15%, and 10%, respectively, of the Company's accounts receivable balance at December 31, 2001. Management believes that credit risks associated with these collaborative partners are not significant.

#### *Property and Equipment*

Property and equipment are recorded at cost. Depreciation and amortization are provided using the straight-line method over the lesser of the lease terms or the estimated useful lives of the related assets, generally four to seven years for furniture and equipment, three to five years for computers and software and forty years for buildings. Leasehold improvements are amortized over the lesser of the useful life of the improvements or the remaining life of the lease. Major additions and betterments are capitalized; maintenance and repairs, which do not improve or extend the life of the respective assets, are charged to operations. When assets are retired or otherwise disposed of, the assets and related allowances for depreciation and amortization are eliminated from the accounts and any resulting gain or loss is reflected in the Company's consolidated statement of operations.

#### *Assets Held for Sale*

The Company classifies long-lived assets as held for sale so long as such assets are available for immediate sale in their present condition, the Company has the intent and ability to transfer the assets to a buyer within one year and the sale of such assets is considered probable at the balance sheet date. The Company considers a sale probable when a definitive purchase and sale agreement has been signed. Assets held for sale are measured at the lower of book value or fair value less cost to sell. No assets were classified as held for sale at December 31, 2002 or 2001.



### *Warranty Reserve*

Estimated expenses for warranty obligations in connection with instrumentation system sales are accrued as revenue is recognized. Reserve estimates are adjusted periodically to reflect actual experience.

### *Retirement of Convertible Subordinated Notes*

In October of 2001, the Company re-purchased and retired \$30,000,000 in principal amount of its 5% Convertible Subordinated Notes due September 2007, which resulted in a gain of \$10,340,000. In April 2002, the FASB issued SFAS 145, "Recission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections." SFAS 145 rescinds SFAS 4 and SFAS 64, which addressed the accounting for gains and losses from extinguishment of debt. Under SFAS 145 the gain on retirement of convertible subordinated notes is considered an ordinary item. Previously, the gain on retirement of convertible subordinated notes was classified as an extraordinary item.

### *Stock-Based Compensation*

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation, Transition and Disclosure" ("SFAS 148"). SFAS 148 amends SFAS No. 123 "Accounting for Stock-Based Compensation" ("SFAS 123"), to provide alternative methods of transition for a voluntary change to the fair-value based method of accounting for stock-based employee compensation. In addition, SFAS 148 amends the disclosure requirements of SFAS 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based compensation and the effect of the method used on reported results. The transition and annual disclosure requirements of SFAS 148 are effective for the company's fiscal year ending December 31, 2002. The Company has adopted SFAS 148 as required for the fiscal year ending December 31, 2002.

In accordance with SFAS 148, the Company has adopted the disclosure-only provisions of SFAS 123 and applies Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") and related interpretations in accounting for all awards granted to employees. Under APB 25, provided other criteria are met, when the exercise price of options granted to employees under these plans equals the market price of the common stock on the date of grant, no compensation cost is required. When the exercise price of options granted to employees under these plans is less than the market price of the common stock on the date of grant, compensation costs are expensed over the vesting period. Subsequent changes to option terms can also give rise to compensation.

At December 31, 2002 the Company had three stock-based employee compensation plans, which are described more fully in Note N. No stock-based employee compensation cost is reflected in net loss, as all options granted under the plans had an exercise price equal to the market value of the underlying common stock on the date of grant. For stock options granted to nonemployees, the Company recognizes compensation costs in accordance with the requirements of SFAS 123. SFAS 123 requires that companies recognize compensation expense for grants of stock, stock options and other equity instruments based on fair value.

The following table illustrates the effect on net loss and net loss per share if we had applied the fair value recognition of SFAS123 to the Company's stock-based employee compensation.

|   | Year Ended December 31,               |               |              |
|---|---------------------------------------|---------------|--------------|
|   | 2002                                  | 2001          | 2000         |
|   | (In thousands, except per share data) |               |              |
| Net loss attributable to common shareholders, as reported   | \$ (108,621 )                         | \$ (66,233 )  | \$ (34,740 ) |
| Deduct: Total stock-based employee compensation expense determined under the fair value based method for all awards | (54,686 )                             | (55,295 )     | (30,878 )    |
| Pro forma net loss  | \$ (163,307 )                         | \$ (121,528 ) | \$ (65,618 ) |
| Basic and diluted net loss per common share, as reported  | \$ (1.43 )                            | \$ (0.89 )    | \$ (0.51 )   |
| Basic and diluted net loss per common share, pro forma  | \$ (2.16 )                            | \$ (1.63 )    | \$ (0.97 )   |

### *Revenue Recognition*

The Company's revenue recognition policies are in accordance with the Securities and Exchange Commission's ("SEC") Staff Accounting Bulletin No.101, "Revenue Recognition in Financial Statements" ("SAB 101"). The Company generates revenues through collaborative research and development agreements, assay development and screening services, product sales and royalty agreements.

### *Pharmaceuticals—Collaborative Research and Development Revenue*

The Company's collaborative research and development revenue is primarily generated through collaborative research and development agreements with strategic partners for the development of major pharmaceutical products. The terms of the agreements typically include non-refundable up-front license fees, funding of research and development efforts, payments based upon achievement of certain at-risk and substantive milestones and royalties on product sales.

In the third quarter of 2001, in connection with an overall review of accounting policies concurrent with the merger with Aurora, Vertex elected to change its revenue recognition policy for collaborative and other research and development revenues from the Emerging Issues Task Force No.91-6 ("EITF 91-6") Method to the Substantive Milestone Method, adopted retroactively to January 1, 2001. Under the Substantive Milestone Method, the Company recognizes revenue from non-refundable, up-front license fees and milestones, not specifically tied to a separate earnings process, ratably over the contracted or estimated period of performance. Research funding is recognized as earned, ratably over the period of effort. Milestones, based on designated achievement points that are considered at risk and substantive at the inception of the collaborative contract, are recognized as earned, when the earnings process is complete and the corresponding payment is reasonably assured. The Company evaluates whether milestones are at risk and substantive based on the contingent nature of the milestone, specifically reviewing factors such as the technological and commercial risk that needs to be overcome and the level of investment required. Since Vertex's adoption of the Substantive Milestone Method in the third quarter of 2001 was retroactive to January 1, 2001, the results of the first two quarters of 2001 have been restated in accordance with the new revenue policy. Pursuant to the 2001 change, Vertex recorded a one-time non-cash charge of \$25,901,000, representing a cumulative change in accounting principle for periods prior to 2001.

In conjunction with the adoption of SAB 101 in the fourth quarter of 2000, Vertex changed its revenue recognition policy for collaborative research and development revenues to the EITF 91-6

method, retroactive to January 1, 2000. Under the EITF 91-6 method the Company recognized revenue from research and development arrangements, including non-refundable upfront license fees, milestones and research and development funding, over the period of continuing involvement using the lesser of the non-refundable cash received or the result achieved using percentage of completion accounting. Where the Company had no continuing involvement, non-refundable license fees were recorded as revenue upon receipt and milestones were recorded as revenue upon achievement of the milestone by the collaborative partner.

Since the Company's adoption of the EITF91-6 Method in the fourth quarter of 2000 was retroactive to January 1, 2000, the results of the first three quarters of 2000 have been restated in accordance with the new revenue recognition policy. Pursuant to the adoption of SAB101 and the EITF91-6 Method in 2000, the Company recorded a one-time non-cash charge of \$3,161,000, representing a cumulative effect of a change in accounting principle for periods prior to 2000.

#### *Pharmaceuticals—Royalty Revenue*

Royalty revenue is recognized based upon actual and estimated net sales of licensed products in licensed territories as provided by the collaborative partner and is recognized in the period the sales occur. Differences between actual royalty revenues and estimated royalty revenues, which have not been historically significant, are reconciled and adjusted for in the quarter they become known.

#### *Discovery Tools and Services—Product Sales and Royalties*

Product sales include instrumentation system sales, technology licensing and biotechnology product sales. Revenue from licenses where Vertex has continuing obligations is recognized over the period of the license. Revenue from perpetual licenses is recognized when the license is issued, provided that there are no significant continuing obligations and the payment is non-refundable and non-creditable.

Revenue from sales of biotechnology products and certain instrumentation system sales is recognized upon shipment, when the title to the product and associated risk of loss has passed to the customer, collectibility is reasonably assured and, if applicable, upon acceptance when acceptance criteria are specified or upon expiration of the acceptance period. Sales under long-term production contracts are recognized using percentage of completion accounting, based on actual costs incurred to date compared to total estimated costs to complete.

#### *Discovery Tools and Services—Service Revenues*

Service revenues include assay development, screening services, and contracted product development. Service revenue is recognized as the services are performed or ratably over the service period if the Company believes such method will approximate the expense being incurred. Revenue from up-front fees is deferred and recognized over the service period.

Certain contracts under the Discovery Tools and Services business contain obligations to sell instrumentation systems and technology licenses, in addition to providing assay development and screening services. Each of these separable elements may be individually delivered and is not considered essential to the functionality of the others. The Company allocates revenue under such contracts to each of the separable elements based on the relative fair value of each element, which under most of the agreements approximates the stated price in the contract.

Accounts receivable includes unbilled amounts on long-term production contracts totaling \$949,000 and \$3,441,000 at December 31, 2002 and 2001, respectively. Unbilled receivables represent amounts

due from customers that will be billed at future dates in accordance with contract terms. The unbilled receivables at December 31, 2002 are expected to be billed and collected within one year.

### *Research and Development*

All research and development costs, including amounts funded in research collaborations, are expensed as incurred. Research and development expenses are comprised of costs incurred in performing research and development activities including salaries and benefits, facilities costs, overhead costs, clinical trial costs, contract services and other outside costs. Collaborator and Company-sponsored research and development expenses for 2002, 2001 and 2000 were as follows:

|                        | 2002       |             |            | 2001       |             |            | 2000      |             |            |
|------------------------|------------|-------------|------------|------------|-------------|------------|-----------|-------------|------------|
|                        | Research   | Development | Total      | Research   | Development | Total      | Research  | Development | Total      |
| Collaborator-Sponsored | \$ 54,509  | \$ 35,675   | \$ 90,184  | \$ 49,490  | \$ 20,262   | \$ 69,752  | \$ 43,253 | \$ 8,757    | \$ 52,010  |
| Company-Sponsored      | 70,577     | 42,257      | 112,834    | 51,612     | 28,809      | 80,421     | 31,856    | 18,575      | 50,431     |
| Total                  | \$ 125,086 | \$ 77,932   | \$ 203,018 | \$ 101,102 | \$ 49,071   | \$ 150,173 | \$ 75,109 | \$ 27,332   | \$ 102,441 |

### *Advertising*

All advertising costs are expensed as incurred. During the years ended December 31, 2002, 2001 and 2000, advertising expenses totaled \$431,000, \$444,000 and \$1,794,000, respectively.

### *Income Taxes*

Deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial statement carrying amounts and the income tax bases of assets and liabilities. A valuation allowance is applied against any net deferred tax asset if, based on the weighted available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

### *Debt Issuance Costs*

Debt issuance costs related to expenses incurred to complete convertible subordinated debenture offerings are deferred and included in other assets on the consolidated balance sheet. The costs are amortized based on the effective interest method over the term of the related debt issuance. The amortization expense is included in interest expense on the consolidated statements of operations.

### *Comprehensive Income (Loss)*

Comprehensive income (loss) consists of net income (loss) and other comprehensive income (loss), which includes foreign currency translation adjustments and unrealized gains and losses on certain marketable securities. For purposes of comprehensive income (loss) disclosures, the Company does not record tax provisions or benefits for the net changes in foreign currency translation adjustment, as the Company intends to permanently reinvest undistributed earnings in its foreign subsidiaries.

### *Foreign Currency Translation*

The functional currency of the Company's foreign subsidiary is the local currency. Assets and liabilities of the foreign subsidiary are remeasured into U.S. dollars at rates of exchange in effect at the end of the year. Revenue and expense amounts are remeasured using the average exchange rates for

the period. Net unrealized gains and losses resulting from foreign currency remeasurement are included in other comprehensive income (loss), which is a separate component of stockholders' equity.

#### *Basic and Diluted Loss per Common Share*

Basic loss per share is based upon the weighted average number of common shares outstanding during the period. Diluted loss per share is based upon the weighted average number of common shares outstanding during the period plus additional weighted average common equivalent shares outstanding during the period when the effect is not anti-dilutive. Common equivalent shares result from the exercise of outstanding stock options, the proceeds of which are then assumed to have been used to repurchase outstanding stock using the treasury stock method, and the assumed conversion of convertible notes. Common equivalent shares have not been included in the net loss per share calculations as their effect would be anti-dilutive. Total potential gross common equivalent shares, before applying the treasury stock method, at December 31, 2002, 2001 and 2000 consisted of 17,065,000, 16,810,000 and 14,615,000 stock options outstanding, respectively, with a weighted average exercise price of \$25.73, \$27.37 and \$25.97, respectively. At December 31, 2002 and 2001 there were notes convertible into 3,414,264 shares of common stock at a conversion price of \$92.26 per share and at December 31, 2000 there were notes convertible into 3,739,000 shares of common stock at a conversion price of \$92.26.

#### *Segment Information*

The Company has two operating segments: (i) Pharmaceuticals and (ii) Discovery Tools and Services. The Company's Pharmaceuticals business seeks to discover, develop and commercialize major pharmaceutical products independently and with partners. The Company's Discovery Tools and Services business specializes in assay development, screening services, instrumentation and the manufacture and sale of proteins and reagents. Please refer to Note R: "Subsequent Event" for further information.

#### *New Accounting Pronouncements*

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment of Long-Lived Assets" ("SFAS No. 144"). SFAS No. 144 supersedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of" and provides a single accounting model for long-lived assets to be disposed of. The provisions of SFAS No. 144 are effective for fiscal years beginning after December 15, 2001. The Company adopted the provisions of SFAS 144 on January 1, 2002 as required; the adoption did not have a material effect on the Company's financial position and results of operations.

In September 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities," which supersedes EITF 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)." Statement No. 146 states that a liability for a cost associated with an exit or disposal activity shall be recognized and measured initially as its fair value in the period in which the liability is incurred, except for a liability for one-time termination benefits that are incurred over a period of time. The standard will be effective for exit or disposal activities initiated after December 31, 2002. The Company does not expect the adoption of SFAS No. 146 to have a material effect on its financial position and results of operations.

In November 2002, the FASB issued Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others"

("FIN 45"). FIN 45 elaborates on the disclosures the Company must make about obligations under certain guarantees that the company has issued. It also requires the Company to recognize, at the inception of a guarantee, a liability for the fair value of the obligations undertaken in issuing the guarantee. The initial recognition and initial measurement provisions are to be applied only to guarantees issued or modified after December 31, 2002. The Company has adopted the disclosure provision as required by FIN 45. The Company is still evaluating the potential impact of FIN 45 on its financial position and results of operations.

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21 ("EITF 00-21"), "Revenue Arrangements with Multiple Deliverables." EITF 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of EITF 00-21 will apply to revenue arrangements entered into in fiscal periods beginning after June 15, 2003. Although the Company does not expect EITF 00-21 to have a material impact, the Company is still evaluating the potential impact of EITF 00-21 on its financial position and results of operations.

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first interim or annual period beginning after June 15, 2003. The Company does not expect FIN 46 to have a material effect on its consolidated financial statements.

### **C. Change in Accounting Principle—Revenue Recognition**

In the third quarter of 2001, in connection with an overall review of accounting policies concurrent with the merger with Aurora, Vertex elected to change its revenue recognition policy for collaborative and other research and development revenues from the EITF 91-6 Method to the Substantive Milestone Method adopted retroactively to January 1, 2001. Vertex believes this method is preferable because it is more reflective of the Company's on-going business operations and is more consistent with industry practices following the prior year implementation of SAB 101 throughout the biotechnology industry in 2000. Under the Substantive Milestone Method, the Company recognizes revenue from non-refundable up-front license fees and milestones, not specifically tied to a separate earnings process, ratably over the contracted or estimated period of performance. Research funding is recognized as earned, ratably over the period of effort. Milestones, based on designated achievement points that are considered at risk and substantive at inception of the contract, are recognized as earned, and a separate earnings process is complete, when the corresponding payment is reasonably assured. The Company evaluates whether milestones are at risk and substantive based on the contingent nature of the milestone, specifically reviewing factors such as the technological and commercial risk that needs to be overcome and the level of investment required.

Pursuant to the 2001 change in accounting principle to the Substantive Milestone Method, Vertex recorded a one-time non-cash charge of \$25,901,000, representing a cumulative effect of a change in accounting principle for periods prior to 2001. The impact of the adoption of this new accounting policy for revenue recognition for collaborative and other research and development revenues was to defer revenue recognition for certain portions of revenue previously recognized under our collaborative

agreements into future accounting periods. Since Vertex's adoption of the Substantive Milestone Method in the third quarter of 2001 was retroactive to January 1, 2001, the results of the first two quarters of 2001 have been restated in accordance with the new revenue recognition policy. The pro forma amounts for net loss and net loss per basic and diluted common share, presented in the consolidated statements of operations were calculated assuming the accounting change was made retroactively to all periods prior to 2001. Included in collaborative and other research and development revenue is \$6,979,000 and \$7,748,000 of revenue recognized in 2002 and 2001, respectively, that was included in the one-time non-cash charge of \$25,901,000. The amount of revenue to be recognized in future years that was included in the one-time non-cash charge of \$25,901,000 is \$2,809,000, \$2,580,000 and \$5,785,000 in 2003, 2004 and thereafter, respectively.

In connection with the adoption of SAB 101 in the fourth quarter of 2000, Vertex had changed its revenue recognition policy for collaborative research and development agreements to the EITF 91-6 Method, retroactive to January 1, 2000. Since the Company's adoption of the EITF 91-6 Method in the fourth quarter of 2000 was retroactive to January 1, 2000, the results of the first three quarters of 2000 have been restated in accordance with the new revenue recognition policy. Pursuant to the adoption of SAB 101 in 2000, the Company recorded a one-time non-cash charge of \$3,161,000, representing a cumulative effect of a change in accounting principle for periods prior to 2000.

#### **D. Business Combinations**

On July 18, 2001, the Company completed a merger with Aurora in a tax-free, stock for stock transaction, which has been accounted for as a pooling of interests. Shares of Aurora common stock converted into shares of newly issued Vertex common stock at a fixed ratio of 0.62 shares of Vertex common stock for each share of Aurora common stock. A total of approximately 14.1 million shares of Vertex common stock were exchanged for all of Aurora's outstanding common stock, and Aurora's outstanding stock options were converted into approximately 2.6 million options to purchase Vertex common stock, based upon the same fixed ratio.

On March 1, 2001, Aurora completed a merger with PanVera. The merger qualified as a tax-free exchange and was accounted for as a pooling of interests. A total of approximately 1.6 million shares of Aurora common stock, which converted into approximately 1.0 million shares of Vertex common stock, was exchanged for all of PanVera's outstanding stock. PanVera's outstanding stock options were converted into options to purchase approximately 260,000 shares of Aurora common stock, which converted into options to purchase approximately 161,000 shares of Vertex common stock.

The Company's consolidated financial statements have been restated for all periods prior to the business combinations to include the combined financial results of Vertex, Aurora and PanVera.

Revenue and net income (loss) for the individual companies reported prior to the mergers were as follows (in thousands):

|                    | Six Months Ended<br>June 30, 2001 | Year Ended<br>December 31, 2000 |
|--------------------|-----------------------------------|---------------------------------|
| Revenue:           |                                   |                                 |
| Vertex             | \$ 35,715 *                       | \$ 78,127                       |
| Aurora             | 30,788                            | 63,790                          |
| PanVera            | 9,129                             | 11,365                          |
| Inter Company      | (35 )                             | —                               |
| Total              | \$ 75,597                         | \$ 153,282                      |
| Net Income (Loss): |                                   |                                 |
| Vertex             | \$ (51,663 )*                     | \$ (39,658 )                    |
| Aurora             | (826 )                            | 4,353                           |
| PanVera            | 996                               | 565                             |
| Total              | \$ (51,493 )                      | \$ (34,740 )                    |

\*

Revenue and net loss for the six months ended June 30, 2001 for Vertex has been restated to reflect the adoption of the Substantive Milestone Method of revenue recognition, retroactive to January 1, 2001 (Note C).

The conforming of accounting policies of Vertex, Aurora and PanVera did not result in adjustments to net income or stockholders' equity. There were no significant intercompany transactions between or among the three entities for the year ended December 31, 2000.



## E. Marketable Securities

A summary of cash equivalents and available-for-sale securities is shown below (in thousands):

| December 31, 2002                                      | Amortized<br>Cost | Gross<br>Unrealized<br>Gains | Gross<br>Unrealized<br>Losses | Fair Value |
|--|-------------------|------------------------------|-------------------------------|------------|
| Cash and cash equivalents                              |                   |                              |                               |            |
| Cash and money market funds                            | \$ 102,598        |                              |                               | \$ 102,598 |
| Municipal bonds  | 5,500             |                              |                               | 5,500      |
| Total cash and cash equivalents                        | \$ 108,098        |                              |                               | \$ 108,098 |
| Marketable securities                                  |                   |                              |                               |            |
| Total equity securities                                | \$ 265            | \$ 75                        |                               | \$ 340     |
| US government securities                               |                   |                              |                               |            |
| Due within 1 year                                      | 44,770            |                              |                               | 45,056     |
| Due within 1 to 5 years                                | 75,969            |                              |                               | 77,720     |
| Total US government securities                         | 120,739           | 2,037                        |                               | 122,776    |
| Corporate debt securities                              |                   |                              |                               |            |
| Due within 1 year                                      | 257,347           |                              |                               | 259,619    |
| Due within 1 to 5 years                                | 141,548           |                              |                               | 144,151    |
| Total corporate debt securities                        | 398,895           | 4,881                        | 6                             | 403,770    |
| Total marketable securities                            | \$ 519,899        | \$ 6,993                     | \$ 6                          | \$ 526,886 |
| Total cash, cash equivalents and marketable securities | \$ 627,997        | \$ 6,993                     | \$ 6                          | \$ 634,984 |
|  |                   |                              |                               |            |
| December 31, 2001                                      | Amortized<br>Cost | Gross<br>Unrealized<br>Gains | Gross<br>Unrealized<br>Losses | Fair Value |
| Cash and cash equivalents                              |                   |                              |                               |            |
| Cash and money market funds                            | \$ 183,810        |                              |                               | \$ 183,810 |
| Corporate debt securities                              | 5,395             |                              |                               | 5,395      |
| Total cash and cash equivalents                        | \$ 189,205        |                              |                               | \$ 189,205 |
| Marketable securities                                  |                   |                              |                               |            |
| Total equity securities                                | \$ 931            | \$ 52                        | \$ 68                         | \$ 915     |
| US government securities                               |                   |                              |                               |            |
| Due within 1 year                                      | 26,016            |                              |                               | 26,199     |
| Due within 1 to 5 years                                | 94,342            |                              |                               | 95,726     |
| Total US government securities                         | 120,358           | 1,574                        | 7                             | 121,925    |
| Corporate debt securities                              |                   |                              |                               |            |
| Due within 1 year                                      | 196,600           |                              |                               | 199,828    |
| Due within 1 to 5 years                                | 224,199           |                              |                               | 231,329    |
| Total corporate debt securities                        | 420,799           | 10,422                       | 64                            | 431,157    |
| Total marketable securities                            | \$ 542,088        | \$ 12,048                    | \$ 139                        | \$ 553,997 |
| Total cash, cash equivalents and marketable securities | \$ 731,293        | \$ 12,048                    | \$ 139                        | \$ 743,202 |

Gross realized gains and losses for 2002 were \$2,281,000 and \$233,000, respectively. Gross realized gains and losses for 2001 were \$3,134,000 and \$53,000, respectively. Gross realized gains and losses for 2000 were \$69,000 and \$339,000, respectively. Maturities stated are effective maturities.

## F. Restricted Cash

At December31, 2002 and 2001, the Company held \$26,091,000 and \$26,190,000 in restricted cash, respectively. At December31, 2002 the balance of \$26,091,000 was held in deposit with certain banks predominantly to collateralize conditional, standby letters of credit in the names of the Company's landlords in accordance with certain operating lease agreements. At December31, 2001 the balance was comprised of \$26,087,000 held in deposit with certain banks predominantly to collateralize conditional, standby letters of credit in the names of the Company's landlords in accordance with certain operating lease agreements, and \$103,000 in connection with a Variable Rate Demand Industrial Revenue Bond held by the Company.

## G. Property and Equipment

Property and equipment consist of the following at December31 (in thousands):

|  | 2002      | 2001      |
|--|-----------|-----------|
| Furniture and equipment                        | \$ 70,994 | \$ 47,910 |
| Leasehold improvements                         | 56,177    | 48,132    |
| Equipment under capital leases                 | 21,336    | 26,288    |
| Computers                                      | 14,271    | 11,351    |
| Software                                       | 11,564    | 8,057     |
| Building                                       | 6,133     | 5,960     |
| Construction in process                        | 1,519     | 1,578     |
| Total property and equipment, gross            | 181,994   | 149,276   |
| Less accumulated depreciation and amortization | 86,003    | 68,899    |
| Total property and equipment, net              | \$ 95,991 | \$ 80,377 |

Depreciation expense for the years ended December31, 2002, 2001 and 2000 was \$24,003,000 \$16,385,000 and \$11,798,000, respectively. The accumulated depreciation and amortization of equipment under capital leases was \$20,381,000 and \$25,025,000 at December31, 2002 and 2001, respectively. Assets under capital leases collateralize the related lease obligations.

In December2002, the Company wrote off certain assets that were fully utilized and depreciated. There was no effect on the Company's net property and equipment.

## H. Investments

In February1999, Vertex restructured its investment in Altus, which was a majority owned subsidiary, so that Altus operates independently from Vertex. As part of the transaction, Vertex provided Altus \$3,000,000 of cash and surrendered its shares in Altus preferred stock in exchange for two new classes of preferred stock and warrants. Vertex had a 23.5% equity investment in Altus with a balance sheet value of approximately \$1,726,000 at December31, 2000. For the year ending December31, 2000 Vertex recorded \$550,000 as its share of Altus' losses under the equity method of

accounting. Vertex does not have any revenue related or other significant operational contracts with Altus.

In September and November of 2001, Altus underwent financial restructurings, which reduced Vertex's relative ownership in Altus to approximately 14% and 11% on the respective dates. Accordingly, effective September 28, 2001, Vertex began accounting for its investment in Altus using the cost method. For the period from January 1, 2001 through September 28, 2001, Vertex recorded \$662,000 as its share of Altus' losses under the equity method of accounting. For all periods the loss is included in other expense on the statement of operations.

In the third quarter of 2001, Vertex adopted Derivative Implementation Group Issue No. A17, "Contracts that Provide for Net Share Settlement" ("DIG A17"). Subsequent to the issuance of SFAS No. 133, "Accounting for Certain Derivative Instruments and Certain Hedging Activities," the FASB established the Derivatives Implementation Group to address and interpret practice issues relating to that standard. On April 10, 2001, the FASB published DIG A17 relating to contracts that provide for net share settlement, including warrants of a privately held company. Pursuant to the adoption of DIG A17 on July 1, 2001, Vertex recorded a \$17,749,000 cumulative effect of a change in accounting principle to reflect the value of warrants held in Altus as income with a corresponding increase to Investments. The valuation of the warrants was determined based on an independent appraisal that used the Black-Scholes option pricing model to value the warrants. Significant assumptions used in the Black-Scholes model included the fair value of Altus' common stock which was based on a valuation of Altus using projected discounted cash flows and comparable market values using multiples of revenue, volatility of 70%, risk free interest rates between 4.9% to 5.6% and warrant terms per the agreements ranging from 3.5 to 11.6 years. As of September 30, 2001, the warrants no longer qualified as derivatives under DIG A17 due to changes in the terms of the warrants coincident with the financial restructuring of Altus. The Company's cost basis carrying value in its outstanding equity and warrants of Altus was \$18,813,000 at December 31, 2002 and 2001, respectively. The Company also held investments at cost in other privately held companies at December 31, 2002 and 2001.

In accordance with the Company's policy, as outlined in Note B, the Company has assessed its investment in Altus and certain other privately held companies and determined that there have not been any adjustments to the respective fair values that would indicate a decline in the fair value of the investments below cost and would require the Company to write-down the cost basis of some or any of these investments at December 31, 2002.

#### **I. Accrued Expenses and Other Current Liabilities**

Accrued expenses and other current liabilities consist of the following at December 31 (in thousands):

|   | 2002      | 2001      |
|---|-----------|-----------|
| Research and development contract costs | \$ 11,435 | \$ 10,716 |
| Payroll and benefits                    | 11,100    | 12,888    |
| Professional fees                       | 3,324     | 2,508     |
| Other                                   | 3,447     | 5,269     |
|   | \$ 29,306 | \$ 31,381 |

*Warranty Reserves:* Vertex provides for the estimated cost of warranty obligations in connection with instrumentation system sales as revenue is recognized. Reserve estimates are adjusted periodically to reflect actual experience. Below is a summary of changes in accrued warranty expense for instrumentation sales for the year ended December31, 2002 (in thousands):

|  |          |
|--|----------|
| Balance at December31, 2001                                | \$ 1,715 |
| Provision for warranty expense                             | 200      |
| Provision for change in estimate of prior warranty expense | (115 )   |
| Settlement of warranty liability                           | (1,522 ) |
| Balance at December31, 2002                                | \$ 278   |

## **J. Capital Leases and Other Obligations**

At December31, 2002, long-term capital lease, loan and other obligations were due as follows (in thousands):

| Year ended December 31,                          | Capital<br>Leases | Other Obligations | Total    |
|--|-------------------|-------------------|----------|
| 2003   | \$ 1,028          | \$ 1,217          | \$ 2,245 |
| 2004   | 101               | 240               | 341      |
| 2005   | —                 | 245               | 245      |
| 2006   | —                 | 255               | 255      |
| 2007   | —                 | 260               | 260      |
| Thereafter                                       | —                 | 4,845             | 4,845    |
| Total minimum lease and loan payments            | 1,129             | 7,062             | 8,191    |
| Less amount representing interest payments       | 52                | —                 | 52       |
| Present value of minimum lease and loan payments | 1,077             | 7,062             | 8,139    |
| Less current portion                             | 978               | 1,217             | 2,195    |
|  | \$ 99             | \$ 5,845          | \$ 5,944 |

### *Capital Lease Obligations*

The Company leases certain equipment and improvements under capital leases, which expire at various dates through June2004. Excluded from the table above is a debt obligation to Novartis for \$5,000,000. The loan is to support certain clinical studies for a particular drug candidate and is interest free. Novartis will forgive the full amount of the loan if they accept the drug candidate for further development under the collaborative agreement. There is \$195million remaining under the loan facility for the development of future drug candidates. Refer to NoteO for further information.

### *Other Obligations:*

#### *Loan Agreements*

During 1998, the Company financed assets under a master loan agreement with a cost of \$1,574,000, \$1,506,000 and \$1,005,000, with interest rates of 7.89%, 8.06% and 8.08%, respectively. During 1997, the Company financed assets under a master loan agreement with a cost of \$676,000 and \$1,137,000, with interest rates of 8.59% and 8.38%, respectively. The Company has certain equipment

with a net book value of \$408,000 designated as collateral under these agreements at December 31, 2002. These agreements have a term of five years, and require that the Company maintain a certain level of cash and investments. The carrying value of these loan obligations at December 31, 2002 and 2001 approximates fair value.

#### *Promissory Note*

In July 1997 the Company re-purchased shares of its common stock from a common stockholder by making a cash payment and issuing a promissory note. Interest is imputed at 4.91%. At December 31, 2001 the balance of the note was \$274,000. In 2002, payments of principal and interest were made in quarterly installments through July 1, 2002 and the balance outstanding on the note is zero.

#### *Variable Rate Demand Bonds*

In October 1998, the City of Madison, Wisconsin issued \$6,300,000 of Variable Rate Demand Industrial Revenue Bonds, Series 1998 and then loaned the proceeds to the Company. The Company utilized the proceeds to finance the construction of a new laboratory, production and office facility in Madison, Wisconsin, which the Company began occupying in June 2001. Terms of the loan agreement are subject to the terms of the bonds. The loan bears interest payable monthly at a rate that is the lesser of a variable rate based upon the prevailing market conditions required to resell the bonds at par value, or 12%. Variable rate adjustments are made at specified periodic determination dates. The interest rate on the bonds may be converted to a fixed rate at the option of the Company. At December 31, 2002, the variable rate of interest was 1.8%. Interest incurred in 2002, 2001 and 2000 was \$106,000, \$285,000 and \$386,000, respectively. Principal payments are due in annual installments beginning in October 2002 through October 2018. In October 2002 a payment of \$225,000 was made; the remaining balance at December 31, 2002 was \$6,075,000.

As a condition of the sale of the aforementioned Variable Rate Demand Industrial Revenue Bonds, the Company entered into an irrevocable letter of credit with a bank. As security for the bonds, a replacement letter of credit was obtained in June 2000 for an initial five year term with annual extensions thereafter through October 15, 2001. The letter of credit is secured by a General Business Security Agreement, subject to certain financial covenants.

Effective upon the sale of certain assets of PanVera LLC on March 28, 2003, the Revenue Bonds and the Company's obligations thereunder were assigned to the buyer.

#### *Line of Credit Agreements*

At December 31, 2002, the Company had available on demand a \$1 million line of credit with a bank. The interest rate on outstanding borrowings is 1.8% over the thirty day LIBOR rate. Borrowings are limited to specified percentages of eligible accounts receivable and inventory. There were no borrowings outstanding on this line of credit during 2002.

At December 31, 2002, the Company also had available a \$1 million transaction note subject to the same terms and conditions as the line of credit. There were no borrowings outstanding on this note during 2002.

Both the line of credit and transaction note are cross-collateralized with a letter of credit. Effective upon the sale of certain assets of PanVera LLC on March 28, 2003, the line of credit, transaction note and letter of credit were terminated.

In December 1999, the Company obtained a line of credit allowing for borrowings in aggregate of up to \$20,000,000 for equipment and leasehold improvement expenditures. No amounts were drawn down against the line of credit and it expired unused in 2001.

## K. Commitments

The Company leases its facilities and certain equipment under non-cancelable operating leases. The Company's leases have terms through the year 2017. In January 2001 the Company entered into an agreement to lease approximately 290,000 square feet of laboratory and office space presently under construction in Cambridge, Massachusetts. The term of this lease began January 1, 2003 and lease payments commence in May 2003. The Company has an obligation, staged over a number of years, to build out the space into finished laboratory and office space. The lease will expire in 2017 with options to extend the lease for two consecutive terms of ten years each, ultimately expiring in 2037. The Company is actively exploring alternatives to minimize its financial obligation under this lease. These alternatives include sharing, subleasing or even exiting the lease space. The Company expects to finalize plans for this lease in the second quarter of 2003. Actions taken to minimize our financial obligation under the lease may result in a charge to our statement of operations which is not determinable at this time. The Company's future minimum commitments under this lease are included in the table below.

At December 31, 2002, future minimum commitments under facility operating leases with non-cancelable terms of more than one year are as follows (in thousands):

| Year                         | Operating Leases |
|------------------------------|------------------|
| 2003                         | \$ 31,572        |
| 2004                         | 35,056           |
| 2005                         | 34,497           |
| 2006                         | 31,121           |
| 2007                         | 30,852           |
| Thereafter                   | 244,262          |
| Total minimum lease payments | \$ 407,360       |

Rental expense, primarily related to facilities, was \$15,847,000, \$15,447,000 and \$8,892,000 for the years ended December 31, 2002, 2001 and 2000, respectively.

The Company has future contractual commitments in connection with its research and development programs. For the years 2003, 2004 and 2005 the amounts committed under these contracts are \$3,966,000, \$2,209,000 and \$865,000, respectively.

## L. Convertible Subordinated Notes

On March 14, 2000, the Company issued \$175,000,000 of 5% Convertible Subordinated Notes due March 2007 ("March Notes"). The notes were convertible, at the option of the holder, into common stock at a price equal to \$40.32 per share, subject to adjustment under certain circumstances. The deferred costs associated with issuance of the March Notes were \$5,340,000, of which \$423,000 was amortized to interest expense in 2000.

On September 15, 2000, the Company announced the call for redemption of its March Notes. By October 4, 2000, all of the March Notes were converted by holders into 4,340,260 shares of common stock at a price of \$40.32 per share. The Company reclassified \$4,917,000 of related unamortized deferred debt issuance costs to stockholders' equity as part of the conversion. In connection with the

call for redemption, the holders of the March Notes were entitled to a "make-whole" payment of \$82.14 per \$1,000 principal amount of notes, which resulted in a one-time charge to earnings of \$14,375,000 in the third quarter of 2000. The "make-whole" payment was paid in cash in the fourth quarter of 2000.

On September 19, 2000, the Company issued \$345,000,000 of 5% Convertible Subordinated Notes due September 2007 ("September Notes"). The September Notes are convertible, at the option of the holder, into common stock at a price equal to \$92.26 per share, subject to adjustment under certain circumstances. The September Notes bear an interest rate of 5% per annum, and the Company is required to make semi-annual interest payments on the outstanding principal balance of the notes on March 19 and September 19 of each year. The September Notes are redeemable by the Company at any time on or after September 19, 2003 at specific redemption prices if the closing price of the Company's common stock exceeds 120% of the conversion price then in effect for at least 20 trading days within a period of 30 consecutive trading days. Before September 19, 2003, the Company may redeem the notes at a redemption price equal to the principal amount of notes, plus accrued and unpaid interest, if any, and a specified additional payment amount, if the closing price of the Company's common stock exceeds 150% of the conversion price then in effect for at least 20 trading days within a period of 30 consecutive trading days. The deferred costs associated with the sale of the convertible notes, which are classified as long-term other assets, were \$9,297,000 of which \$1,401,000, \$1,498,000 and \$420,000 was amortized to interest expense in 2002, 2001 and 2000, respectively.

In October 2001, the Company re-purchased \$30,000,000 in principal amount of the September Notes for cash consideration of \$18,900,000. As a result of this transaction the Company recorded a gain on the early extinguishment of debt of \$10,340,000, net of \$760,000 of deferred debt costs in the fourth quarter of 2001. At December 31, 2002, the September Notes had an outstanding balance of \$315,000,000 and a fair value of \$236,840,000 as obtained from a quoted market source.

#### **M. Income Taxes**

For the year ended December 31, 2002, the Company provided approximately \$276,000 for income taxes which was recorded in Other expense net on the Consolidated Statement of Operations. The provision principally relates to certain foreign obligations. The Company's federal statutory income tax rate for 2002, 2001 and 2000 was 34%. The Company has incurred losses from operations but has not recorded an income tax benefit for 2002, 2001 and 2000 as the Company has recorded a valuation allowance against its net operating losses and other net deferred tax assets due to uncertainties related to the realizability of these tax assets.

Deferred tax liabilities and assets are determined based on the difference between financial statement and tax bases using enacted tax rates in effect for the year in which the differences are expected to reverse. The components of deferred taxes at December31 were as follows (in thousands):

|                                      | 2002       | 2001       |
|--------------------------------------|------------|------------|
| Deferred Tax Assets:                 |            |            |
| Net operating loss                   | \$ 207,691 | \$ 151,168 |
| Tax credits carryforward             | 23,471     | 26,512     |
| Property, plant and equipment        | 6,400      | 3,984      |
| Deferred revenue                     | 1,690      | 7,442      |
| Capitalized research and development | 43,193     | 44,297     |
| Other                                | 2,688      | 1,918      |
| Gross deferred tax asset             | 285,133    | 235,321    |
| Valuation allowance                  | (274,075 ) | (224,263 ) |
| Deferred Tax Liabilities:            |            |            |
| Gain on Investment                   | (11,058 )  | (11,058 )  |
| Net deferred tax asset               | \$ —       | \$ —       |

Of the \$274,075,000 valuation allowance at December31, 2002, \$101,254,000 relates to deductions for nonqualified stock options, which will be credited to additional paid-in capital, if realized.

For federal income tax purposes, as of December31, 2002, the Company has net operating loss carryforwards of approximately \$533,697,000 and \$14,495,000 of tax credits, which may be used to offset future income. These operating loss carryforwards expire beginning in 2005, and the tax credit carryforwards begin to expire in 2004. A valuation allowance has been established for the full amount of the 2002 deferred tax asset since it is more likely than not that the deferred tax asset will not be realized.



## N. Common and Preferred Stock

### *Common Stock*

In August 2000, the Company effected a two-for-one stock split of all common stock in the form of a stock dividend. All common stock share and per share amounts in these consolidated financial statements have been restated to reflect this stock split.

### *Stock Option Plans*

The Company has a 1991 Stock Option Plan (the "1991 Plan"), a 1994 Stock and Option Plan (the "1994 Plan") and a 1996 Stock and Option Plan (the "1996 Plan"). Stock options may be granted under the Plans either as options intended to qualify as "incentive stock options" ("ISOs") under the Internal Revenue Code or as non-qualified stock options ("NQSOs"). Under the 1991 Plan, stock options may be granted to employees (including officers and directors who are employees) and to consultants of the Company (NQSOs only). Under the 1994 Plan and the 1996 Plan, stock rights, which may be (i) ISOs when Internal Revenue Code requirements are met, (ii) NQSOs, or (iii) shares of common stock or the opportunity to make a direct purchase of shares of common stock ("Stock Awards"), may be granted to employees (including officers and directors who are employees), consultants, advisors and non-employee directors (NQSOs and stock awards only). Under the 1991 and 1994 Plans ISOs may be granted at a price not less than the fair market value of the common stock on the date of the grant, and NQSOs may be granted at an exercise price established by the Compensation Committee of the Board of Directors, which may be less than, equal to or greater than the fair value of the common stock on the date of the grant. Stock options granted under the 1996 Plan may not be granted at a price less than the fair market value of the common stock on the date of grant. Vesting is ratable periods for all plans are generally four or five years, and are determined by the Compensation Committee. ISOs granted under the Plans must expire not more than ten years from the date of grant.

In July 2001, in connection with the acquisition of Aurora, the Company assumed the obligations under the Aurora 1996 Stock Plan (the "Aurora Stock Plan"), the 1993 Stock Plan of PanVera Corporation (the "PanVera Plan") and certain non-plan stock option agreements ("Non-Plan Stock Option Agreements") under which 2,393,000, 109,000, 3,000 shares of Vertex's common stock, respectively, were reserved for issuance at December 31, 2001.

The Company has reserved 8,000,000 shares under the 1991 Plan and 1994 Plan. The 1996 Plan reserved an additional 22,000,000 shares, of which 5,500,000 were reserved during 2001 and 6,000,000 were reserved in 2002. At December 31, 2002, the Company had a total of 7,567,000 shares of common stock available for future grant under its 1991, 1994 and 1996 stock option plans. No shares remain available for grant under the Aurora Stock Plan, the PanVera Plan or Non-Plan Stock Option Agreements.

Consolidated stock option activity for the years ended December 31, 2002, 2001 and 2000 is as follows (shares in thousands):

|  | 2002     |                                 | 2001     |                                 | 2000     |                                 |
|--|----------|---------------------------------|----------|---------------------------------|----------|---------------------------------|
|  | Shares   | Weighted Average Exercise Price | Shares   | Weighted Average Exercise Price | Shares   | Weighted Average Exercise Price |
| Outstanding at beginning of year                               | 16,810   | \$ 27.37                        | 14,615   | \$ 25.97                        | 15,806   | \$ 11.49                        |
| Granted  | 2,952    | 17.49                           | 4,451    | 28.98                           | 3,703    | 67.79                           |
| Exercised  | (944 )   | 10.43                           | (1,401 ) | 11.65                           | (4,446 ) | 10.25                           |
| Canceled   | (1,753 ) | 36.44                           | (855 )   | 38.58                           | (448 )   | 16.51                           |
| Outstanding at end of year                                     | 17,065   | \$ 25.73                        | 16,810   | \$ 27.37                        | 14,615   | \$ 25.97                        |
| Options exercisable at year-end                                | 9,566    | \$ 22.85                        | 7,476    | \$ 19.04                        | 5,874    | \$ 11.56                        |
| Weighted average fair value of options granted during the year |          | \$ 11.60                        |          | \$ 14.97                        |          | \$ 37.04                        |

The fair value of each option granted under the 1991, 1994 and 1996 plans during 2002, 2001 and 2000 was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

|                         | 2002    | 2001    | 2000    |
|-------------------------|---------|---------|---------|
| Expected life (years)   | 5.50    | 5.50    | 5.50    |
| Expected volatility     | 75.00 % | 58.00 % | 58.00 % |
| Risk free interest rate | 4.18 %  | 4.86 %  | 5.63 %  |
| Dividend yield          | —       | —       | —       |

The fair value of each option granted under the Aurora Stock Plan, PanVera Plan and Non-plan Stock Option Agreements during 2001 and 2000 was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

|                         | 2001    | 2000     |
|-------------------------|---------|----------|
| Expected life (years)   | 5.50    | 5.00     |
| Expected volatility     | 93.00 % | 100.00 % |
| Risk free interest rate | 4.35 %  | 4.69 %   |
| Dividend yield          | —       | —        |

The following table summarizes information about stock options outstanding and exercisable at December 31, 2002 (shares in thousands):

| Range of Exercise Prices | Number Outstanding | Options Outstanding                         |                                 | Options Exercisable |                                 |
|--------------------------|--------------------|---|---------------------------------|---------------------|---------------------------------|
|                          |                    | Weighted Average Remaining Contractual Life | Weighted Average Exercise Price | Number Exercisable  | Weighted Average Exercise Price |
| \$0.15-\$9.50            | 1,907              | 2.29  | \$ 7.90                         | 1,882               | \$ 7.89                         |
| 9.68-13.11               | 2,690              | 6.46  | \$ 12.00                        | 1,874               | \$ 11.72                        |
| 13.17-13.67              | 1,806              | 5.37  | \$ 13.64                        | 1,625               | \$ 13.64                        |
| 13.69-15.56              | 1,137              | 4.36  | \$ 15.29                        | 1,094               | \$ 15.32                        |
| 15.57-15.87              | 1,961              | 9.51  | \$ 15.87                        | 115                 | \$ 15.84                        |
| 15.88-24.65              | 1,405              | 7.91  | \$ 19.28                        | 612                 | \$ 18.99                        |
| 24.66-24.68              | 2,212              | 8.94  | \$ 24.66                        | 452                 | \$ 24.66                        |
| 24.69-65.93              | 1,815              | 8.13  | \$ 41.50                        | 956                 | \$ 45.10                        |
| 66.74-70.75              | 1,730              | 7.92  | \$ 70.70                        | 704                 | \$ 70.70                        |
| 71.62-197.59             | 402                | 7.56  | \$ 97.69                        | 252                 | \$ 100.21                       |
| \$0.15-\$197.59          | 17,065             | 6.88  | \$ 25.73                        | 9,566               | \$ 22.85                        |

### *Stock Based Compensation*

The Company records and amortizes over the related vesting periods deferred compensation representing the difference between the exercise price of stock options granted or the price per share of restricted stock issued and the fair value of the Company's common stock at the date of grant or issuance. Amortization of deferred compensation expense of \$20,000, \$154,000 and \$637,000 was recognized during 2002, 2001 and 2000, respectively.

Compensation cost, calculated using a Black-Scholes option pricing model, recognized in connection with the issuance of stock options to nonemployees was \$292,000, \$320,000 and \$372,000 in 2002, 2001 and 2000, respectively.

### *Employee Stock Purchase Plans*

On July 1, 1992, Vertex adopted the Vertex Pharmaceuticals Incorporated Employee Stock Purchase Plan (the "Vertex Purchase Plan"). On May 17, 2002 at the Company's annual meeting the shareholders approved certain amendments to the Vertex Purchase Plan. One of the amendments reserved an additional 600,000 shares for issuance under the Vertex Purchase Plan. The Vertex Purchase Plan permits eligible employees to enroll in a twelve month offering period comprising two six month purchase periods to purchase shares of the Company's common stock, through payroll deductions, at a price equal to 85% of the fair market value of the common stock on the first day of the applicable twelve month offering period or the last day of the applicable six month purchase period, whichever is lower. In September, 2002, the Vertex Purchase Plan further was amended by the Company's Board of Directors to make certain changes to the administration of the Purchase Plan.

In connection with the acquisition of Aurora in July 2001, the Company assumed the obligations under the Aurora Employee Stock Purchase Plan (the "Aurora Purchase Plan"). The Aurora Purchase Plan provided for all eligible employees to purchase the Company's common stock, through payroll withholdings, at a price of 85% of the lesser of fair market value on the start date of each overlapping

two-year offering period or on the date on which each semi-annual purchase period ends. The Aurora Purchase Plan was terminated in the second quarter of 2002 following a semi-annual purchase.

During 2002, 2001, and 2000 the following shares were issued to employees under the Vertex Purchase Plan (shares in thousands):

|                    | 2002     | 2001     | 2000    |
|--------------------|----------|----------|---------|
| Number of shares   | 220      | 155      | 289     |
| Average price paid | \$ 15.85 | \$ 20.54 | \$ 9.50 |

Had the Company adopted SFAS123, the weighted average fair value of each purchase right granted during 2002, 2001 and 2000 would have been \$6.04, \$7.45 and \$5.93, respectively. The fair value was estimated at the beginning of the withholding period using the Black-Scholes option-pricing model with the following weighted average assumptions:

|                         | 2002    | 2001    | 2000    |
|-------------------------|---------|---------|---------|
| Expected life (years)   | .50     | .50     | .50     |
| Expected volatility     | 75.00 % | 58.00 % | 58.00 % |
| Risk free interest rate | 1.53 %  | 2.97 %  | 5.98 %  |
| Dividend yield          | —       | —       | —       |

### *Rights*

Each holder of a share of outstanding Common Stock also holds one share purchase right (a "Right") for each share of Common Stock. Each Right entitles the holder to purchase from the Company one half of one-hundredth of a share of SeriesA junior participating preferred stock, \$0.01 par value (the "Junior Preferred Shares"), of the Company at a price of \$135 per one half of one-hundredth of a Junior Preferred Share (the "Purchase Price"). The Rights are not exercisable until the earlier of acquisition by a person or group of 15% or more of the outstanding Common Stock (an "Acquiring Person") or 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. In the event that any person or group becomes an Acquiring Person, each holder of a Right other than 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. Under certain specified circumstances, 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 half of 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, the Board of Directors of the Company may redeem the Rights in whole at a price of \$0.01 per Right.

### *Common Stock Reserved for Future Issuance*

At December 31, 2002, the Company has reserved shares of common stock for future issuance as follows (shares in thousands):

|   |        |
|---|--------|
| Common stock under stock option plans       | 24,632 |
| Common stock under the Vertex Purchase Plan | 628    |
| Common stock under the Vertex 401(k) Plan   | 75     |
| Total                                       | 25,335 |

### **O. Significant Revenue Arrangements**

The Company has formed strategic collaborations with major pharmaceutical companies in the areas of drug discovery and development, assay development, screening services and instrumentation products. Research and development agreements provide the Company's Pharmaceuticals business with financial support and other valuable resources for research programs and development of clinical drug candidates, product development and marketing and sales of products. Assay development, screening services and instrumentation contracts provide contracted revenue to the Discovery Tools and Services business.

#### *Collaborative Research and Development Agreements*

In the Company's collaborative research and development programs the Company seeks to discover, develop and commercialize major pharmaceutical products in conjunction with and supported by our collaborators. Collaborative research and development arrangements provide research funding over an initial contract period with renewal and termination options that vary by agreement. The agreements also include milestone payments based on the achievement or the occurrence of a designated event. The agreements may also contain development reimbursement provisions, royalty rights or profit sharing rights and manufacturing options. The terms of each agreement vary. The Company has entered into significant research and development collaborations with large pharmaceutical companies.

#### *Novartis*

In May 2000, the Company and Novartis Pharma AG ("Novartis") entered into an agreement to collaborate on the discovery, development and commercialization of small molecule drugs directed at targets in the kinase protein family. Under the agreement, Novartis agreed to pay the Company approximately \$600,000,000 in pre-commercial payments, comprised of an up-front payment of \$15,000,000 made upon signing of the agreement, up to \$200,000,000 in product research funding over six years and up to approximately \$400,000,000 in further license fees, milestone payments and cost reimbursements. These further amounts are based on the development of eight drug candidates. The Company is responsible for drug discovery and clinical proof-of-concept testing of all drug candidates. Under the agreement, Novartis has also created a \$200,000,000 loan facility to support certain clinical studies, which the Company may draw down in amounts up to \$25,000,000 for each drug candidate. The loans are interest free and Novartis will forgive the full amount of any advances with respect to a particular drug candidate if Novartis accepts the drug candidate for development under the agreement. In the fourth quarter of 2002 the Company drew down \$5,000,000 under this loan facility. Novartis has exclusive worldwide development, manufacturing and marketing rights to clinically and commercially

relevant drug candidates that it accepts from the Company for development. Vertex will receive royalties on any products that are marketed as part of the collaboration. Subject to certain conditions, the Company will have co-promotion rights in the United States and Europe. Upon one year's written notice, Novartis may terminate this agreement without cause effective no earlier than May 2004. In 2002, 2001 and 2000 the Company recognized approximately \$41,894,000, \$36,723,000 and \$27,910,000, respectively, in revenue under this agreement.

#### *GlaxoSmithKline*

In December 1993, The Company and GlaxoSmithKline ("GSK") entered into a collaborative agreement to research, develop and commercialize HIV protease inhibitors, including Agenerase (amprenavir), 908 (an amprenavir prodrug) and VX-385, a chemically distinct protease inhibitor. Under the collaborative agreement, GSK agreed to pay the Company up to \$42,000,000 comprised of an up-front \$15,000,000 license payment made in 1993, \$14,000,000 of product research funding over five years and \$13,000,000 of development and commercialization milestone payments for an initial drug candidate. Research funding under this agreement ended on December 31, 1998 and Vertex has received the entire \$42 million referenced above. GSK is also obligated to pay additional development and commercialization milestone payments for subsequent drug candidates, including 908 and VX-385. In the fourth quarter of 2002 GSK paid the Company a milestone payment of \$1,500,000 for the submission of a new drug application for market approval of 908 in the United States and European Union. GSK is required to bear the costs of development in its territory of drug candidates under the collaboration. GSK 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. In 1999, the Company began earning a royalty from GSK from sales of Agenerase. The Company has retained certain bulk drug manufacturing rights and certain co-promotion rights in territories licensed to GSK. GSK has the right to terminate its arrangement with the Company without cause upon twelve months' notice. Termination of the agreement by GSK will relieve it of its obligation to make further commercialization and development milestone and royalty payments and will end any license granted to GSK by Vertex under the agreement. Revenues and royalties earned from GSK were \$12,039,000, \$11,211,000, and \$15,646,000 in 2002, 2001 and 2000, respectively.

In June 1996, the Company and GSK obtained a worldwide, non-exclusive license under certain G.D. Searle & Co. ("Searle") patent applications in the area of HIV protease inhibition. The Company pays Searle a royalty based on sales of Agenerase.

#### *Aventis S.A.*

In September 1999, the Company and Aventis S.A. ("Aventis"), formerly Hoechst Marion Roussel Deutschland GmbH ("HMR"), entered into an expanded agreement covering the development of pralnacasan, an orally active inhibitor of interleukin-1 beta converting enzyme ("ICE"). Under the agreement, Aventis agreed to pay the Company a \$20,000,000 up-front payment for prior research costs, and up to \$62,000,000 in milestone payments for successful development by Aventis of pralnacasan in rheumatoid arthritis, the first targeted indication. Milestone payments are also due for each additional indication. The research collaboration under this agreement ended in 1997. Aventis has an exclusive worldwide license to develop, manufacture and market pralnacasan. Aventis will fund the development of pralnacasan. Vertex may co-promote pralnacasan in the U.S. and Europe. Vertex will receive reimbursement of certain co-promotion expenses and royalties on global sales, if any. Aventis may terminate this agreement without cause upon six months' written notice. Termination by Aventis will end any license granted to Aventis by Vertex under the agreement. Collaborative and other

research and development revenues earned under the agreement was \$10,000,000 in 2000. The Company did not earn any revenue in connection with the Aventis collaboration in 2002 or 2001.

*Kissei Pharmaceutical Co.Ltd.*

*P38 MAP Kinase.* The Company and Kissei Pharmaceutical Co.,Ltd. ("Kissei") entered into an agreement in September 1997 to collaborate on the identification of inhibitors of p38 MAP kinase and the development of those compounds as novel, orally active drugs for the treatment of inflammatory and neurological diseases. Under the terms of the agreement, Kissei agreed to pay the Company up to \$22,000,000 comprised of an up-front \$4,000,000 license payment, \$11,000,000 of product research funding over three years and \$7,000,000 of development and commercialization milestone payments. Research funding ended under this program on June30, 2000 and the Company has received the full amount of research funding specified under the agreement. Under this agreement, Kissei has exclusive rights to develop and commercialize VX-702 in Japan and various Southeast Asian countries, and semi-exclusive rights in China, Taiwan and South Korea. The Company retains exclusive marketing rights in the United States, Canada, Europe and the rest of the world. In addition, the Company will have the right to supply bulk drug material to Kissei for sale in its territory and will receive royalties and drug supply payments on future product sales, if any. Kissei agreed to pay certain development costs. Kissei has the right to terminate the agreement without cause upon six months' notice. In 2002, 2001 and 2000, approximately \$4,565,000, \$6,248,000, and \$5,615,000, respectively, was recognized as revenue under the p38 MAP kinase research and development program.

*HIV Protease Inhibitors.* The Company and Kissei are collaborating in the development and commercialization of amprenavir. Under the collaborative agreement, Kissei agreed to pay the Company up to \$20,000,000, comprised of \$9,800,000 of product research funding through 1995, \$7,000,000 of development milestone and territory option payments and a \$3,200,000 equity investment upon signing the agreement. The Company has received the full amount of research funding specified under the agreement. Under the collaboration, Kissei has exclusive rights to develop and commercialize amprenavir in Japan and pays Vertex a royalty on sales. Vertex is responsible for the manufacture of bulk drug substance for Kissei. Revenue earned under the Kissei agreement in 2002, 2001 and 2000 were \$9,000, \$1,157,000, and \$7,000, respectively.

*Eli Lilly & Company*

The Company and Eli Lilly and Company ("Lilly") entered into a collaborative agreement to design inhibitors of the hepatitis C protease enzyme for development as novel drugs to treat hepatitis C infection. Under the terms of the agreement, Lilly agreed to pay the Company up to \$51,000,000 comprised of an up-front \$3,000,000 payment paid in June1997, \$33,000,000 of product research funding over six years and \$15,000,000 of development and commercialization milestone payments.

In December2001 the Company and Lilly selected VX-950, a novel, oral hepatitisC viral protease inhibitor, for development and Lilly paid the Company a \$5,000,000 selection milestone. In December2002 Vertex and Lilly restructured the agreement. Pursuant to the restructured agreement, the research and development agreement between the Company and Lilly concluded in the fourth quarter of 2002, rather than in June 2003, as provided in the original agreement. The Company recognized the remaining revenue for the selection milestone for VX-950 and for the upfront research payment of \$1,637,324 and \$19,025, respectively. Vertex will lead development and commercialization of VX-950 and has obtained the worldwide rights to other compounds identified during the collaboration. Lilly will retain a financial interest in VX-950 and other HCV protease compounds through royalties

on future net product sales. Revenue recognized in connection with the HCV Protease program under the Lilly contract was \$12,054,000, \$6,686,000, and \$5,948,000 in 2002, 2001, and 2000, respectively.

*Taisho Pharmaceutical Co.,LTD and Serono S.A.*

In November 1999, the Company and Taisho Pharmaceutical Co.,LTD ("Taisho") entered into an agreement to collaborate on the discovery, development and commercialization of caspase inhibitors for the treatment of cerebrovascular, cardiovascular and neurodegenerative diseases. Under the agreement, Taisho had an option to obtain marketing rights in Japan and certain Far East markets for any compounds arising from the collaboration. Taisho agreed to pay the Company up to \$43,000,000 in pre-commercial payments, comprised of research funding and milestone payments, including a \$4,500,000 up-front payment for prior research costs. These amounts are based on the development of two compounds. In the third quarter of 2002, research funding under the Company's collaboration with Taisho concluded. The Company received and recognized as revenue the full amount of research funding specified under the agreement. Taisho has not elected to bring any compounds into development in its territory and its development option under the agreement has expired.

In December 2000, the Company and Serono S.A. ("Serono") entered into an agreement to collaborate on the discovery, development, and commercialization of caspase inhibitors. Under the agreement, the Company could receive up to \$95,000,000 in pre-commercial payments, comprised of \$5,000,000 in up-front payments for prior research, up to \$20,000,000 in product research funding over five years and up to \$70,000,000 in further license fees and milestone payments. These amounts are based on the development of more than one drug candidate. The two companies will share development costs. Vertex has the option to establish a joint venture with Serono for the commercialization of products in North America, where the two companies will share marketing rights and profits from the sale of drug products, if any. Serono will have exclusive rights to market caspase inhibitors in other territories, excluding Japan and certain other countries in the Far East, and will pay Vertex for the supply of drug substance. Serono has the right to terminate the agreement without cause upon 90 days written notice, effective at July 1, 2004.

In 2002, 2001 and 2000, the Company recognized approximately \$9,468,000, \$10,385,000 and \$6,974,000 as revenue, respectively, from Taisho and Serono under the caspase program.

*Schering AG*

In August 1998 the Company and Schering AG, Germany ("Schering") entered into an agreement to collaborate on the research, development and commercialization of novel, orally active neurophilin ligand compounds to promote nerve regeneration for the treatment of a number of neurological diseases. Under the terms of the agreement, Schering agreed to pay the Company up to \$88,000,000 comprised of \$6,000,000 up-front payment made upon signing in September 1998, \$22,000,000 of product research funding over five years and up to \$60,000,000 of development and commercialization milestone payments. Research funding under the agreement concluded in the fourth quarter of 2002 and the Company has received the full amount of funding specified under the agreement. Under terms of the agreement, Schering has an option, exercisable until February 24, 2004, to designate a compound or compounds for development, after which Vertex and Schering will have an equal role in management of product development. In North America, Vertex will have manufacturing rights, and Vertex and Schering will share equally in the marketing expenses and profits from commercialized compounds. In addition to having manufacturing rights in North America, the Company retains the option to manufacture bulk drug substance for sales and marketing in territories outside Europe, the



Middle East and Africa. Schering will have the right to manufacture and market any commercialized compounds in Europe, the Middle East and Africa, and will pay Vertex a royalty on product sales, if any. Schering has the right to terminate the agreement without cause upon six months' written notice. The Company recognized \$5,000,000, \$5,000,000 and \$6,027,000 as revenue under the Schering agreement in 2002, 2001 and 2000, respectively.

*Assay Development, Screening Services and Instrumentation Agreements*

PanVera LLC has certain contracts under which it agrees to sell instrumentation systems and technology licenses, in addition to providing assay development and screening services. Each of these separable elements may be individually delivered and are not considered essential to the functionality of one another. The Company allocates revenue under such contracts to each of the separable elements based on its relative fair value which under most of our agreements approximates the stated price in the contract. Most of the Company's obligations to provide assay development and screening services are winding down, and were assigned to Invitrogen Corporation in connection with the sale of certain assets of PanVera LLC on March 28, 2003. The Company will continue to sell instrumentation systems, but does not plan to enter into future agreements to provide assay development or screening services.

*Pfizer and Warner-Lambert (acquired by Pfizer in 2000)*

Prior to the acquisition of Warner-Lambert by Pfizer in 2000 the Company had separate contracts with each company. Following the acquisition, the Company continued to deliver on the individual contracts until the contracts were amended and consolidated in 2001. The revenues recognized from such contracts for 2002, 2001 and 2000 are as follows:

|  | 2002           | 2001      | 2000      |
|--|----------------|-----------|-----------|
|  | (In thousands) |           |           |
| Pfizer   |                |           |           |
| Product sales (instrumentation and technology licensing) | \$ 13,314      | \$ 12,298 | \$ 15,955 |
| Assay development and screening services                 | —              | 6,357     | 2,877     |
| Warner-Lambert   |                |           |           |
| Product sales (instrumentation and technology licensing) | —              | 4,926     | 4,739     |
| Assay development and screening services                 | —              | 55        | 2,125     |
|  | \$ 13,314      | \$ 23,636 | \$ 25,696 |

## P. Employee Benefits

The Company has a 401(k) retirement plan (the "Vertex 401(k) Plan") in which substantially all of its permanent employees are eligible to participate. Participants may contribute up to 20% of their annual compensation to the plan, subject to statutory limitations. The Company may declare discretionary matching contributions to the Vertex 401(k) Plan which are payable in the form of Company shares. The match is paid in fully vested Company shares and employees have the ability to transfer funds from Company stock as they choose. The Company declared matching contributions to the Vertex 401(k) Plan as follows (in thousands, except share data):

|  | 2002     | 2001     | 2000     |
|--|----------|----------|----------|
| Discretionary matching contributions for the year ended December 31, | \$ 2,558 | \$ 1,399 | \$ 1,148 |
| Shares issued for the year ended December 31,                        | 104,344  | 15,215   | 20,880   |
| Shares issuable as of the year ended December 31,                    | 64,931   | 32,284   | 10,000   |

In connection with the acquisition of Aurora in July 2001, the Company assumed the Aurora 401(k) Retirement Savings Plan and 401(k) Profit Sharing Plan Trust (collectively, the "Aurora Plan") covering substantially all employees of Aurora and its wholly-owned subsidiaries who have completed certain service requirements. Effective April 1, 2002, the Aurora plan was merged into the Vertex 401(k) Plan, and all employees eligible to participate in the Aurora plan were offered eligibility to participate in the Vertex 401(k) Plan. Participants in the Aurora Plan contributed a portion of their compensation to the Aurora Plan through payroll deductions. Company-paid Aurora Plan matching contributions, if any, were determined by the Company at its sole discretion and payable in the form of cash. The Company's cash contributions under the Aurora Plan totaled \$77,000, \$453,000 and \$338,000 in 2002, 2001 and 2000, respectively.

## Q. Related Party Transactions

As of December 31, 2002, the Company had a loan outstanding to an officer in the amount of \$103,486. A second installment in the amount of \$125,000 will be paid to the officer in 2003 as part of the loan agreement. The loan is interest free and will be forgiven prorated over a four-year term.

A sibling of the Company's Chairman and Chief Executive Officer was a partner in a law firm representing the Company to which \$200,000 and \$736,000 in legal fees were paid in 2001 and 2000, respectively. As of September 24, 2001 he was no longer a partner with that firm and was hired as Senior Vice President and General Counsel of Vertex.

As of December 31, 2001, the Company had a loan outstanding to a director in the amount of \$132,000. The loan was interest free and was forgiven in January 2002 as a result of a retention and non-compete agreement executed by the Company in April 2001.

In 2001, the Company entered into a 4-year consulting agreement with a director of the Company for the provision of part-time consulting services over a period of four years at \$80,000 per year, commencing in January 2002.

In April 2001, Aurora entered into an agreement with a customer, which included assay development services, product sales and licenses combined with the purchase of stock in the customer. At the time of the transaction, the Chief Executive Officer of the customer was a director of Aurora. As of July 18, 2001, following the acquisition of Aurora by Vertex, the Chief Executive Officer of the customer was no longer a director of Aurora. The total investment in the customer was approximately \$4,120,000 at December 31, 2002 and represented approximately 10% of the outstanding equity interest

of the customer. The stock in the customer was transferred to Invitrogen Corporation in connection with the sale of certain of assets of PanVera LLC on March 28, 2003. The Company believes that the amounts charged by the Company for services, products and licenses are comparable to what the Company would have charged had it not purchased the stock in the customer and had the former director of Aurora not been affiliated with the customer. The investment is accounted for using the cost method and is included in Investments on the balance sheet. Total revenue recognized from this agreement was \$3,035,000 and \$3,348,000 in 2002 and 2001, respectively.

#### **R. Subsequent Event**

On February 4, 2003, the Company announced that it had signed a definitive agreement whereby Invitrogen Corporation agreed to acquire certain of PanVera LLC's assets, including certain biochemical and cellular assay capabilities and its commercial portfolio of proprietary reagents, probes and proteins, for approximately \$95 million in cash and to assume certain liabilities. PanVera LLC is included in the Company's Discovery Tools and Services business segment and provides services and products that accelerate the discovery of new medicines by the pharmaceutical and biopharmaceutical industries. The sale does not include the instrumentation assets of the Discovery Tools and Services business segment. In connection with the sale Vertex has agreed with Invitrogen that we may use in our drug discovery activities, but will not engage for a term of five years in the business of providing, reagents, probes or assay development services. We will also purchase a minimum of \$3 million of products annually from Invitrogen for three years after the completion of the sale. The transaction closed on March 28, 2003.

The Company expects to record a gain on the sale of these net assets in excess of \$75 million (unaudited) in conjunction with the closing of the transaction. The expected gain on the sale is net of transaction costs.

#### **S. Contingencies**

Chiron Corporation filed suit on July 30, 1998 against Vertex and Eli Lilly and Company in the United States District Court for the Northern District of California, alleging infringement by the defendants of three U.S. patents issued to Chiron. The infringement action relates to research activities by the defendants in the hepatitis C viral protease field and the alleged use of inventions claimed by Chiron in connection with that research. Chiron has requested damages in an unspecified amount, as well as an order permanently enjoining the defendants from unlicensed use of the claimed Chiron inventions. During 1999, Chiron requested and was granted a reexamination by the U.S. Patent and Trademark Office of all three of the patents involved in the suit. Chiron also requested and, over the opposition of Vertex and Eli Lilly, was granted a stay in the infringement lawsuit, pending the outcome of the patent re-examination. That reexamination proceeding is still on-going and the stay is still in effect. However, a Reexamination Certificate has been issued in two of the three Chiron patents involved and a Notice of Intent to Issue a Reexamination Certificate has been issued with respect to the third patent. While the length of the stay and the final outcome of the lawsuit cannot be determined, Vertex maintains that Chiron's claims are without merit and intends to defend the lawsuit, if and when it resumes, vigorously.

On December 7, 2001 Oregon Health Sciences University filed suit against Vertex in the District Court of Oregon. The complaint in the suit seeks to name Dr. Bruce Gold, an employee of Oregon Health Sciences University, as an inventor and Oregon Health Sciences University as part owner of five of Vertex's neurophilin patents, and associated damages. One of the five patents has recently been

removed from the suit on a motion by Vertex. The suit stems from assays run on Vertex compounds by Dr. Gold under a sponsored research agreement in 1996. The Company has investigated the inventorship on these patents and believes that Dr. Gold is not an inventor, Oregon Health Sciences has no ownership interest in any of these patents, and that the claims made in this complaint are without merit. Vertex intends to contest this claim vigorously.

## **Guarantees**

As permitted under Massachusetts law, Vertex's Articles of Organization and Bylaws provide that the Company will indemnify certain of its officers and directors for certain claims asserted against them in connection with their service as an officer or director. The maximum potential amount of future payments that the Company could be required to make under these indemnification provisions is unlimited. However, the Company has purchased certain directors' and officers' liability insurance policies that reduce its monetary exposure and enable it to recover a portion of any future amounts paid. The Company believes the estimated fair value of these indemnification arrangements is minimal.

Vertex customarily agrees in the ordinary course of its business to indemnification provisions in agreements with clinical trials investigators in its drug development programs, in sponsored research agreements with academic and not-for-profit institutions, in various comparable agreements involving parties performing services for the Company in the ordinary course of business, and in its real estate leases. The Company also customarily agrees to certain indemnification provisions in its drug discovery and development collaboration agreements. With respect to the Company's clinical trials and sponsored research agreements, these indemnification provisions typically apply to any claim asserted against the investigator or the investigator's institution relating to personal injury or property damage, violations of law or certain breaches of the Company's contractual obligations arising out of the research or clinical testing of the Company's compounds or drug candidates. With respect to lease agreements, the indemnification provisions typically apply to claims asserted against the landlord relating to personal injury or property damage caused by the Company, to violations of law by the Company or to certain breaches of the Company's contractual obligations. The indemnification provisions appearing in the Company's collaboration agreements are similar, but in addition provide some limited indemnification for its collaborator in the event of third party claims alleging infringement of intellectual property rights. In each of the cases above, the term of these indemnification provisions generally survives the termination of the agreement, although the provision has the most relevance during the contract term and for a short period of time thereafter. The maximum potential amount of future payments that the Company could be required to make under these provisions is generally unlimited. Vertex has purchased insurance policies covering personal injury, property damage and general liability that reduce our exposure for indemnification and would enable us in many cases to recover a portion of any future amounts paid. The Company has never paid any material amounts to defend lawsuits or settle claims related to these indemnification provisions. Accordingly, the Company believes the estimated fair value of these indemnification arrangements is minimal.

As discussed elsewhere in this report, effective on March 28, 2003 the Company sold certain assets of PanVera LLC to Invitrogen Corporation for approximately \$95 million. The agreement with Invitrogen requires the Company to indemnify Invitrogen against any loss which it may suffer by reason of our breach of certain representations and warranties, or our failure to perform certain covenants, contained in the agreement. The representations, warranties and covenants are of a type customary in agreements of this sort. The Company's aggregate obligations under the indemnity are, with a few exceptions which the Company believes are not material, capped at one-half of the purchase price, and

apply to claims under representations and warranties made within fifteen months after closing, although there is no corresponding time limit for claims made based on breaches of covenants.

## T. Segment Information

The Company has two operating segments: (i)Pharmaceuticals and (ii)Discovery Tools and Services. The Company's Pharmaceuticals business seeks to discover, develop and commercialize major pharmaceutical products independently and with partners. The Company's Discovery Tools and Services business specializes in assay development, screening services, instrumentation and the manufacture and sale of proteins and reagents. Please refer to NoteR: "Subsequent Event" for disclosure describing the sale of certain assets of the Discovery Tools and Services business.

The accounting policies of the segments are described in the summary of significant accounting policies (NoteB). The Company evaluates segment performance based on loss before merger related charges, debt conversion costs, the cumulative effects related to changes in accounting principles and gains(losses) on the retirement of convertible subordinated notes. The Company does not evaluate segment performance based on the segment's total assets and therefore the Company's assets are not reported by segment. The following table presents, by segment, the results of operations for the year ended December31, 2002. For the years ended December31, 2001 and 2000 the Company was unable to restate the results of operations into the new operating segments. Thus, for comparative purposes, the table also presents results of operations information for the year ended December31, 2002, 2001 and 2000 by the former segments: Vertex and Aurora.

| (In thousands)                   | Pharmaceuticals | Discovery Tools<br>and Services | Total         |
|----------------------------------|-----------------|---------------------------------|---------------|
| Year Ended December 31, 2002:    |                 |                                 |               |
| Revenues                         | \$ 87,344       | \$ 73,880                       | \$ 161,224    |
| Inter-segment revenue            |                 | (139 )                          | (139 )        |
| Interest income                  | 28,471          | 251                             | 28,722        |
| Interest expense                 | (17,463 )       | (221 )                          | (17,684 )     |
| Depreciation and amortization    | (24,163 )       | (1,269 )                        | (25,432 )     |
| Reportable segment income (loss) | \$ (143,785 )   | \$ 35,164                       | \$ (108,621 ) |

|   | Vertex        | Aurora       | Total         |
|---|---------------|--------------|---------------|
| Year Ended December 31, 2002:   |               |              |               |
| Revenues  | \$ 85,975     | \$ 75,249    | \$ 161,224    |
| Inter-segment revenue   |               | (139 )       | (139 )        |
| Interest income   | 25,415        | 3,307        | 28,722        |
| Interest expense  | (17,285 )     | (399 )       | (17,684 )     |
| Depreciation and amortization   | 18,942        | 6,490        | 25,432        |
| Reportable segment loss   | \$ (106,210 ) | \$ (2,411 )  | \$ (108,621 ) |
| Year Ended December 31, 2001:   |               |              |               |
| Revenues  | \$ 77,408     | \$ 91,370    | \$ 168,778    |
| Inter-segment revenue   | —             | (1,288 )     | (1,288 )      |
| Interest income   | 39,894        | 5,239        | 45,133        |
| Interest expense  | (18,671 )     | (647 )       | (19,318 )     |
| Depreciation and amortization   | (13,534 )     | (4,430 )     | (17,964 )     |
| Equity in losses of unconsolidated subsidiary                             | (662 )        | —            | (662 )        |
| Reportable segment income (loss)  | \$ (56,875 )  | \$ 12,108    | \$ (44,767 )  |
| Year Ended December 31, 2000:   |               |              |               |
| Revenues  | \$ 78,127     | \$ 75,155    | \$ 153,282    |
| Inter-segment revenue   | —             | —            | —             |
| Interest income   | 27,679        | 5,633        | 33,312        |
| Interest expense  | (10,569 )     | (1,084 )     | (11,653 )     |
| Depreciation and amortization   | (9,095 )      | (3,697 )     | (12,792 )     |
| Equity in losses of unconsolidated subsidiary                             | (550 )        | —            | (550 )        |
| Reportable segment income (loss)  | \$ (22,122 )  | \$ 4,918     | \$ (17,204 )  |
|   |               |              |               |
|   | 2002          | 2001         | 2000          |
| Total loss for reportable segments  | \$ (108,621 ) | \$ (44,767 ) | \$ (17,204 )  |
| Merger related charges  | —             | (23,654 )    | —             |
| Debt conversion costs   | —             | —            | (14,375 )     |
| Gain on retirement of convertible subordinated notes                      | —             | 10,340       | —             |
| Cumulative effect of changes in accounting principles—revenue recognition | —             | (25,901 )    | (3,161 )      |
| Cumulative effect of change in accounting principle—derivatives           | —             | 17,749       | —             |
| Total net loss  | \$ (108,621 ) | \$ (66,233 ) | \$ (34,740 )  |

## U. Quarterly Financial Data (unaudited)

(in thousands, except per share data)

|  | Three Months Ended |                  |                   |                  |
|--|--------------------|------------------|-------------------|------------------|
|  | March 31,<br>2002  | June 30,<br>2002 | Sept. 30,<br>2002 | Dec. 31,<br>2002 |
| Pharmaceutical revenues:   |                    |                  |                   |                  |
| Royalties  | \$ 2,474           | \$ 2,384         | \$ 2,610          | \$ 2,741         |
| Collaborative research and development revenues                        | 18,077             | 18,859           | 18,792            | 21,407           |
| Discovery tools and service revenue:                                   |                    |                  |                   |                  |
| Product sales and royalties  | 15,210             | 15,587           | 8,147             | 12,828           |
| Service revenues   | 4,934              | 5,500            | 4,727             | 6,808            |
| Total revenues   | 40,695             | 42,330           | 34,276            | 43,784           |
| Costs and expenses:  |                    |                  |                   |                  |
| Royalty payments   | 817                | 828              | 880               | 909              |
| Cost of product sales and royalties                                    | 4,590              | 2,662            | 2,875             | 3,557            |
| Cost of service revenues   | 3,234              | 2,972            | 2,822             | 2,135            |
| Research and development   | 47,022             | 46,546           | 50,622            | 58,828           |
| Sales, general and administrative                                      | 11,095             | 13,348           | 12,928            | 12,019           |
| Total costs and expenses   | 66,758             | 66,356           | 70,127            | 77,448           |
| Loss from operations   | (26,063 )          | (24,026 )        | (35,851 )         | (33,664 )        |
| Interest income  | 8,458              | 7,467            | 6,811             | 5,986            |
| Interest expense   | (4,450 )           | (4,431 )         | (4,412 )          | (4,391 )         |
| Debt conversion expense  | —                  | —                | —                 | —                |
| Other expense  | (12 )              | (29 )            | —                 | (14 )            |
| Net loss   | \$ (22,067 )       | \$ (21,019 )     | \$ (33,452 )      | \$ (32,083 )     |
| Basic and diluted net loss per common share                            | \$ (0.29 )         | \$ (0.28 )       | \$ (0.44 )        | \$ (0.42 )       |
| Basic and diluted weighted average number of common shares outstanding | 75,161             | 75,660           | 75,979            | 76,287           |

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|   | Three Months Ended                    |                     |                   |                  |
|---|---------------------------------------|---------------------|-------------------|------------------|
|   | March 31,<br>2001(1)                  | June 30,<br>2001(1) | Sept. 30,<br>2001 | Dec. 31,<br>2001 |
|   | (in thousands, except per share data) |                     |                   |                  |
| Pharmaceutical revenues:  |                                       |                     |                   |                  |
| Royalties   | \$ 2,596                              | \$ 2,862            | \$ 2,592          | \$ 3,069         |
| Collaborative research and development revenues                                     | 15,573                                | 16,273              | 17,889            | 19,249           |
| Discovery tools and service revenues:   |                                       |                     |                   |                  |
| Product sales and royalties   | 11,529                                | 15,423              | 13,442            | 19,527           |
| Service revenues  | 5,258                                 | 6,083               | 6,445             | 9,680            |
| Total revenues  | 34,956                                | 40,641              | 40,368            | 51,525           |
| Costs and expenses:   |                                       |                     |                   |                  |
| Royalty payments  | 881                                   | 972                 | 880               | 1,053            |
| Cost of product sales and royalties   | 6,869                                 | 6,828               | 7,318             | 6,074            |
| Cost of service revenues  | 2,790                                 | 2,396               | 3,235             | 4,123            |
| Research and development  | 32,540                                | 34,577              | 38,596            | 44,460           |
| Sales, general and administrative   | 10,948                                | 11,380              | 10,741            | 8,978            |
| Merger related costs  | 1,179                                 | 4,363               | 15,751            | 2,361            |
| Total costs and expenses  | 55,207                                | 60,516              | 76,521            | 67,049           |
| Loss from operations  | (20,251 )                             | (19,875 )           | (36,153 )         | (15,524 )        |
| Interest income   | 13,070                                | 11,768              | 12,223            | 8,072            |
| Interest expense  | (5,003 )                              | (4,879 )            | (4,927 )          | (4,509 )         |
| Gain on retirement of convertible subordinated notes<br>(NoteL)(2)                  | —                                     | —                   | —                 | 10,340           |
| Other expense   | (30 )                                 | (392 )              | (372 )            | (1,639 )         |
| Loss before cumulative effect of changes in accounting principles                   | (12,214 )                             | (13,378 )           | (29,229 )         | (3,260 )         |
| Cumulative effect of changes in accounting principle — revenue recognition (Note C) | (25,901 )                             | —                   | —                 | —                |
| Cumulative effect of changes in accounting principle — derivatives (Note H)         | —                                     | —                   | 17,749            | —                |
| Net loss  | \$ (38,115 )                          | \$ (13,378 )        | \$ (11,480 )      | \$ (3,260 )      |
| Basic and diluted net loss per common share   | \$ (0.52 )                            | \$ (0.18 )          | \$ (0.15 )        | \$ (0.04 )       |
| Basic and diluted weighted average number of common shares outstanding              | 73,922                                | 74,381              | 74,682            | 74,926           |

(1)

Prior 2001 quarterly financial results have been restated for the retroactive adoption of the Substantive Milestone Method of revenue recognition to January 1, 2001. Please refer to "Note C: Change in Accounting Principle—Revenue Recognition" in the notes to the consolidated financial statements for further information.

(2)

In the fourth quarter of 2001, the Company recorded a gain on retirement of convertible subordinated notes related to a buy-back of outstanding debt. In accordance with FAS145 the gain on retirement of convertible subordinated notes is classified as an ordinary item. At the time of the conversion, the gain on retirement of convertible subordinated notes was classified as an extraordinary item. Please refer to "Note B: Accounting Policies" in the notes to the consolidated financial statements for further information.



**EXHIBIT 2.2**

**ASSET PURCHASE AGREEMENT**

**BY AND AMONG**

**VERTEX PHARMACEUTICALS INCORPORATED,**

**PANVERA LLC,**

**AND**

**INVITROGEN CORPORATION**

**FEBRUARY 4, 2003**

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[Vertex shall provide supplementally a copy of any omitted schedule to the Securities and Exchange Commission upon request]



## ASSET PURCHASE AGREEMENT

This ASSET PURCHASE AGREEMENT (the "AGREEMENT") is entered into as of February 4, 2003, by and among Vertex Pharmaceuticals Incorporated, a Massachusetts corporation (the "OWNER"), PanVera LLC, a Delaware limited liability company (the "SELLER") and Invitrogen Corporation, a Delaware corporation (the "BUYER"). The Owner, the Seller and the Buyer are referred to herein individually as a "PARTY" and collectively as the "PARTIES."

### INTRODUCTION

The Seller is engaged in, among other matters, the business of developing, manufacturing and selling life sciences discovery products, probes, proteins and reagents, and assay development services;

The Owner is engaged in, among other matters, the business of discovering, developing and commercializing ethical pharmaceutical products independently and with partners; and

The Buyer desires to purchase from the Seller, and the Seller desires to sell to the Buyer, all of the Seller's right, title and interest in and to substantially all of the assets and properties of the Seller, subject to the assumption by the Buyer of specified related liabilities, upon the terms and conditions set forth herein.

### TERMS

NOW, THEREFORE, in consideration of the representations, warranties, covenants and agreements contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

#### ARTICLE I DEFINITIONS

1.1 DEFINITIONS. Whenever used in this Agreement, the terms defined below shall have the indicated meaning:

"ACCOUNT PARTIES" shall have the meaning set forth in Section 10.1.

"ACCOUNTING FIRM" shall have the meaning set forth in Section 2.2(b)(iii).

"ACQUIRED ASSETS" shall have the meaning set forth in Section 2.1(a).

"ADJUSTMENT AMOUNT" shall have the meaning set forth in Section 2.2(b)(i).

"AFFILIATE" means, with respect to any Person, any Person which directly or indirectly through stock ownership or otherwise either controls, or is controlled by or under common control with, such Person.

"AGREEMENT" shall have the meaning set forth in the preamble.

"AMENDED AND RESTATED TECHNOLOGY AGREEMENTS" shall mean the agreements in the forms attached hereto as Exhibits H-1 through H-11.

"ANCILLARY AGREEMENTS" shall have the meaning set forth in Section 2.3(b).

"APPLICABLE ACCOUNTING PRINCIPLES" means United States generally accepted accounting principles ("GAAP") (applied on a "going concern" basis without reflecting the transactions contemplated under this Agreement).

"APPLICABLE PERMITS" shall have the meaning set forth in Section 3.13 and shall not include Environmental Permits.

"ASSIGNED CONTRACTS" shall have the meaning set forth in Section 2.1(a)(ii).

"ASSIGNMENT AND ASSUMPTION AGREEMENT" shall mean the Assignment and Assumption Agreement in the form of EXHIBIT B hereto.

"ASSIGNMENT OF GROUND LEASE" means an Assignment of Ground Lease in form reasonably acceptable to the Buyer.

"ASSUMED LIABILITIES" shall have the meaning set forth in Section 2.1(c).

"AURORA" means Aurora Biosciences Corporation, formerly a Delaware corporation and wholly owned subsidiary of Owner, which was merged with and into Vertex San Diego on July 1, 2002.

"BENEFIT PLANS" shall have the meaning set forth in Section 3.5(a).

"BILL OF SALE" means the Bill of Sale in the form of EXHIBIT A hereto.

"BUSINESS" means, collectively, (a) the business of the Vertex Parties, at the time this Agreement is executed, of developing, manufacturing and/or commercializing proteins, reagents and/or assays listed on SCHEDULE 1.1(a), providing services related thereto and/or licensing of intellectual property or confidential information related thereto, (b) performing the obligations of the Vertex Parties under the Assigned Contracts and (c) developing, manufacturing and/or commercializing products and providing services that would require rights under any Proprietary Asset that is listed on SCHEDULE 2.1(a)(iii) to this Agreement or in Parts 1 or 2 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE or Part 2 of SECTION 3.8(b) OF THE SELLER DISCLOSURE SCHEDULE, and/or licensing of intellectual property or confidential information related thereto; provided, however, that "Business" excludes the Instrumentation Assets, and further excludes the activities of the Vertex Parties (other than the Seller) which would not be prohibited by the Non-Competition Agreement or would be permitted under the Amended and Restated Technology Agreements.

"BUSINESS ASSETS" shall have the meaning set forth in Section 2.1(a).

"BUSINESS DAY" shall have the meaning set forth in Section 2.3(a).

"BUSINESS MATERIAL ADVERSE EFFECT" means (i) any effect that is materially adverse to the Business Assets or the Business, as operated, and as proposed to be operated, by Seller on the date of this Agreement, taken as a whole, other than (a) any such effect resulting from changes in the general financial markets or from changes in the international or national markets for the products made or proposed to be made by use of the Business Assets which have not had a materially disproportionate impact on the Business, (b) any such effect resulting solely from the occurrence of the matters set forth on SCHEDULE 1 hereto or (c) any such effect resulting solely from the identity of Buyer, each of (b) and (c) as proven by the Seller; or (ii) any matter that materially impairs the ability of the Seller or the Owner to consummate the transactions contemplated by this Agreement.

"BUYER" shall have the meaning set forth in the preamble.

"BUYER CERTIFICATE" shall have the meaning set forth in Section 6.2(d).

"BUYER INDEMNITEES" shall have the meaning set forth in Section 7.1.

"BUYER MATERIAL ADVERSE EFFECT" shall have the meaning set forth in Section 4.3(b).

"BUYER RECEIVABLES ACCOUNT" shall have the meaning set forth in Section 10.1.

"CERCLA" shall have the meaning set forth in Section 3.11(f).

"CLAIM NOTICE" shall have the meaning set forth in Section 7.3(b).

"CLOSING" shall have the meaning set forth in Section 2.3(a).

"CLOSING BALANCE SHEET" shall have the meaning set forth in Section 2.2(b)(i).

"CLOSING DATE" shall have the meaning set forth in Section 2.3(a).

"CODE" means the Internal Revenue Code of 1986, as amended.

"CONFIDENTIALITY AGREEMENT" shall have the meaning set forth in Section 5.3.

"CONTRACT ADMINISTRATION AGREEMENT (ASSAY)" shall mean the Contract Administration Agreement in the form of EXHIBIT G-1 hereto.

**"CONTRACT ADMINISTRATION AGREEMENT (INSTRUMENTATION)" shall mean the** Contract Administration Agreement in the form of EXHIBIT G-2 hereto.

"DAMAGES" shall have the meaning set forth in Section 7.1.

"EMPLOYEES" shall have the meaning set forth in Section 3.5(g)(iii).

"ENVIRONMENTAL LAW" means any foreign, federal, state, provincial, or municipal statute, rule, regulation, ordinance, directives, orders or decrees of any Governmental Authority in effect on or before the Closing Date and relating to the protection of the environment, including

without limitation pertaining to the presence, manufacture, processing, use, treatment, storage, disposal, transportation, handling, generation or Release of Hazardous Substances.

"ENVIRONMENTAL LIABILITIES" means any and all Liabilities (including without limitation the costs of investigation, clean up actions, remedial actions or other response costs) arising out of or relating to any of the following conditions or events to the extent such conditions or events occur on or before the Closing Date: (a) environmental conditions, including the presence or Release or exposure to Hazardous Substances at, on, in, from or around the Real Estate, (b) the off-site transportation, storage, treatment, recycling, disposal or arrangement for disposal of or distribution of Hazardous Substances by or on behalf of the Seller or any of its predecessors in connection with the Business or the Business Assets, and (c) any violation of any Environmental Law (including any costs and expenses reasonably incurred after Closing to come into compliance with such Environmental Law).

"ENVIRONMENTAL PERMITS" shall have the meaning set forth in Section 3.11(a).

"ERISA" shall have the meaning set forth in Section 3.5(g)(i).

"ERISA AFFILIATE" shall have the meaning set forth in Section 3.5(g)(ii).

"EXCLUDED ASSETS" shall have the meaning set forth in Section 2.1(b).

"EXCLUDED LIABILITIES" shall have the meaning set forth in Section 2.1(d).

"FINANCIAL STATEMENTS" shall have the meaning set forth in Section 3.6(a).

"FORMER EMPLOYEES" shall have the meaning set forth in Section 3.5(g)(iv).

"FORMER SELLER EMPLOYEE" shall have the meaning set forth in Section 9.6(a).

"GAAP" shall have the meaning set forth in the definition of "**APPLICABLE ACCOUNTING PRINCIPLES.**"

"GOVERNMENTAL AUTHORITY" means any governmental department, commission, board, bureau, agency, court or other instrumentality of the United States or foreign country or any county, jurisdiction, municipality or other political subdivision thereof or any other supranational organization of sovereign states.

"GOVERNMENTAL FILINGS" shall have the meaning set forth in Section 5.1(a)(ii).

"HART-SCOTT-RODINO ACT" shall have the meaning set forth in Section 3.2(c)3.

"HAZARDOUS SUBSTANCE" means any hazardous or toxic substance, pollutant, material, waste or contaminant that is regulated by an Environmental Law.

"INDEMNIFIED PARTY" shall have the meaning set forth in Section 7.3(a).

"INDEMNIFYING PARTY" shall have the meaning set forth in Section 7.3(a).

"IRS" means the Internal Revenue Service of the United State of America.

"INSTRUMENTATION ASSETS" shall have the meaning set forth in Section 2.1(b)(i).

"INVESTMENTS" shall have the meaning set forth in Section 2.1(a)(vi).

"KEY CUSTOMER" shall have the meaning set forth in Section 3.25.

"KNOW-HOW" means any and all confidential information and data of any kind and in any form whatsoever owned by the Seller and generated or used by the Seller in connection with the Business including, without limitation, techniques, inventions, practices, methods, knowledge, know-how, skill, software, experience, test data (including pharmacological, toxicological and clinical test data), analytical and quality assurance and quality control data and information, marketing, cost, and sales information and manufacturing technology, data and descriptions, compositions and assays.

"KNOWLEDGE OF THE BUYER" means the actual knowledge of any senior officer of the Buyer after reasonable inquiry within Buyer and its Affiliates with respect to the matter in question.

"KNOWLEDGE OF THE SELLER" means the actual knowledge of any senior officer of the Seller, Owner and Vertex San Diego after reasonable inquiry within Seller and its Affiliates with respect to the matter in question.

"LEASE" means that certain University Research Park Ground Lease, as amended, dated October 1, 1998, by and between University Research Park, Inc. and PanVera Corporation.

"LETTER" shall have the meaning set forth in Section 10.1.

"LIABILITY" means any liability or obligation (whether known or unknown, whether asserted or unasserted, whether absolute or contingent, whether accrued or unaccrued, whether liquidated or unliquidated and whether due or to become due).

"LIEN" means any lien, charge, claim, pledge, security interest, conditional sale agreement or other title retention agreement, lease, mortgage, security agreement, right of first refusal, option, restriction, license, covenant, or other encumbrance (including title defects of any kind whatsoever, or the filing of, or agreement to give any financing statement under the Uniform Commercial Code or statute or law of any jurisdiction).

"MANAGED" shall have the meaning set forth in Section 3.11(c).

"MANAGEMENT" shall have the meaning set forth in Section 3.11(c).

"MATERIAL CONTRACT" shall have the meaning set forth in Section 3.9.

"MATERIAL LOSS" shall mean a loss or damage suffered or incurred by a Party or other adverse circumstance affecting a Party which has a reasonable likelihood of being valued at \$2,500,000 or more.

"NON-COMPETITION AGREEMENT" means the Non-Competition Agreement in the form of EXHIBIT C hereto.

"NOVEMBER 30 BALANCE SHEET" shall have the meaning set forth in Section 3.6(a).

"NOVEMBER 30 INCOME STATEMENT" shall have the meaning set forth in Section 3.6(a).

"OWNER" shall have the meaning set forth in the preamble.

"PANVERA CORPORATION" means PanVera Corporation, formerly a Wisconsin corporation, which was indirectly merged into the Seller on July 1, 2002.

"PARTIES" shall have the meaning set forth in the preamble.

"PATENT RIGHTS" shall have the meaning set forth in Section 2.1(a)(iii).

"PERMITTED ENCUMBRANCES" means any (i) liens for Taxes and assessments arising in the ordinary course of business that are not yet due and payable, (ii) mechanic's, workmen's, repairmen's, warehousemen's, carrier's or other like liens arising or incurred in the ordinary course of business and not material in amount and (iii) those Liens set forth on SCHEDULE 1.1 hereto.

"PERSON" means an individual, a corporation, a limited liability company, a partnership, an association, a trust or other entity or organization, including a federal, state, local or foreign government or regulatory entity or political subdivision or an agency or instrumentality thereof.

"PROPRIETARY ASSET" means any and all of the following in any country: (a) patents (including utility models, design patents, certifications of invention, extensions, reissues, reexaminations and the like), patent applications (including provisionals, divisionals, continuations and continuations-in-part), trademarks (whether registered or unregistered), trademark applications, trade names, fictitious business names, service marks (whether registered or unregistered), service mark applications, copyrights (whether registered or unregistered), copyright applications, moral rights, maskworks, maskwork applications, trade secrets, Know- How, computer software, computer programs, source code, algorithms, inventions, discoveries, technology and other intellectual property rights and intangible assets; and (b) the right (whether at law, in equity by contract or otherwise) to use or otherwise exploit any of the foregoing.

"PURCHASE PRICE" shall have the meaning set forth in Section 2.2(a).

"REAL ESTATE" means the real property set forth on SCHEDULE 2.1(a)(i).

"REFERENCE AMOUNT" shall have the meaning set forth in Section 2.2(b)(i).

"RELEASE" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any Hazardous Substances) or the threat thereof.

"SELLER" shall have the meaning set forth in the preamble.

"SELLER CERTIFICATE" shall have the meaning set forth in Section 6.1(d).

"SELLER DISCLOSURE SCHEDULE" means the Seller Disclosure Schedule provided for in Article III, as supplemented and amended in accordance with the provisions of Section 5.6(a). The disclosure of any item in any Section of the Seller Disclosure Schedule shall constitute disclosure of that item in any and all Sections of the Seller Disclosure Schedule as to which such disclosure would reasonably pertain and be readily apparent on its face.

"SELLER EMPLOYEES" shall have the meaning set forth in Section 9.6(a).

"SELLER INDEMNITEES" shall have the meaning set forth in Section 7.2.

"SHARED KNOW-HOW" shall have the meaning given such term in the Shared Know-How Agreement.

"SHARED KNOW-HOW AGREEMENT" means the Shared Know-How Agreement in the form of EXHIBIT D hereto.

"STRADDLE PERIOD" means any Taxable period that includes, but does not end on the Closing Date.

"SUPPLY AGREEMENT" means the Supply Agreement in the form of EXHIBIT F hereto.

"TAXES" (including, with correlative meaning, the terms "TAX" and "TAXABLE") shall mean all taxes of any kind imposed by a federal, state, local or foreign Governmental Authority, including but not limited to (i) all taxes, domestic or foreign, including without limitation any income (net, gross or other, including recapture of any tax items such as investment tax credits), alternative or add-on minimum tax, gross income, gross receipts, gains, sales, use, leasing, lease, user, ad valorem, transfer, recording, franchise, profits, property (real or personal, tangible or intangible), fuel, license, withholding, payroll, employment, unemployment, social security, excise, severance, stamp, occupation, premium, environmental or windfall profit tax, custom, duty or other tax, or other like assessment or charge of any kind whatsoever, together with any interest, levies, assessments, charges, penalties and additions, (ii) any joint or several liability of such Person with any other Person for the payment of any amounts of the type described in (i) of this definition and (iii) any liability for the payment of any amounts of the type described in (i) as a result of any express or implied obligation to indemnify any other Person.

"TAX RETURNS" means all reports, returns, schedules and any other documents required to be filed with respect to Taxes and all claims for refunds of Taxes.

"THIRD-PARTY" shall mean any Person who is not a Party to this Agreement or an Affiliate of a Party to this Agreement.

"THIRD-PARTY CLAIM" shall have the meaning set forth in Section 7.3(a).

"THIRD-PARTY CONSENTS" shall have the meaning set forth in Section 5.1(a)(i).

"TRADEMARKS" shall have the meaning set forth in Section 2.1(a)(iii).

"TRANSFER DOCUMENTS" shall have the meaning set forth in Section 2.3(b).

"TRANSITION SERVICES AGREEMENT" means the Transition Services Agreement in the form of EXHIBIT E hereto.

"TRANSFERRED EMPLOYEES" shall have the meaning set forth in Section 9.6(b).

"VERTEX PARTIES" means the Seller, the Owner, Vertex San Diego, PanVera Corporation, Aurora, each of their successors and assigns, and each of their respective Affiliates.

"VERTEX SAN DIEGO" means Vertex Pharmaceuticals (San Diego) LLC, a Delaware limited liability company and a wholly owned subsidiary of the Owner.

"WARN ACT" shall have the meaning set forth in Section 3.23.

## **ARTICLE II ASSET PURCHASE**

### **2.1 PURCHASE AND SALE OF ASSETS; ASSUMPTION OF LIABILITIES.**

(a) **TRANSFER OF ASSETS.** At the Closing the Seller shall, and the Owner shall cause the Seller to, sell, convey, assign, transfer and deliver to the Buyer (or one or more of its assignees), and the Buyer shall purchase and acquire from the Seller, all of the Seller's right, title and interest in and to the Business Assets, free and clear of all Liens other than Permitted Encumbrances. For purposes of this Agreement, the "BUSINESS ASSETS" shall mean all assets used in the operation of the Business by the Seller on the date of this Agreement (other than those assets disposed of by the Seller on or prior to the Closing Date but only to the extent permitted by Section 5.2 hereof) plus any assets acquired by the Seller following the date of this Agreement and on or prior to the Closing Date, but excluding the Excluded Assets. The Business Assets which are owned by the Seller, including the Assigned Contracts (pursuant to which Assigned Contracts the Seller has been provided its rights in certain of the Business Assets), are referred to hereinafter as the "ACQUIRED ASSETS." The Business Assets to which the Seller is transferring all of its right, title and interest include without limitation the following:

(i) the real property, leaseholds, subleases and interests therein, options or similar rights to purchase, lease, use or occupy real property and buildings, structures, facilities, fixtures and other improvements thereon and appurtenances thereto, that are listed by premises, building or street address, and tax lot number on SCHEDULE 2.1(a)(i) hereto (collectively, the "REAL ESTATE");

(ii) all oral and written contracts, agreements, leases, subleases, licenses, and other arrangements used in the Business, including, without limitation, the Material Contracts (the "ASSIGNED CONTRACTS");

(iii) all Proprietary Assets generated or used by or on behalf of the Seller in connection with the Business, including, without limitation, those trademarks and trade



names and registrations thereof and registration applications therefor set forth on SCHEDULE 2.1(a)(iii) hereto (the "TRADEMARKS") and those patents (including any extension, reissue, reexamination or the like relating thereto) and patent applications (including any provisional, divisional, continuation or continuation in part) set forth on SCHEDULE 2.1(a)(iii) hereto (the "PATENT RIGHTS");

(iv) all actions, claims, causes of action, rights of recovery, choses in action or rights to set off, whether arising out of occurrences before or after the Closing Date, including Third-Party warranties and guarantees and other similar contractual rights as to third parties held by or in favor of any of the Vertex Parties with respect to any of the Business Assets, except for those described in clauses (i) and (iii) of the definition of "EXCLUDED ASSETS";

(v) all of the Seller's accounts receivable and other receivables relating to the Business Assets or arising out of the conduct of the Business;

(vi) subject to the provisions of Section 2.2(c), below, those equity securities set forth on SCHEDULE 2.1(a)(vi) (the "INVESTMENTS"); and

(vii) all other assets and properties reflected on the Closing Balance Sheet.

(b) EXCLUDED ASSETS. The Buyer shall not be entitled or obligated to purchase any of the Excluded Assets. "EXCLUDED ASSETS" shall mean any assets, properties or rights of any Vertex Party other than the Seller, together with the following assets, properties and rights of the Seller:

(i) those assets described on SCHEDULE 2.1(b)(i) hereto, which were conveyed by Seller to Aurora Biosystems LLC, prior to the date of this Agreement but subsequent to the date of the November 30 Balance Sheet (the "INSTRUMENTATION ASSETS");

(ii) any cash or short-term marketable securities (which for purposes hereof shall be deemed to not include any of the Investments);

(iii) rights to insurance claims, related refunds and proceeds of claims asserted against third parties which arise out of occurrences before or after the Closing Date, including rights with respect to Third-Party warranties and guarantees and other similar contractual rights held by or in favor of any of the Vertex Parties with respect to any of the Business Assets, solely to the extent the Seller, and not the Buyer, bears or is responsible for the matter to which such right or action relates (whether because the matter relates to an Excluded Liability or otherwise), and then only to the extent of amounts paid by the Seller with respect thereto (including by way of any reduction in the Purchase Price);

(iv) all assets relating to the Benefit Plans and other policies, programs and agreements set forth in SECTION 3.5(a) OF THE SELLER DISCLOSURE SCHEDULE;

(v) all refunds of any Tax, except as provided in Section 5.2(d)(viii);

- (vi) Shared Know-How including that Shared Know-How which is the subject of the Shared Know-How Agreement;
  - (vii) as provided for more fully in Section 2.2(c), below, any Investments with respect to which a Third-Party exercises a right of first refusal;
  - (viii) any trade names or trademarks not used in the Business and owned by Vertex San Diego, including without limitation those previously used by Aurora;
  - (ix) any and all agreements by and between the Seller and either of Takara Shuzo Co., Ltd. or Fisher Scientific Company, LLC, any accounts receivable related to such agreements and any inventory related to the Takara Shuzo Agreement;
  - (x) Seller's limited liability company membership interest in Aurora Biosystems LLC;
  - (xi) Sublease dated June 29, 2002 between OMM, Inc. and PanVera LLC to Master Lease between OMM, Inc. and CalWest Industrial Holdings, LLC for real property located at 9645 Scranton Road, Suite 140, San Diego, CA; and
  - (xii) that certain Credit Agreement dated as of May 22, 2002, by and between PanVera Corporation and M&I Bank of Southern Wisconsin, and all related rights and documents.
- (c) ASSUMED LIABILITIES. The Buyer shall (x) be responsible for all Liabilities associated with the Buyer's ownership, operation and use of the Business Assets and the Business from and after the Closing and (y) at the Closing, assume and agree to pay, perform and discharge when due the following additional Liabilities (the Liabilities specified in the foregoing clauses (x) and (y) being herein referred to as the "ASSUMED LIABILITIES"):
- (i) all Liabilities set forth or reflected on the Closing Balance Sheet;
  - (ii) all Liabilities arising out of or relating to the replacement or return of, or any claim for breach of warranty in respect of or refund of the purchase price of, products sold out of inventory by the Seller on or prior to the Closing Date (although the Parties recognize that the Buyer may be entitled to indemnification for such Liabilities to the extent their assertion indicates a breach of a representation or warranty of the Seller made herein);
  - (iii) all Liabilities with respect to actions, suits, proceedings, disputes, claims or investigations arising out of or related to the use of the Business Assets after the Closing Date;
  - (iv) all Liabilities arising out of or relating to the replacement or return of, or any claim for breach of warranty in respect of or refund of the purchase price of products, instrumentation, services and technologies which constitute Business Assets or which are manufactured or provided through the use of the Business Assets, in each case after the Closing Date;

(v) subject to Section 2.1(d)(i) below, any Liability with respect to the period after the Closing Date under the Assigned Contracts other than Liabilities under the Assigned Contracts being retained by the Seller pursuant to the Ancillary Agreements; and

(vi) all Liabilities in respect of Taxes for which the Buyer is liable pursuant to Section 9.1.

(d) EXCLUDED LIABILITIES. Except as otherwise set forth in Section 2.1(c), the Buyer shall not assume or be responsible for any of the following Liabilities of the Seller (the "EXCLUDED LIABILITIES"):

(i) any Liabilities of the Seller or any other Vertex Party relating to the Business Assets and the Business with respect to the period on or prior to the Closing Date and not set forth or reflected on the Closing Balance Sheet, to the extent of such Liability for the period up to and including the Closing Date;

(ii) all Environmental Liabilities;

(iii) all Liabilities under any employee benefit plan established or maintained by the Seller or to which the Seller contributes or in which any employee of the Seller participates prior to the Closing Date or any Liability for the termination of any such employee benefit plan;

(iv) all Liabilities in respect of Taxes for which the Seller and the Owner are liable pursuant to Section 9.1; and

(v) all liabilities related to the Excluded Assets.

(e) CONSENT OF THIRD PARTIES. To the extent that the assignment of all or any portion of any Assigned Contract shall require the consent of the other party thereto or any other Third-Party, this Agreement shall not constitute an agreement to assign any such Assigned Contract if an attempted assignment without any such consent would constitute a breach or violation thereof. In order, however, to provide the Buyer the full realization and value of every Assigned Contract, each of the Owner and the Seller agree that on and after the Closing it will, and will cause each Vertex Party as appropriate to, at the request and under the direction of the Buyer and at the Buyer's sole cost and expense, in the name of the Seller or otherwise as the Buyer shall specify, take all reasonable actions (including the appointment of the Buyer as attorney-in-fact for the Seller) and do or cause to be done all such things as shall in the reasonable opinion of the Buyer or its counsel be necessary or proper (i) to assure that the rights of the Seller and each applicable Vertex Party under such Assigned Contracts shall be preserved for the benefit of or transferred or issued to the Buyer, (ii) to facilitate receipt of the consideration to be received by the Seller or the applicable Vertex Party in and under every such Assigned Contract, which consideration shall be held for the benefit of, and shall be delivered to, the Buyer, and (iii) to enforce provisions under such Assigned Contracts restricting or prohibiting use, transfer or disclosure of any confidential information relating to the Business or any Acquired Asset against third parties bound by such provisions. Nothing in this Section 2.1(e) shall in any way diminish the Owner's and the Seller's obligations under Sections 5.1(a)(i) and 6.1(h) hereof.

## 2.2 PURCHASE PRICE AND RELATED MATTERS.

(a) **PURCHASE PRICE.** In consideration of the sale and transfer of the Seller's right, title and interest in the Business Assets, the Buyer shall assume the Assumed Liabilities as provided in Section 2.1(c) and shall pay to the Seller an aggregate purchase price of Ninety Five Million Dollars (\$95,000,000) (the "PURCHASE PRICE"). At the Closing, the Buyer shall pay the Purchase Price to the Seller by wire transfer of immediately available funds to the account designated by the Seller in writing at least two (2) Business Days prior to the Closing Date.

### (b) POST-CLOSING ADJUSTMENT TO PURCHASE PRICE.

(i) Within sixty (60) days after the Closing, the Buyer shall prepare and deliver to the Seller a balance sheet (the "CLOSING BALANCE SHEET") of the Seller as of the Closing Date, determined in accordance with the Applicable Accounting Principles applied on a consistent basis and this Agreement, except that there shall be no accrual for any Liabilities which are Excluded Liabilities under Sections 2.1(d)(ii) through (v), together with a calculation of the Adjustment Amount; provided, that the value of the Investments as set forth on the Closing Balance Sheet shall be the same as the value of the Investments as set forth on the November 30 Balance Sheet. For purposes hereof (y) "ADJUSTMENT AMOUNT" means the dollar amount, if any, by which the net assets of the Seller as set forth on the Closing Balance Sheet is greater or less than the Reference Amount; and (z) "REFERENCE AMOUNT" means Ten Million Dollars (\$10,000,000), less the amount set forth on the November 30 Balance Sheet with respect to any Investment that is not conveyed to the Buyer hereunder on the Closing Date as provided for in Section 2.2(c) below.

(ii) If within forty-five (45) days following delivery of the Closing Balance Sheet, the Seller has not given the Buyer written notice of its objection as to any item set forth or reflected therein or omitted therefrom or as to the calculation of any amount set forth or reflected therein (which notice shall state the basis of its objection), then the Closing Balance Sheet shall be binding and conclusive on the Parties and be used in computing the Adjustment Amount.

(iii) If the Seller duly gives the Buyer such notice of objection, and if the Seller and the Buyer fail to resolve the issues outstanding with respect to the Closing Balance Sheet within thirty (30) days of the Buyer's receipt of the Seller's objection notice, the Seller and the Buyer shall submit the matters in dispute for resolution to KPMG (the "ACCOUNTING FIRM"), which shall, within thirty (30) days after such submission, determine and report to the Parties upon such disputed matters, and such report shall be final, binding and conclusive on the Parties with respect to the matters in dispute. The fees and disbursements of the Accounting Firm shall be allocated between the Buyer and the Seller so that the Seller's share of such fees and disbursements shall be in the same proportion that the aggregate dollar amount of the matters in dispute so submitted by the Seller to the Accounting Firm that is unsuccessfully disputed by the Seller (as finally determined by the Accounting Firm) bears to the total dollar amount of such disputed matters so submitted by the Seller to the Accounting Firm.

(iv) The Purchase Price shall be decreased (or increased, as the case may be), on a dollar for dollar basis, by the Adjustment Amount as finally determined, and the

Seller shall, and Owner shall cause the Seller to, pay the Buyer (or, in the case of an increase in the Purchase Price, the Buyer shall pay to the Seller) the Adjustment Amount in cash by wire transfer of immediately available funds. The Seller or the Buyer shall make any payment required as a result of an adjustment to the Purchase Price pursuant to this Section 2.2(b) within ten (10) Business Days after the Adjustment Amount has been finally determined in accordance with this Section 2.2(b).

(c) ADJUSTMENT OF PURCHASE PRICE FOR INVESTMENTS.

(i) The right of the Seller to sell and convey certain of the Investments to the Buyer pursuant hereto, and the right of Vertex San Diego to convey certain of the Investments to Seller, are subject to rights of first refusal, which, if exercised, will result in Seller not being able to so sell and convey, or the Buyer to purchase, such Investments. If any such right of first refusal is exercised, then the Purchase Price shall be reduced, on a dollar for dollar basis, by the value set forth in SCHEDULE 2.1(a)(vi) with respect to the particular Investment not conveyed to the Buyer hereunder due to the exercise of such right of first refusal. Such reduction in the Purchase Price shall be made prior to the Closing, and shall reduce the Purchase Price, if the right of first refusal is exercised with respect to an Investment on or before the Closing Date. If a right of first refusal is not exercised on or before the Closing Date in accordance with its terms as in effect on the Closing Date, but remains exercisable thereafter, the Investment in question shall not be conveyed at the Closing pursuant to this Agreement, the Purchase Price shall be reduced, and such Investment shall be conveyed to the Buyer upon the expiration of such right of first refusal; at which time the Purchase Price shall be increased, on a dollar for dollar basis, following the Closing by the value of such Investment set forth in SCHEDULE 2.1(a)(vi) and the Buyer shall pay the Seller such amount in cash by wire transfer of immediately available funds promptly (and not more than three (3) Business Days) following the conveyance of such Investment.

(ii) The Parties acknowledge that as of the date of this Agreement SCHEDULE 2.1(a)(vi) does not contain a definitive value for one of the Investments that is subject to a right of first refusal. To the extent the right of first refusal related to such Investment has not been terminated or waived by the date thirty (30) days from the date hereof, Buyer and the Seller shall negotiate in good faith to agree on a value to ascribe to such Investment, and SCHEDULE 2.1(a)(vi) shall be amended to reflect the agreed to value. In the event Buyer and the Seller have not been able to agree on a value to ascribe to such Investment by the date forty (40) days from the date hereof, the value proposed by Buyer, as determined by Buyer pursuant to Section 1060 of the Code, shall be used for purposes of this Section 2.2(c) and SCHEDULE 2.1(a)(vi) shall be amended to reflect such value.

(d) ALLOCATION OF PURCHASE PRICE. The aggregate amount of the Purchase Price paid by the Buyer hereunder and the Assumed Liabilities shall be allocated among the Acquired Assets and the Non-Competition Agreement for Tax purposes, in compliance with Section 1060 of the Code, and any comparable provisions of state, local, foreign or other applicable Tax laws.

## 2.3 THE CLOSING.

(a) **TIME AND LOCATION.** The closing of the transactions contemplated by this Agreement (the "CLOSING") shall take place at the offices of Gray Cary Ware & Freidenrich LLP on a mutually agreed date as soon as practicable, but in no event more than three (3) Business Days after the first date on which the conditions to the obligations of the Parties to consummate the transactions contemplated hereby have been satisfied or waived (the "CLOSING DATE"). A "BUSINESS DAY" shall mean any day other than (i) a Saturday or Sunday or (ii) a day on which banking institutions located in San Diego, California are permitted or required by law, executive order or governmental decree to remain closed. The transfer of the Seller's right, title and interest in the Business Assets by the Seller to the Buyer shall be deemed to occur at 12:01 a.m., PST time, on the Closing Date.

(b) **ACTIONS AT THE CLOSING.** At the Closing:

(i) the Seller shall deliver (or cause to be delivered) to the Buyer the various certificates, instruments and documents required to be delivered under Section 6.1;

(ii) the Buyer shall deliver (or cause to be delivered) to the Seller the various certificates, instruments and documents required to be delivered under Section 6.2;

(iii) the Seller shall execute and deliver to the Buyer the Bill of Sale;

(iv) the Buyer and the Seller shall execute and deliver the Assignment and Assumption Agreement;

(v) the Buyer and the Owner shall execute and deliver the Non-Competition Agreement;

(vi) the Buyer, the Seller and the Owner shall execute and deliver the Shared Know-How Agreement;

(vii) the Buyer, the Seller and the Owner shall execute and deliver the Transition Services Agreement;

(viii) the Buyer and Vertex San Diego shall (and the Owner shall cause Vertex San Diego to) execute and deliver the Contract Administration Agreement (Assay) and the Buyer and Aurora Biosystems LLC shall (and the Owner shall cause Aurora Biosystems LLC to) execute and deliver the Contract Administration Agreement (Instrumentation);

(ix) the Buyer and the appropriate Vertex Parties shall (and the Owner shall cause the appropriate Vertex Parties to) execute and deliver the Amended and Restated Technology Agreements;

(x) the Buyer shall pay to the Seller the Purchase Price in accordance with the provisions of, and subject to the adjustment described in, Section 2.2 hereof;

(xi) the Seller shall deliver to the Buyer, or otherwise put the Buyer in possession and control of, all of the Acquired Assets of a tangible nature (including any certificates representing Investments transferred to the Buyer, in the form duly endorsed for transfer);

(xii) the Buyer and the Seller shall execute and deliver to each other a cross-receipt evidencing the transactions referred to above;

(xiii) the Owner and the Buyer shall execute and deliver the Supply Agreement;

(xiv) the Seller shall execute and deliver to the Buyer the Assignment of Ground Lease, and shall deliver all tenant files, tenant correspondence and repair records;

(xv) the Seller shall have delivered to the Buyer lien releases, pay-off letters and UCC-3 termination statements as may be necessary to evidence the release and termination of all liens (other than Permitted Encumbrances) on the Acquired Assets and on the Seller's right, title and interest in the Business Assets that are not owned by the Seller;

(xvi) the Owner and the Seller shall execute and deliver certificates as required under Section 1445 of the Code and Section 1.1445-2(b) of the Treasury regulations; PROVIDED, HOWEVER, that if either the Owner or the Seller fails or refuses to deliver the certificate required to confirm it is not a "foreign person" as such term is defined in Section 1445(f)(3) of the Code, or the Buyer has actual knowledge that such certificate is false, the Buyer shall deduct and withhold from the Purchase Price a Tax as required by Section 1445 of the Code; and, PROVIDED, FURTHER, that, in the event of any such withholding, the Closing hereunder shall not be otherwise affected, the Buyer shall remit such amount to and file the required form with the IRS, and each of the Owner and the Seller, in the event of any claimed over-withholding, (A) shall be limited solely to an action against the IRS for a refund, and (B) hereby waives any right of action against the Buyer on account of such withholding; and

(xvii) the Seller shall deliver all keys, access codes and combinations to all locks, and other security devices to the Real Estate.

The agreements and instruments referred to in clauses (iii), (iv), (xii),

(xiv) and (xv) above are referred to herein as the "TRANSFER DOCUMENTS," and the Transfer Documents and the agreements referred to in clauses (v), (vi), (vii),

(viii), (ix) and (xiii) above are collectively referred to herein as the "ANCILLARY AGREEMENTS".

2.4 FURTHER ASSURANCES. At any time and from time to time after the Closing Date, as and when requested by any Party hereto and at such Party's expense, the Buyer, the Owner and the Seller shall, and the Owner and the Seller shall cause Vertex San Diego and Aurora Biosystems LLC to, promptly execute and deliver, or cause to be executed and delivered, all such documents, instruments and certificates and shall take, or cause to be taken, all such further or other actions as are reasonably necessary to fully vest in the Buyer title to the Seller's right, title and interest in the Business Assets.

2.5 OWNER OBLIGATIONS. The Owner hereby undertakes to cause the Vertex Parties to perform all of their obligations under this Agreement and the Ancillary Agreements, including, without limitation, sale and transfer of the Seller's right, title and interest in the Business Assets and performance of any indemnification obligations of the Seller to the Buyer. To the extent that any Vertex Party fails to perform or discharge any of such obligations, the Owner acknowledges and agrees that it shall do so and that its obligation to do so shall be joint and several with the original Vertex Party to such obligation.

**ARTICLE III  
REPRESENTATIONS AND WARRANTIES OF THE  
OWNER AND THE SELLER**

Each of the Owner and the Seller jointly and severally represents and warrants to the Buyer that the statements contained in this Article III are true and correct as of the date hereof, except as otherwise set forth in the Seller Disclosure Schedule provided by the Seller to the Buyer.

**3.1 ORGANIZATION, QUALIFICATION AND LIMITED LIABILITY COMPANY POWER.**

(a) The Owner is a corporation duly organized, validly existing and in good standing under the laws of The Commonwealth of Massachusetts. The Seller is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Delaware, and is duly qualified to transact business and in good standing in each jurisdiction in which the nature of its operations requires such qualification, except where the failure to so qualify is not reasonably likely to have a Business Material Adverse Effect.

(b) The Seller has all requisite limited liability company power and authority to carry on the business in which it is now engaged and to own and use the properties now owned and used by it. A true and correct copy of the certificate of formation and operating agreement of the Seller, as well as the articles of organization and by-laws of Owner, have been provided to the Buyer prior to the date hereof.

(c) Except as set forth in SECTION 3.1(c) OF THE SELLER DISCLOSURE SCHEDULE, the Seller does not own any shares of capital stock of, or equity interest of any nature in, any Person. The Seller is not obligated to make any future investment in or capital contribution to any Person.

**3.2 AUTHORITY; REQUIRED FILINGS AND CONSENTS.**

(a) The Owner has all corporate power and authority to execute and deliver this Agreement and the Ancillary Agreements to which it will be a party and to perform its obligations hereunder and thereunder. The execution and delivery by the Owner of this Agreement and the Ancillary Agreements to which it will be a party and the consummation by the Owner of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate action on the part of the Owner and no other authorization or consent of the Owner's directors or stockholders is necessary. This Agreement has been, and such Ancillary Agreements will be, duly executed and delivered by the Owner and, assuming this Agreement and each such Ancillary Agreement constitute the legal, valid and binding obligation of the other



Parties thereto (other than any Affiliate of Owner), this Agreement constitutes, and each such Ancillary Agreement will constitute, a legal, valid and binding obligation of the Owner, enforceable against the Owner in accordance with its terms, except as such enforceability may be limited by general principles of equity (whether asserted in a proceeding at law or in equity) or by bankruptcy or similar laws affecting the rights of creditors generally.

(b) The Seller has all limited liability company power and authority to execute and deliver this Agreement and the Ancillary Agreements to which it will be a party and to perform its obligations hereunder and thereunder. The execution and delivery by the Seller of this Agreement and the Ancillary Agreements to which it will be a party and the consummation by the Seller of the transactions contemplated hereby and thereby have been duly authorized by all necessary limited liability company action on the part of the Seller and no other authorization or consent of the Seller's managers or members is necessary. This Agreement has been, and such Ancillary Agreements will be, duly executed and delivered by the Seller and, assuming this Agreement and each such Ancillary Agreement constitute the legal, valid and binding obligation of the other Parties thereto (other than any Affiliate of Owner), this Agreement constitutes, and each such Ancillary Agreement will constitute, a legal, valid and binding obligation of the Seller, enforceable against the Seller in accordance with its terms, except as such enforceability may be limited by general principles of equity (whether asserted in a proceeding at law or in equity) or by bankruptcy or similar laws affecting the rights of creditors generally.

(c) Subject to compliance with the applicable requirements of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended (the "HART-SCOTT-RODINO ACT") no consent, approval, order or authorization of, or registration, declaration or filing with, any Governmental Authority is required by or with respect to the Owner or Seller in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby, except for such other consents, authorizations, filings, approvals and registrations which, if not obtained or made, would not prevent or materially alter or delay any of the transactions contemplated by this Agreement or have a Business Material Adverse Effect.

3.3 NONCONTRAVENTION. Subject to compliance with the applicable requirements of the Hart-Scott-Rodino Act, and applicable foreign antitrust or trade regulation laws, none of (i) the execution and delivery by the Owner and the Seller of this Agreement and the Ancillary Agreements to which each will be a party, (ii) the execution and deliver by Vertex San Diego or Aurora Biosystems LLC of the Ancillary Agreements to which each will be a party, (iii) the consummation by the Owner and the Seller of the transactions contemplated hereby or thereby and (iv) the consummation by Vertex San Diego and Aurora Biosystems LLC of the transactions contemplated by the Ancillary Agreements to which each of them is a party, will:

(a) conflict with or violate any provision of the articles of organization or the bylaws of the Owner;

(b) conflict with or violate any provision of the certificate of formation or limited liability company agreement of the Seller, Vertex San Diego or Aurora Biosystems LLC;

(c) except as set forth in SECTION 3.3(c) OF THE SELLER DISCLOSURE SCHEDULE, conflict with, result in a breach of, constitute (with or without due notice or lapse of time or both) a

default under, result in the acceleration of obligations under, create in any party the right to terminate or modify, or require any notice, consent or waiver under any Material Contract, or any other contract or agreement that is material to Vertex San Diego or Aurora Biosystems LLC;

(d) violate any order, writ, injunction or decree to which the Seller or any other Vertex Party or any of their respective properties or assets is subject; or

(e) violate any statute, rule or regulation applicable to the Seller or any other Vertex Party or any of their respective properties or assets.

### 3.4 TITLE TO BUSINESS ASSETS.

(a) Except for Permitted Encumbrances, the Seller has good and valid title to the Business Assets that it owns, and a valid leasehold or license interest in the Business Assets it leases or licenses, free and clear of all Liens. The tangible assets included in the Business Assets that the Seller owns, leases or otherwise controls are in good operating condition and repair, normal wear and tear excepted.

(b) The Business Assets, together with the rights granted to the Buyer pursuant to this Agreement and the Ancillary Agreements, constitute and on the Closing Date will constitute all of the assets used in the Business and properties in which any Vertex Party has an ownership interest or contractual right, other than those assets or properties used by the Vertex Parties (other than the Seller) in activities which would not be prohibited by the Non-Competition Agreement or would be permitted under the Amended and Restated Technology Agreements.

### 3.5 EMPLOYEE BENEFIT PLANS.

(a) Set forth on SECTION 3.5(a) OF THE SELLER DISCLOSURE SCHEDULE is a true and complete list of each (i) "employee benefit plan" as defined in

Section 3(3) of ERISA (including any "multiemployer plan" as defined in Section 3(37) of ERISA) and (ii) all other pension, retirement, supplemental retirement, deferred compensation, excess benefit, profit sharing, employment, bonus, incentive, equity purchase, equity ownership, equity option, equity appreciation right, severance, salary continuation, termination, change-of-control, health, life, disability, group insurance, vacation, holiday, sick-day, sabbatical and fringe benefit plan, program, contract, or arrangement (whether written or unwritten, qualified or nonqualified, funded or unfunded, foreign or domestic and subject to ERISA or not, including any that have been frozen or terminated ) maintained, contributed to, or required to be contributed to, by the Seller or any of its ERISA Affiliates in respect of any Employee or Former Employee, or under which the Seller or any of its ERISA Affiliates has any liability with respect to any Employee or Former Employee (the "BENEFIT PLANS").

(b) As applicable with respect to each Benefit Plan, the Seller has made available to the Buyer, true and complete copies of each Benefit Plan, including all amendments thereto, and in the case of an unwritten Benefit Plan, a written description thereof.

(c) Each Benefit Plan has been maintained, operated and administered in material compliance in all respects with its terms and any related documents or agreements and the applicable provisions of all laws including ERISA and the Code.

(d) No Benefit Plan is now or at any time has been a "multiemployer plan" within the meaning of Section 3(37) of ERISA. Neither the Seller nor any ERISA Affiliate has ever contributed to or been required to contribute to a multiemployer plan and neither the Seller nor any ERISA Affiliate has any liability (contract or otherwise) relating to the withdrawal or partial withdrawal from a multiemployer plan. No Benefit Plan is now or at any time has been subject to Part 3, Subtitle B of Title I of ERISA or Title IV of ERISA.

(e) No Benefit Plan provides material benefits, including death or medical benefits, beyond termination of service or retirement other than (i) coverage mandated by law or (ii) death or retirement benefits under a Benefit Plan qualified under Section 401(a) of the Code. Neither the Seller nor any of its ERISA Affiliates have made a written or oral representation to any Employee or Former Employee promising or guaranteeing any employer paid continuation of medical, dental, life or disability coverage for any period of time beyond retirement or termination of employment.

(f) Except as set forth on SECTION 3.5(f) OF THE SELLER DISCLOSURE SCHEDULE, no Benefit Plan provides for payments or benefits that would result in the payment of any "parachute payments" within the meaning of Sections 280G or 4999 of the Code either individually or in conjunction with other Benefit Plans.

(g) As used herein,

(i) "ERISA" means the Employee Retirement Income Security Act of 1974, as amended.

(ii) "ERISA AFFILIATE" means (i) any corporation included with the Seller in a controlled group of corporations within the meaning of Section 414(b) of the Code; (ii) any trade or business (whether or not incorporated) which is under common control with the Seller within the meaning of Section 414(c) of the Code; (iii) any member of an affiliated service group of which the Seller is a member within the meaning of Section 414(m) of the Code; or (iv) any other person or entity treated as an affiliate of the Seller under Section 414(o) of the Code.

(iii) "EMPLOYEES" shall mean all individuals with whom the Seller or any ERISA Affiliate maintains on the specified date, an employer-employee relationship and whose primary responsibilities relate to the Business.

(iv) "FORMER EMPLOYEES" means all individuals who were previously employed by the Seller or any of its ERISA Affiliates and whose primary responsibilities related to the Business but who are no longer so employed on the Closing Date, including any such individual receiving long-term disability benefits.

### 3.6 FINANCIAL INFORMATION.

(a) The pro-forma balance sheet of the Business as of November 30, 2002, which is set forth on SECTION 3.6(a) OF THE SELLER DISCLOSURE SCHEDULE (the "NOVEMBER 30 BALANCE SHEET") and the pro-forma income statement of the Business as of November 30, 2002, which is set forth on SECTION 3.6(a) OF THE SELLER DISCLOSURE SCHEDULE (the "NOVEMBER 30 INCOME

STATEMENT" and collectively with the November 30 Balance Sheet, the "FINANCIAL STATEMENTS"), have been derived from the books of account of the Seller by the Seller in the ordinary course of business.

(b) The Financial Statements are true and correct in all material respects, were prepared in accordance with GAAP applied on a consistent basis and fairly reflect in reasonable detail all assets and liabilities and the financial position of the Business as of the date thereof, subject to year-end and audit adjustments which will not, in the aggregate, be material, and except that the Financial Statements do not contain footnotes.

3.7 ABSENCE OF CERTAIN CHANGES. Since November 30, 2002, except as disclosed in Section 3.7 of the Seller Disclosure Schedule, with respect to the Business and the Business Assets, there has not been:

- (a) any incurrence, assumption or guarantee of any Liability other than in the ordinary course of business consistent with past practice;
- (b) any discharge or satisfaction of any Liens or payment or satisfaction of any obligation or Liability thereof or associated therewith other than in the ordinary course of business consistent with past practice;
- (c) any change or any threat of any change in any relations with, or any loss or threat of loss of, any of the material suppliers, clients or customers thereof or otherwise relating thereto;
- (d) any disposition of or failure to keep in effect any rights in, to or for the use of any Applicable Permit;
- (e) any modification, amendment or termination of, or the entering into of any new Material Contract or any cancellation, modification or waiver of any material debts or claims held by the Seller or any waiver of any other rights of the Seller;
- (f) any damage, destruction or casualty loss affecting the Business or an Acquired Asset in excess of \$100,000 per incident or in the aggregate, whether or not covered by insurance;
- (g) any change by the Seller in its method of accounting or keeping of its books of account or accounting practice that relates to the Business, an Acquired Asset or an Assumed Liability, including any change in any assumptions underlying or methods of calculating any bad debt, contingency, Tax or other reserves or any change in estimates or valuations;
- (h) any sale, transfer or other disposition of any assets, properties or rights of the Business, except in the ordinary course of business consistent with past practice which are not material in the aggregate, except with respect to any cash or short-term marketable securities (other than the Investments) set forth or reflected on the November 30 Balance Sheet, and except for the conveyance by Seller of the Instrumentation Assets;

- (i) any commitments or agreements for capital expenditures or capital additions or betterments relating to the Business exceeding \$50,000 in the aggregate, except such as may be involved in the ordinary repair, maintenance or replacement of assets not exceeding an additional \$50,000 in the aggregate;
- (j) other than with respect to travel expense reimbursement and employee compensation and benefits in the ordinary course of business consistent with past practice, any payment, distribution, loan or advance of any amount to, or sale, transfer or lease of properties or assets (real, personal, or mixed, tangible or intangible) to, or the entering into of any agreement or arrangement to do so with, any officers or managers of the Seller (or any of its officers, managers or directors), or any "associate" (as such term is defined in Rule 405 under the Securities Act of 1933, as amended) thereof;
- (k) any mortgage, pledge or subjection to Lien of any kind on any assets, tangible or intangible, of the Business except for Permitted Encumbrances;
- (l) the granting of any material increase in the compensation payable or to become payable by the Seller to its managers, officers or employees other than increases in the ordinary course of business to employees who are not managers or officers;
- (m) any material transaction, agreement or event outside the ordinary course of the conduct of the Business;
- (n) the agreement, whether in writing or otherwise, to take any action described in this Section 3.7, or which would constitute a breach of any of the representations and warranties of the Owner and the Seller contained in this Agreement;
- (o) any other changes in the financial condition of the Business, except for any changes that would not reasonably be expected to result in a Business Material Adverse Effect and except for any changes that involve or affect only Excluded Assets or Excluded Liabilities (including, without limitation, the conveyance by Seller of the Instrumentation Assets subsequent to such date); or
- (p) any Business Material Adverse Effect.

### 3.8 INTELLECTUAL PROPERTY.

(a) Part 1 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE lists all of the Proprietary Assets included in the Business Assets which are patents, patent applications, trademarks or trademark applications wholly owned by Seller, setting forth in each case the jurisdictions in which patents have been issued, patent applications have been filed, trademarks have been registered and trademark applications have been filed. Part 2 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE lists all of the Proprietary Assets included in the Business Assets which are patents, patent applications, trademarks and trademark applications, other than those wholly or co-owned by Seller, setting forth in each case the jurisdictions in which patents have been issued, patent applications have been filed, trademarks have been registered and trademark applications have been filed. Part 3 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE lists all oral and written contracts, agreements, licenses and other arrangements under which any Vertex

Party is licensed or otherwise permitted to use any Proprietary Assets included in the Business Assets, other than standardized nonexclusive licenses that are available to the public generally and were obtained by Seller in the ordinary course of business.

(b) Except as set forth in Part 1 of SECTION 3.8(b) OF THE SELLER DISCLOSURE SCHEDULE, no Third Party has asserted a claim, nor, to the knowledge of the Seller, are there any facts which could give rise to a claim, which would adversely affect the Seller's ownership rights to, or rights under, (i) any of the Proprietary Assets included in the Business Assets which are owned by Seller, or (ii) any contracts, agreements, licenses and other arrangements under which any Vertex Party is licensed or otherwise permitted to use any Proprietary Asset included in the Business Assets, other than those described in clause (i) above. Except as set forth in Part 2 of SECTION 3.8(b) OF THE SELLER DISCLOSURE SCHEDULE, the Seller does not jointly own or license with any other Person any Proprietary Assets included in the Business Assets which are patents, patent applications, trademarks or trademark applications.

(c) No current, or (to the knowledge of Seller) former, officer, manager, director, stockholder, member, employee, consultant or independent contractor of the Vertex Parties has any right, title or interest in, to or under any Proprietary Asset included in the Business Assets.

(d) Except as set forth in SECTION 3.8(d) OF THE SELLER DISCLOSURE SCHEDULE, all Proprietary Assets that (i) are filed or registered with any Governmental Authority, and (ii) either (A) are required to be listed in Part 1 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE or (B) a Vertex Party has the right to control the prosecution thereof and are required to be listed in

Part 2 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE or Part 2 of SECTION 3.8(b) OF THE SELLER DISCLOSURE SCHEDULE, have been duly filed or registered (as applicable), and maintained, including the submission of all necessary filings and fees in accordance with the legal and administrative requirements or the appropriate jurisdictions, and have not lapsed, expired or been abandoned. Except as set forth in SECTION 3.8(d) OF THE SELLER DISCLOSURE SCHEDULE, with respect to all of the issued patents and pending patent applications that either are required to be listed in Part 1 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE, or a Vertex Party has the right to control the prosecution thereof and are required to be listed in Part 2 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE or Part 2 of SECTION 3.8(b) OF THE SELLER DISCLOSURE SCHEDULE, (i) to the knowledge of the Seller, all of such patents and patent applications disclose patentable subject matter, and (ii) to the knowledge of the Seller with respect to events prior to July 18, 2001 regarding patents and patent applications included in the Business Assets to which rights were acquired by virtue of the Owner's acquisition of Aurora by merger effective on July 18, 2001, and without such qualification as to all other events, (A) there are no inventorship challenges, and (B) no interference been declared or provoked. Except as set forth in SECTION 3.8(d) OF THE SELLER DISCLOSURE SCHEDULE, to the knowledge of the Seller, with respect to all of the issued patents and pending patent applications that a Vertex Party does not have the right to control the prosecution thereof and are required to be listed in Part 2 of SECTION 3.8(a) OF THE SELLER DISCLOSURE SCHEDULE, (i) all of such patents and patent applications disclose patentable subject matter, (ii) there are no inventorship challenges, and (iii) no interference been declared or provoked. Except as expressly disclosed in writing to Buyer prior to the date of this Agreement, to the knowledge of the Seller, there does not exist any material fact with respect to the issued patents and pending patent applications included in the Business Assets that would (i) preclude the issuance of any patents from patent applications included in the Business Assets (with valid

claims no less broad in scope than the claims as currently pending in those applications), (ii) render any patents included in the Business Assets invalid or unenforceable, or (iii) cause the claims of any patents included in the Business Assets to be narrowed. Except as expressly disclosed in writing to Buyer prior to the date of this Agreement, to the knowledge of the Seller, there does not exist any material fact with respect to the trademarks and trademark applications included in the Business Assets that would (i) preclude the issuance of any trademarks from trademark applications included in the Business Assets, or (ii) render any trademarks included in the Business Assets invalid or unenforceable. No Vertex Party has received written, or (to the knowledge of the Seller) oral, notice that a Third Party has challenged or has threatened to challenge such Vertex Party's rights to, the validity, enforceability or claim construction of any Proprietary Asset included in the Business Assets.

(e) Except as set forth in SECTION 3.8(e) OF THE SELLER DISCLOSURE SCHEDULE, no Vertex Party has entered into any covenant not to compete or contract limiting its ability to transact business in any market, field or geographical area or with any Person with respect to the Business.

(f) Except as set forth in SECTION 3.8(f) OF THE SELLER DISCLOSURE SCHEDULE, no Vertex Party (or to the knowledge of Seller, with respect to events prior to July 18, 2001, any predecessor in interest to the Business, such as Aurora) has granted, licensed, conveyed or permitted to any Third Party, pursuant to any written, or (to the knowledge of the Seller) oral, contract, agreement, license or other arrangement, any license or other right in, to or under (i) any of the Proprietary Assets (or tangible embodiments thereof) included in the Business Assets, or (ii) any future Proprietary Assets to be developed from the Business Assets (or tangible embodiments thereof). Except as set forth in SECTION 3.8(f) OF THE SELLER DISCLOSURE SCHEDULE, there have been no instances, since July 18, 2001, where a Vertex Party transferred or disclosed Proprietary Assets included in the Business Assets (or any tangible embodiments thereof) to a Third Party without having the recipient thereof execute a written agreement regarding the non-disclosure and non-use (other than research uses only) thereof. There have been no instances, where a Vertex Party transferred or disclosed Proprietary Assets included in the Business Assets (or any tangible embodiments thereof) to another Vertex Party with rights in favor of the recipient greater than the rights retained by the Seller pursuant to the Ancillary Agreements.

(g) Except as set forth in SECTION 3.8(g) TO THE SELLER DISCLOSURE SCHEDULE, there are no outstanding material obligations to pay a royalty, make milestone payments or provide other considerations to any other Person in connection with any Proprietary Asset that is included in the Business Assets.

(h) Except as disclosed in writing to the Buyer prior to the date of this Agreement, to the knowledge of the Seller, the conduct of the Business as conducted as of the Closing Date does not infringe, constitute contributory infringement, inducement to infringe or the misappropriation of Proprietary Assets of any other Person and, without regard to the knowledge of the Seller, neither the Owner nor the Seller has received a written notice asserting any of the foregoing.

(i) Part 1 of SECTION 3.8(i) TO THE SELLER DISCLOSURE SCHEDULE identifies those instances where (to the knowledge of Seller with respect to Aurora) a Vertex Party has provided written notice to a Third Party asserting that a Proprietary Asset that is included in the Business Assets has been infringed or misappropriated by any Third Party. Part 2 of SECTION 3.8(i) TO THE SELLER DISCLOSURE SCHEDULE identifies those instances, to the knowledge of (i) any patent agent or patent attorney currently employed by the Owner, Seller or Vertex San Diego or Paul Negulescu and Jesus "TITO" Gonzalez, where a Vertex Party reasonably believes that a Proprietary Asset that is included in the Business Assets has been infringed or misappropriated by any Third Party.

3.9 MATERIAL CONTRACTS. SECTION 3.9 OF THE SELLER DISCLOSURE SCHEDULE lists all of the following types of contracts or agreements to which the Seller is a party or by which it is bound (each a "MATERIAL CONTRACT" and collectively the "MATERIAL CONTRACTS"):

- (a) contract or agreement related to the Business involving the receipt or payment by the Seller of aggregate consideration of more than \$100,000;
- (b) contract or agreement that restricts the Seller from operating the Business (as currently being conducted and as proposed to be conducted by it on the date of this Agreement) anywhere in the world or any portion thereof;
- (c) contract or agreement granting any exclusive rights to any party;
- (d) contract or agreement evidencing indebtedness for borrowed or loaned money in excess of \$100,000 or mortgaging, pledging or otherwise placing a Lien on any of the Business Assets;
- (e) contract or agreement evidencing the in-licensing of technology that is used in the conduct of the Business, other than standardized nonexclusive licenses that are available to the public generally and were obtained by Seller in the ordinary course of business;
- (f) contract or agreement to provide funds to or make any investment in any other Person (in the form of a loan, capital contribution or otherwise);
- (g) contract or agreement creating a partnership or joint venture pursuant to which the Seller is a partner or joint venturer; and
- (h) contract or agreement that is otherwise material to the operation of the Business and the Business Assets taken as a whole.

The Seller has made available or delivered to the Buyer a complete and accurate copy of each written Material Contract including any modifications or amendments thereto. Each Material Contract is a valid and binding obligation of the Seller, and, to the knowledge of the Seller, of each other party thereto. Each Material Contract that was oral when entered into by the Seller has been reduced to writing. Except as set forth on SECTION 3.9 OF THE SELLER DISCLOSURE SCHEDULE, neither the Seller nor any other Vertex Party is in material breach of any condition, term or provision of, or in material default under, any Material Contract. To the knowledge of Seller, no other party is in material default under or in material breach or violation of, nor is there



any valid basis for any claim of material default by another party under, or any material breach or violation by another party of, any Material Contract.

3.10 PRODUCT LIABILITY; LITIGATION. SECTION 3.10 OF THE SELLER DISCLOSURE SCHEDULE lists each of the following, and except as set forth on SECTION 3.10 OF THE SELLER DISCLOSURE SCHEDULE, none of the following exist: (a) any asserted product liability claim, including such claims based on strict product liability, negligence, other tort theories, or breach of express or implied warranty, or to the knowledge of the Seller, any such claim which has been threatened against any Vertex Party relating to any products of the Business nor to the knowledge of Seller is there a reasonable basis for such claim; (b) judgment, order, decree, stipulation or injunction of any Governmental Authority specifically naming any Vertex Party or, to the knowledge of the Seller, to which any Vertex Party is subject to (other than orders of general applicability), that relates to the Business; and (c) action, suit or proceeding by or before any Governmental Authority to which any Vertex Party is a party that relates to the Business. Except as set forth in SECTION 3.10 OF THE SELLER DISCLOSURE SCHEDULE, there is no civil, criminal or administrative action, suit, hearing, or proceeding pending before any court, arbitrator or authority or, to the knowledge of the Seller, (i) threatened against any Vertex Party and (ii) relating to the Business or any of the Business Assets. Except as disclosed in SECTION 3.10 OF THE SELLER DISCLOSURE SCHEDULE, there are currently no outstanding judgments, decrees or orders of any court or Governmental Authority against any Vertex Party, which relate to or arise out of the conduct of the Business or the use of the Business Assets.

### 3.11 ENVIRONMENTAL MATTERS.

(a) The Seller holds and is and has been in material compliance with all material permits, certificates, licenses, approvals, registrations and authorizations required pursuant to Environmental Laws ("ENVIRONMENTAL PERMITS") necessary or required in connection with the Business or the ownership and operation of the Acquired Assets and the use of the Business Assets, and all of such Environmental Permits are in full force and effect and timely applications for renewal filed. All such Environmental Permits are listed in SECTION 3.11(a) OF THE SELLER DISCLOSURE SCHEDULE and any that are not transferable to the Buyer are so designated. The Seller will assist the Buyer in preparing and filing all applications for transfer of applicable Environmental Permits.

(b) Except as otherwise set forth on SECTION 3.11(b) OF THE SELLER DISCLOSURE SCHEDULE, the Seller is not in material violation of applicable Environmental Laws.

(c) No notice, citation, summons or order has been issued, no complaint has been filed, no penalty has been assessed and no investigation or review is pending, or to the knowledge of the Seller, threatened, by any Governmental Authority or other entity with respect to the Business, the Acquired Assets or the Seller's use of the Business Assets that are not owned by the Seller: (i) with respect to any alleged violation by the Seller of any Environmental Law, or (ii) with respect to any alleged failure by the Seller or any other Vertex Party to have any Environmental Permit in connection with the Business or a Business Asset, or (c) with respect to any use, possession generation, treatment, storage, recycling, transportation, disposal or distribution (collectively, "MANAGEMENT", or as a verb, "MANAGED") of, Release of or exposure to

any Hazardous Substances relating to or in connection with the Business, the Acquired Assets or the Seller's use of the Business Assets that are not owned by the Seller.

(d) The Seller has not received any request for information, notice of claim, demand or notification that it is or may be potentially responsible with respect to any investigation or clean-up of any Release of any Hazardous Substance relating to or in connection with the Business or the Business Assets.

(e) To the knowledge of the Seller, no polychlorinated biphenyls, formaldehyde or insulating material containing urea formaldehyde or asbestos-containing materials are present at any property owned, or operated or leased, but not owned, by the Seller in connection with the Business, the Acquired Assets or the Seller's use of the Business Assets that are not owned by the Seller, nor are there any underground storage tanks at any property to be transferred to the Buyer hereunder.

(f) No Hazardous Substance Managed by the Seller in connection with the Business has come to be located at any site which is listed or proposed for listing under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, ("CERCLA"), CERCLIS or on any similar state list of which any Vertex Party has received notice, which is the subject of federal, state or local enforcement actions or other investigations which may lead to claims against the Seller or the Buyer for clean-up costs, remedial work, damages to natural resources or for personal injury claims, including, but not limited to, claims under CERCLA.

(g) Except as otherwise set forth on SECTION 3.11(g) OF THE SELLER DISCLOSURE SCHEDULE, to the knowledge of the Seller, no Hazardous Substance has been Released in connection with the Business, or to the knowledge of Seller, has otherwise been Released at, on, about or under the Real Estate.

(h) Except as set forth on SECTION 3.11(h) OF THE SELLER DISCLOSURE SCHEDULE, no consent, approval or authorization of, or registration or filing with any person, including any environmental Governmental Authority, is required pursuant to Environmental Laws in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

(i) To the knowledge of the Seller, except as listed in SECTION 3.11(i) OF THE SELLER DISCLOSURE SCHEDULE, there have been no environmental inspections, investigations, studies, audits, tests, reviews or other analyses conducted with respect to the Real Estate. The Seller and the Owner have delivered or made available to the Buyer true and complete copies of all inspections, investigations, reports, studies, audits, tests, sampling results, monitoring, evaluations or analyses possessed by the Seller and/or the Owner pertaining to any Hazardous Substance in, on, beneath or adjacent to any of the Real Estate, or to which the Seller and/or the Owner have sent any Hazardous Substance in connection with the Business, or concerning compliance by the Seller and/or the Owner, or any Person for whose conduct they are legally responsible, with any Environmental Law with respect to the Business.

3.12 LEGAL COMPLIANCE. The Seller is in material compliance with all laws (including rules and regulations thereunder) of any federal, state or foreign government, or any Governmental Authority, relating to the Business or its conduct, or the Business Assets or their use. The Parties recognize and agree that the representation and warranty contained in the first sentence of this SECTION 3.12 shall not be applicable to the following matters as to which specific representations and warranties have been agreed to by the Parties as set forth in the following Sections of this Agreement: SECTION 3.5 (Benefit Plans), SECTION 3.11 (Environmental Matters), SECTION 3.16 (Taxes), SECTION 3.13 (certificates of occupancy), SECTION 3.19(g) (zoning and access), SECTION 3.20 (Exports and Customs), SECTION 3.22 (Labor Relations) and SECTION 3.23 (WARN Act).

3.13 APPLICABLE PERMITS. SECTION 3.13 OF THE SELLER DISCLOSURE SCHEDULE lists all material permits, licenses, franchises, certificates of occupancy or authorizations from any Governmental Authority required to conduct the Business and to use the Business Assets in the conduct of the Business (other than Environmental Permits which are listed in SECTION 3.11(a) OF THE SELLER DISCLOSURE SCHEDULE), which are hereinafter referred to collectively as the "APPLICABLE PERMITS". The Seller possesses each Applicable Permit, each Applicable Permit is in full force and effect, the Seller is not in violation of or default under any Applicable Permit and all applicable fees and charges for such Applicable Permits that are already due and payable have been paid in full. To the knowledge of the Seller, no suspension or cancellation of any such Applicable Permit has been threatened in writing or otherwise.

3.14 BROKERS' FEES. Except as set forth in SECTION 3.14 OF THE SELLER DISCLOSURE SCHEDULE, the Seller does not have any liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement.

3.15 WARRANTY CLAIMS. SECTION 3.15 OF THE SELLER DISCLOSURE SCHEDULE sets forth the aggregate amounts incurred by Aurora and by the Seller in fulfilling warranty obligations in respect of its Beacon instruments in each full fiscal year since January 1, 1999 and during the eleven-month period ended November 30, 2002, along with the applicable guaranty, warranty and indemnity provisions. Owner and Seller have not incurred more than \$50,000 in fulfilling warrant obligations in respect of all other products of the Business in each full fiscal year since January 1, 1999 and during the eleven-month period ended November 30, 2002.

### 3.16 TAXES.

(a) Except as disclosed in SECTION 3.16(a) OF THE SELLER DISCLOSURE SCHEDULE, to the knowledge of the Seller, (i) the Seller (or other applicable Vertex Party) has timely filed (or will timely file) all Tax Returns required to be filed by it for Tax periods ending on or before the Closing Date relating to the Business Assets or the Business; (ii) all such Tax Returns are (or will be) true, complete, and correct in all material respects and disclose (or will disclose) all Taxes required to be paid by the Seller (or other applicable Vertex Party) for the periods covered thereby and all Taxes shown to be due on such Tax Returns have been (or will be) timely paid; (iii) all Taxes (whether or not shown on any Tax Return) owed by the Seller (or other applicable Vertex Party) relating to the Business Assets or the Business and required to be paid with respect to Tax periods ending on or before the Closing Date have been (or will be) timely paid or are being presently or will be contested in good faith; (iv) neither the Seller nor any other applicable

Vertex Party has waived or been requested to waive any statute of limitations in respect of Taxes relating to the Business Assets or the Business; (v) there is no action, suit, investigation, audit, claim or assessment pending, proposed or threatened with respect to Taxes owed by the Seller (or other applicable Vertex Party) relating to the Business Assets or the Business; (vi) all deficiencies asserted or assessments made as a result of any examination of the Tax Returns referred to in clause (i) have been paid in full; (vii) all monies required to be withheld by the Seller (including from Employees for income Taxes and social security and other payroll and employment Taxes) have been collected or withheld, and either paid to the respective Governmental Authorities, set aside in accounts for such purpose, or accrued, reserved against and entered upon the books and records of the Business; (viii) none of the Acquired Assets is "tax-exempt use property" within the meaning of Section 168(h) of the Code; (ix) there are no Liens for Taxes upon the Acquired Assets except Permitted Encumbrances; (x) no Governmental Authority with respect to which the Seller does not file Tax Returns has claimed that the Seller (or other applicable Vertex Party) is or may be subject to Taxes relating to the Business Assets or Business by that Governmental Authority; (xi) none of the Acquired Assets consists of an interest in an entity that is classified as a partnership for United States federal income tax purposes; (xii) none of the Acquired Assets consists of equity securities in an entity that, at any time, has been a member of any federal, state, local or foreign consolidated, unitary, combined, affiliated or similar group of corporations of which the Seller is or was a member; (xiii) the Seller is not a United States shareholder (as defined in

Section 951(b) of the Code) with respect to any Acquired Asset that constitutes an interest in a foreign corporation; (xiv) the Seller is not a party to any tax-sharing agreement or similar arrangement with any other party (nor is any other Vertex Party with respect to the Business and the Business Assets), and neither the Seller nor any other Vertex Party has assumed or agreed to pay any Tax obligations of, or with respect to any transaction relating to, any other Person or agreed to indemnify any other Person with respect to any Tax related to the Business or the Business Assets; (xv) neither the Seller nor any Vertex Party has filed any consent agreement under Section 341(f) of the Code or agreed to have Section 341(f)(4) apply to any disposition of assets owned by the Seller; (xvi) the Seller is not a party to any contract, agreement, plan or arrangement, including but not limited to the provisions of this Agreement, covering any Employee or former Employee which, individually or collectively, could reasonably be expected to give rise to the payment of any amount that would not be deductible as an expense by the Seller pursuant to Sections 280G, 404 or 162(m) of the Code or by similar applicable law; (xvii) the Seller is not required to make any adjustment under Section 481 of the Code or corresponding provision of state, local or foreign law by reason of any change in accounting method; and (xviii) the Seller does not have any liability for the Taxes of any Person under Treasury Regulation Section 1.1502-6 (or any similar provision of state, local or foreign law) as a transferee or successor, by contract or otherwise.

(b) No transaction contemplated by this Agreement is subject to withholding under Section 1445 of the Code and no sales Taxes, use Taxes, other similar Taxes will be imposed on the transfer of the Seller's right, title and interest in the Business Assets or the assumption of the Assumed Liabilities.

3.17 INVENTORY. Except as set forth on SECTION 3.17 OF THE SELLER DISCLOSURE SCHEDULE, the inventory reflected on the November 30 Balance Sheet

(i) is carried at not in excess of the lower of cost or net realizable value in accordance with GAAP; (ii) was acquired and maintained in the ordinary course of business; (iii) is of good and merchantable quality within industry

standards; and (iv) except with respect to obsolete inventory reflected in the November 30 Balance Sheet, is usable and/or saleable within a period of not less than one (1) year. Except for claims disclosed in SECTION 3.15 OF THE SELLER DISCLOSURE SCHEDULE and claims within the \$50,000 limitation described in

Section 3.15, neither the Owner nor the Seller has within the past two (2) years received notice of any liability or obligation with respect to the return of inventory purchased from the Business and in the possession of wholesalers, retailers or other customers for breach of warranty or otherwise, and to the knowledge of the Seller, there is no reasonable basis for such liability or obligation. All material inventory of the Business is located on the premises of the Seller in Madison, Wisconsin.

3.18 ABSENCE OF UNDISCLOSED LIABILITIES. Except as disclosed in SECTION 3.18 OF THE SELLER DISCLOSURE SCHEDULE, the Seller has no Liabilities required to be reflected on the face of a balance sheet prepared in accordance with GAAP, except:

- (a) those Liabilities set forth or reflected on the November 30 Balance Sheet and not heretofore paid or discharged;
- (b) Liabilities incurred by the Seller in the ordinary cause of business since November 30, 2002 which are not material individually or in the aggregate; and
- (c) Liabilities arising in the ordinary course of business under the Assigned Contracts (specifically excluding any Liabilities arising out of any breach or default (including for this purpose any event which, with notice or passage of time or both would constitute such a breach or default) by the Seller of any provision of any Assigned Contract).

3.19 REAL ESTATE.

(a) SECTION 3.19(a) OF THE SELLER DISCLOSURE SCHEDULE sets forth a correct list by premises, building, street address and tax lot number, and summary descriptions of all Real Estate owned, leased or used by the Owner or the Seller in the Business and identifies all surveys and title insurance policies in the Seller's possession covering any of, and all leases (whether as tenant or landlord) relating to, such properties. SECTION 3.19(a) OF THE SELLER DISCLOSURE SCHEDULE also identifies as to the Lease: (i) square footage; (ii) name of the landlord; (iii) the date and effective date; (iv) the expiration date, if any; (v) the monthly minimum charge, if any; (vi) arrearages, if any, and whether the latest payment due has been paid; (vii) any amount prepaid; (viii) a description of all documents constituting the Lease, including without limitation (A) landlord waiver of landlord liens, (B) subordination, non-disturbance and attornment agreements, (C) estoppel certificates and (D) recognition agreements; (ix) the amount or description of any concessions, allowances, rebates, refunds, deposits, setoffs, or escrows relating to it; (x) any options to renew, extend, purchase, cancel or terminate; (xi) any defaults, outstanding notices of defaults of any kind or nature whatsoever, claims of defaults or similar claim; (xii) any guaranties, letters of credit or other Third-Party credit enhancements; and (xiii) any written or oral notices of increases in operating expenses, taxes or of expenditures for capital improvements.

(b) The Seller has a valid and existing leasehold interest under the Lease for the term set forth thereto in SECTION 3.19(a) OF THE SELLER DISCLOSURE SCHEDULE.

(c) The Seller has provided to the Buyer a true and complete copy of the Lease.

(d) Except as set forth on SECTION 3.19(a) OF THE SELLER DISCLOSURE SCHEDULE, (i) the Seller is entitled to and has exclusive possession of the Real Estate, (ii) the Real Estate is not subject to any lease, tenancy or license or any agreement to grant such lease, tenancy or license, (iii) there is no person in possession or occupation of or who has or claims any right to possession or occupation of the Real Estate, and (iv) there are no easements of any kind in respect of the Real Estate adversely affecting the rights of the Seller therein to use the Real Estate for the conduct of the Business as presently conducted.

(e) With respect to the Real Estate:

(i) At the effective date of the Lease, to the knowledge the Seller, the lessor had good title to its leasehold interest in the Real Estate covered thereby and either (A) all consents necessary for the lessor to execute and deliver the Lease were obtained or (B) no such consents were required under the Lease.

(ii) To the knowledge of the Seller, there are no circumstances that would entitle or require the lessor to exercise any power of entry upon or of taking possession of any of such Real Estate.

(iii) The Seller is not in default under any of the terms of the Lease.

(iv) No notice of any alleged breach of any of the terms of the Lease has been served on or received by the Seller.

(v) Except as set forth on SECTION 3.19(a) OF THE SELLER DISCLOSURE SCHEDULE, the Seller has paid all rents and service charges to the extent such rents and charges are due and payable.

(vi) To the knowledge of the Seller, the lessor is not in default under any of the terms of the Lease.

(f) Each of the properties comprising the Real Estate is available for immediate use in the operation of the Business and for the purpose for which such property currently is being utilized.

(g) No written notice of violation of any applicable laws relating to zoning, health and safety of, and access to, the improvements on the Real Estate (including without limitation, the Americans With Disabilities Act) has been served on or received by the Seller, and, to the knowledge of Seller, the Real Estate is zoned for the purposes for which it is being used by the Seller. Further, no written notice of violation of any applicable laws, rules or regulations, or licenses and permits required by governmental or regulatory authorities, in connection with the use, occupancy, ownership or operation of the Real Estate (including the buildings located thereon) has been served on or received by the Seller.

(h) Subject to the terms and conditions of the Lease and except as set forth on SECTION 3.19(a) OF THE SELLER DISCLOSURE SCHEDULE, the Seller has full legal rights under the Lease

to the use and enjoyment of all of the Real Estate for the operation of the Business as presently conducted by the Seller.

- (i) The Seller has not entered into any commitment (whether legally binding or not) with any Person who owns or occupies any property adjacent or near to any of the Real Estate to do any act or thing or make any payment to any person in connection with or relating to any use or occupancy of the Real Estate by any Person.
- (j) No resolution, proposal, order, act or other notice of any acquisition by condemnation or otherwise of any of the Real Estate or the roads abutting the Real Estate by any Governmental Authority has been served on or received by the Seller, nor has any notice of a proposed or filed suit, action or proceeding for condemnation of the Real Estate, the roads abutting the Real Estate or affecting the Real Estate been served on or received by the Seller, nor does Seller have any actual knowledge thereof.
- (k) The Real Estate is served by drainage, water, electricity, gas and telecommunications services which is adequate for the operation of the Business as presently conducted by the Seller.
- (l) Except as set forth on SECTION 3.19(a) OF THE SELLER DISCLOSURE SCHEDULE, the Seller has not assigned any lease or tenancy in the Real Estate.
- (m) Other than the rights of the Buyer pursuant to this Agreement, there are no outstanding options or rights of first refusal to purchase the Real Estate, or any portion thereof or interest therein.
- (n) There has been no labor performed, material purchased or any other construction, whether direct or indirect, in connection with the Real Estate which could be the basis of any liens, claims or actions of any subcontractor, laborer, mechanic or materialman for labor performed or material supplied which are not being paid in the ordinary course of business.
- (o) There are no suits, actions or proceedings pending against the Seller with respect to the Real Estate or any part thereof which, if adversely decided, would affect the Buyer's use of the Real Estate or would adversely affect the Real Estate in any manner.
- (p) Other than Permitted Encumbrances, all fixtures, furniture and equipment located on or in the Real Estate are free and clear of any and all claims, liens, demands, charges, attachments or encumbrances.
- (q) The Seller has not received notice of any unpaid private assessments or liens under any declarations of covenants, conditions and restrictions.
- (r) The Seller has not received any written notice from any Governmental Authority in connection with the Seller's occupancy, use or operation, or the condition of, the Real Estate, including any notice regarding any non-compliance with laws, which would adversely affect the Real Estate in any material respect after the Closing.

3.20 EXPORTS AND CUSTOMS. Except as set forth in SECTION 3.20 OF THE SELLER DISCLOSURE SCHEDULE, the Seller is in compliance in all material respects with all applicable export and customs statutes, rules and regulations of the United States and any applicable foreign Governmental Authority relating to the products, services and technologies of the Business.

3.21 INSURANCE. SECTION 3.21 OF THE SELLER DISCLOSURE SCHEDULE contains a complete and correct list of all policies of insurance held by any Vertex Party covering any of the Business Assets, true, correct and complete copies of which have been made available to the Buyer. All such policies are in full force and effect. All premiums due on such policies have been paid in full. There is no default with respect to any provision contained in any such policy that could have an adverse effect upon the ability of the insured to collect insurance proceeds under such policy, nor has there been any failure by the insured to give any notice or present any claim under any such policy in a timely fashion or in the manner or detail required by the policy. No notice of cancellation or non-renewal with respect to, or disallowance of any claim under, any such policy has been received by the Seller.

### 3.22 LABOR RELATIONS.

(a) No Employee is represented by any union or other labor organization. There is no unfair labor practice charge pending or, to the knowledge of the Seller, threatened against the Seller relating to any of the Employees or Former Employees. There are no negotiations or strikes, disputes, slow downs or stoppages relating to the Business pending or, to the knowledge of the Seller, threatened against or involving Employees or the Business. No labor grievance relating to any of the Employees or Former Employees is pending. The Seller has not in the past three years experienced any work stoppage or other labor difficulty or organizational activity relating to any of the Employees or the Business.

(b) There are no pending claims against the Seller or the Business (whether under federal or state law, employment agreements or otherwise) asserted or to the knowledge of the Seller, threatened by any Employee or Former Employee on account of or for (i) overtime pay, other than overtime pay for work done during the current payroll period; (ii) wages or salary for any period other than the current payroll period; (iii) any amount of vacation or sabbatical pay or pay in lieu of vacation or time off; or (iv) any violation of any statute, ordinance or regulation relating to minimum wages or maximum hours at work. To the knowledge of the Seller, no basis for such claims exist.

3.23 WARN ACT. Since the enactment of the Worker Adjustment and Retraining Notification Act, as amended (the "WARN ACT"), the Seller has not effectuated (i) a "plant closing" (as defined in the WARN Act) affecting any site of employment or one or more facilities or operating units within any site of employment or facility of the Business; or (ii) a "mass layoff" (as defined in the WARN Act) affecting any site of employment or one or more facilities or operating units within any site of employment or facility of the Business; nor has the Seller been affected by any transaction or engaged in layoffs or employment terminations with respect to the Business sufficient in number to trigger application of any similar state or local law. None of the current Employees has suffered an "employment loss" (as defined in the WARN Act) within six months prior to date hereof.



3.24 ACCOUNTS RECEIVABLE. Except as set forth on SECTION 3.24 OF THE SELLER DISCLOSURE SCHEDULE, the accounts receivable of the Seller arising from the Business as set forth on the November 30 Balance Sheet and arising since the date thereof are valid receivables arising from sales actually made and services actually performed by the Seller in the ordinary course of business and consistent with GAAP; are not subject to any valid defenses, setoffs or counterclaims; and are generally collectible within ninety (90) days after billing at the full recorded amount thereof, less in the case of accounts receivable appearing on the November 30 Balance Sheet, the recorded allowance for doubtful accounts reflected thereon (and with respect to those arising since the November 30 Balance Sheet, less a comparable provision for doubtful accounts). The allowance for doubtful accounts on the November 30 Balance Sheet has been determined in accordance with GAAP applied on a consistent basis.

3.25 CUSTOMERS. SECTION 3.25 OF THE SELLER DISCLOSURE SCHEDULE sets forth

(i) the names of the five (5) largest customers of the Business (direct or indirect), in terms of sales over the eleven (11) months ended November 30, 2002 (the "KEY CUSTOMERS"), and (ii) the sales of the Seller to each of the Key Customers. Except as set forth in SECTION 3.25 OF THE SELLER DISCLOSURE SCHEDULE, neither the Owner nor Seller has received any notice in the twelve (12) months preceding the date of this Agreement nor has any present knowledge that any Key Customer intends to terminate or materially reduce its business with Seller.

3.26 DISCLOSURES REGARDING BUSINESS ASSETS. EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES SET FORTH IN THIS AGREEMENT, THE SELLER EXPRESSLY DISCLAIMS ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, AS TO LIABILITIES, OPERATIONS, TITLE, CONDITION, VALUE OR QUALITY OF THE BUSINESS ASSETS OR THE PROSPECTS, FINANCIAL OR OTHERWISE, RISKS AND OTHER INCIDENTS OF THE BUSINESS ASSETS. EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES SET FORTH IN THIS AGREEMENT, THE SELLER SPECIFICALLY DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY, USAGE, OR SUITABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH RESPECT TO THE BUSINESS ASSETS OR ANY PART THEREOF, OR AS TO THE WORKMANSHIP THEREOF, OR THE ABSENCE OF ANY DEFECTS THEREIN, WHETHER LATENT OR PATENT, OR COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS, OR WHETHER THE SELLER POSSESSES SUFFICIENT REAL PROPERTY, PERSONAL PROPERTY OR INTELLECTUAL PROPERTY TO OPERATE THE BUSINESS. OTHER THAN THE SELLER DISCLOSURE SCHEDULE, NO SCHEDULE OR EXHIBIT TO THIS AGREEMENT OR ANY RELATED COMMUNICATIONS MADE BY THE SELLER OR ANY VERTEX PARTY, OR BY ANY BROKER OR INVESTMENT BANKER, OR ANY ORAL, WRITTEN OR ELECTRONIC RESPONSE TO ANY INFORMATION REQUEST PROVIDED TO BUYER, WILL CAUSE OR CREATE ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, OTHER THAN THOSE SET FORTH IN THIS AGREEMENT.

**ARTICLE IV  
REPRESENTATIONS AND WARRANTIES OF THE  
BUYER**

The Buyer represents and warrants to the Owner and the Seller that the statements contained in this Article IV are true and correct as of the date hereof.

4.1 ORGANIZATION. The Buyer is a corporation, duly organized, validly existing and in good standing under the laws of the state of Delaware.

4.2 AUTHORITY. The Buyer has all requisite corporate power and authority to execute and deliver this Agreement and the Ancillary Agreements and to perform its obligations hereunder and thereunder. The execution and delivery by the Buyer of this Agreement and the Ancillary Agreements and the consummation by the Buyer of the transactions contemplated hereby and thereby have been duly authorized by all necessary corporate action on the part of the Buyer and no other authorization or consent of the Buyer or its shareholders is necessary. This Agreement has been, and such Ancillary Agreements will be, duly executed and delivered by the Buyer and, assuming this Agreement and each such Ancillary Agreement constitute the valid and binding obligation of the other Parties thereto, this Agreement constitutes, and each such Ancillary Agreement will constitute, a valid and binding obligation of the Buyer, enforceable against the Buyer in accordance with its terms.

4.3 NONCONTRAVENTION. Subject to compliance with the applicable requirements of the Hart-Scott-Rodino Act and applicable foreign antitrust or trade regulation laws, neither the execution and delivery by the Buyer of this Agreement and the Ancillary Agreements nor the consummation by the Buyer of the transactions contemplated hereby or thereby, will:

(a) conflict with or violate any provision of the certificate of incorporation or by-laws of the Buyer;

(b) require on the part of the Buyer any filing with, or permit, authorization, consent or approval of, any Governmental Authority, except for any filing, permit, authorization, consent or approval which if not obtained or made would not reasonably be expected to materially impair the ability of the Buyer to consummate the transactions contemplated by this Agreement (a "BUYER MATERIAL ADVERSE EFFECT");

(c) conflict with, result in a breach of, constitute (with or without due notice or lapse of time or both) a default under, result in the acceleration of obligations under, create in any party any right to terminate or modify, or require any notice, consent or waiver under, any contract or agreement to which the Buyer is a party or by which the Buyer is bound, except for (i) any conflict, breach, default, acceleration or right to terminate or modify that would not reasonably be expected to result in a Buyer Material Adverse Effect or (ii) any notice, consent or waiver the absence of which would not reasonably be expected to result in a Buyer Material Adverse Effect;

(d) violate any order, writ, injunction or decree specifically naming the Buyer or any of its respective properties or assets which would reasonably be expected to have a Buyer Material Adverse Effect; or

(e) violate any statute, rule or regulation applicable to the Buyer or any of its properties or assets, except for any violation that would not reasonably be expected to result in a Buyer Material Adverse Effect.

4.4 LITIGATION. There are no actions, suits, claims or legal, administrative or arbitratorial proceedings pending against, or, to the knowledge of the Buyer, threatened against, the Buyer which would reasonably be expected to have a Buyer Material Adverse Effect.

4.5 BROKERS' FEES. The Buyer has no liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement.

4.6 REPRESENTATIONS AND WARRANTIES. The representations and warranties set forth in this Agreement constitute the sole and exclusive representations and warranties of the Seller and the Owner in connection with the transactions contemplated hereby. There are no representations, warranties, covenants, understandings or agreements among the Parties regarding the Business Assets, the Assumed Liabilities or the Business or their transfer other than those contained in this Agreement and the Ancillary Agreements. Except for the representations and warranties expressly set forth in this Agreement, the Buyer disclaims reliance on any representations, warranties or guarantees, either express or implied, by the Seller or the Owner or any of their Affiliates including, without limitation, any oral, written or electronic response to any information request provided to the Buyer. **PRIOR TO THE EXECUTION OF THIS AGREEMENT, THE BUYER HAS CONDUCTED TO ITS SATISFACTION ALL NECESSARY AND SUFFICIENT EXAMINATION OF THE BUSINESS ASSETS AND THE BUSINESS, AND IS RELYING ON ITS OWN EXAMINATION OF THE BUSINESS ASSETS, AND IS NOT RELYING ON ANY REPRESENTATION OR WARRANTY MADE BY THE SELLER (OTHER THAN THOSE SET FORTH IN THIS AGREEMENT), OR ANY PERSON PURPORTING TO ACT ON BEHALF OF THE SELLER.**

## **ARTICLE V PRE-CLOSING COVENANTS**

5.1 CLOSING EFFORTS; HART-SCOTT-RODINO ACT; OBLIGATIONS OF OTHER VERTEX PARTIES.

(a) Subject to the terms hereof, including Sections 5.1(b) and 5.1(c), the Buyer, the Owner and the Seller shall, and the Owner and the Seller shall cause each of the other Vertex Parties to, use commercially reasonable efforts to take all actions and to do all things reasonably necessary or advisable to consummate the transactions contemplated by this Agreement, including using reasonable commercial efforts to:

(i) obtain all waivers, permits, consents, approvals or other authorizations from Governmental Authorities and from other third parties (including those consents listed in SECTION 3.3(c) OF THE SELLER DISCLOSURE SCHEDULE) (the "THIRD-PARTY CONSENTS"); provided that the Buyer shall not be required to make any payment to obtain any consent listed in SECTION 3.3(c) OF THE SELLER DISCLOSURE SCHEDULE, and no Vertex Party shall be required to make any payment to obtain any such consent other than as set forth on SCHEDULE

5.1(a)(i) attached hereto;

- (ii) effect all registrations, filings and notices with or to Governmental Authorities (the "GOVERNMENTAL FILINGS");
- (iii) obtain from each of the counterparties to the contemplated Contract Administration Agreements, prior to Closing, the novations described in Section 2.7 of the Contract Administration Agreement; and
- (iv) Prior to the Closing, the Owner shall cause Vertex San Diego to have taken the actions described in SCHEDULE 5.1(a)(iv).
- (v) otherwise comply in all material respects with all applicable laws and regulations in connection with the consummation of the transactions contemplated by this Agreement.

The Owner and the Seller shall not, and the Owner and the Seller shall cause the other Vertex Parties not to, without prior consent of the Buyer, agree to any condition for obtaining any of the Third-Party Consents that would affect in an adverse manner the Business Assets or the Business. Each of the Parties shall promptly notify the other Parties hereto in writing of any fact, condition or event known to it that would reasonably be expected to prohibit, make unlawful or delay the consummation of the transactions contemplated by this Agreement, including any material default under any Material Contract or event that becomes known to the Seller that, with notice or lapse of time or both, would become a material default under any Material Contract.

(b) Without limiting the generality of the foregoing, the Buyer, the Owner and the Seller shall:

- (i) promptly file any Notification and Report Forms and related material that it may be required to file with the Federal Trade Commission and the Antitrust Division of the United States Department of Justice under the Hart-Scott-Rodino Act;
- (ii) use commercially reasonable efforts to obtain an early termination of the applicable waiting period under the Hart-Scott-Rodino Act;
- (iii) make any further filings or information submissions pursuant thereto that may be reasonably necessary or advisable; and
- (iv) promptly make any filings or submissions required under any applicable foreign antitrust or trade regulation law.

The Buyer, the Owner and the Seller shall act diligently and reasonably, and will cooperate with each other, to transfer all transferable Governmental Authority licenses of the Seller or any other Vertex Party relating to the Business Assets and secure any approvals of any Governmental Authority required to be obtained by them that relate to such transactions. The Owner and the Seller shall not, without the prior consent of the Buyer, agree to any condition for obtaining any of the approvals that would affect the Business Assets or the Business in an adverse manner. Each of the Parties shall use commercially reasonable efforts to resolve any objections that may be asserted by any Governmental Authority with respect to the transactions contemplated hereby, and shall cooperate with each other to contest any challenges to the transactions contemplated

hereby by any Governmental Authority. Each of the Parties shall promptly inform the others of any material communication received by such Party from the Federal Trade Commission, the Antitrust Division of the Department of Justice or any other Governmental Authority regarding any of the transactions contemplated hereby (unless the provision of such information would (x) violate the provisions of any applicable laws or regulations (including without limitation those relating to security clearance or export controls) or any confidentiality agreement or (y) cause the loss of the attorney-client privilege with respect thereto).

(c) Notwithstanding the foregoing, nothing contained in this Agreement shall require or obligate the Buyer or its Affiliates:

(i) to initiate, pursue or defend any litigation (or threatened litigation) to which any Governmental Authority (including the Antitrust Division of the Department of Justice and the Federal Trade Commission) is a party;

(ii) to agree or otherwise become subject to any material limitations on (A) the right of the Buyer effectively to control or operate the Business or the Buyer's right, title and interest in the Business Assets, (B) the right of the Buyer or its Affiliates to acquire or use the Business Assets, or (C) the right of the Buyer to exercise full rights of ownership of the Acquired Assets; or

(iii) to agree or otherwise be required to sell or otherwise dispose of, hold separate (through the establishment of a trust or otherwise), or divest itself of all or any portion of the business, assets or operations of the Buyer, any Affiliate of the Buyer, the Business or any of the Buyer's right, title and interest in the Business Assets.

5.2 OPERATION OF THE BUSINESS. Except as contemplated by this Agreement, during the period from the date of this Agreement until the Closing Date, the Buyer, the Seller and the Owner agree that, prior to the Closing, unless the Buyer shall otherwise consent in writing, the following provisions shall apply:

(a) the Seller shall carry on the Business in the ordinary course;

(b) the Seller shall use commercially reasonable efforts to maintain and preserve the Business intact, maintain the insurance of the Business at historic levels, comply with all material laws, preserve the goodwill of suppliers, customers and others having business relations with the Business and maintain the Business, as well as the Seller's books of account, records and files related to the conduct of the Business, all in the ordinary course of business;

(c) the Owner or the Seller shall inform the Buyer in writing of any event or circumstance that (i) has or could reasonably be expected to have a Business Material Adverse Effect, (ii) is a breach of a representation, warranty, covenant or agreement of the Seller or Owner herein or that (iii) is listed on SCHEDULE 1 hereof, each no later than three (3) Business Days after obtaining knowledge of such an event or circumstance;

(d) the Owner and the Seller shall inform the Buyer in writing of any event or circumstance that has or could reasonably be expected to have a material adverse effect with

respect to the Real Estate no later than three (3) Business Days after obtaining knowledge of such an event or circumstance, including, without limitation:

- (i) a fire or other casualty causing significant damage to the Real Estate;
  - (ii) receipt of notice of eminent domain proceedings or condemnation of all or any part of the Real Estate;
  - (iii) receipt of a notice from any Governmental Authority or insurance underwriter relating to the condition, use or occupancy of the Real Estate or any real estate adjacent to the Real Estate or setting forth any requirements with respect thereto;
  - (iv) receipt or delivery of any default or termination notice or claim of offset or defense to the payment of rent from any tenant of all or any portion of the Real Estate;
  - (v) receipt of any notice of default from the holder of any lien or security interest in the Real Estate or any portion thereof;
  - (vi) notice of any actual or threatened litigation against the Seller affecting or relating to the Real Estate;
  - (vii) the commencement of any strike, lock-out, boycott or other labor trouble affecting the Real Estate; or
  - (viii) receipt of any Tax assessment disputes prior to Closing, and the Seller will not agree to any changes in the real estate Tax assessment, nor settle, withdraw or otherwise compromise any pending claims with respect to prior Tax assessments without the Buyer's prior written consent, and, if any proceedings shall result in any reduction of assessment and/or Tax for the Tax year in which the Closing occurs, it is agreed that the amount of Tax savings or refund for such Tax year less the fees and disbursements in connection with such proceedings, shall be apportioned between the parties as of the date the real estate Taxes are apportioned under this Agreement;
- (e) except as contemplated by this Agreement, or except with the Buyer's express written approval, the Seller shall not, except as otherwise provided for in SCHEDULE 5.2(e):
- (i) commit to make, or make, any capital expenditure in excess of \$100,000 in the aggregate relating to the Business;
  - (ii) except as otherwise permitted by Section 5.2(e)(vii) below, enter into any contract, agreement or arrangement (oral or written) which would constitute a Material Contract of the type identified in Section 3.9(a), 3.9(b), 3.9(c), 3.9(d), 3.9(f), 3.9(g) or 3.9(h);
  - (iii) enter into any other type of contract, agreement or arrangement (oral or written) which would constitute a Material Contract under Section 3.9(e) hereof, unless such contract, agreement or arrangement is entered into in the ordinary course of business pursuant to standard terms and conditions and does not involve the receipt or payment by the

Seller of aggregate consideration or value of more than \$50,000, and then only after first consulting with the Buyer (although, as to this type of Material Contract, Buyer's prior written consent shall not be required as a precondition to the Seller's entering into such Material Contract);

(iv) enter into any contract, agreement or arrangement (oral or written) that requires the consent or approval of any Third-Party to consummate the transactions described in this Agreement or any Ancillary Agreement;

(v) cancel or make any modifications or amendments to any Material Contract;

(vi) sell, lease (as lessor), transfer or otherwise dispose of any Business Assets, other than inventory sold in the ordinary course of business and other than cash or short-term marketable securities (other than the Investments);

(vii) grant or transfer any rights to the Proprietary Assets that are part of the Business Assets (other than any non-exclusive, non-perpetual licenses entered into in the ordinary course of business pursuant to standard terms and conditions which (a) do not involve the receipt or payment by the Seller of aggregate consideration or value of more than \$200,000 and (b) do not provide for the use of rights that were exclusive to the Vertex Parties prior to such license, and then only after first consulting with the Buyer (although Buyer's prior written consent shall not be required as a pre-condition to the Seller's entering into such license));

(viii) fail to prosecute, defend and maintain in a manner consistent with past practice any Proprietary Assets that are part of the Business Assets;

(ix) mortgage or pledge any Business Assets, except for Permitted Encumbrances;

(x) cancel any debts owed to or claims held by the Seller relating to the Business (including the settlement of any claim or litigation) other than in the ordinary course of business;

(xi) accelerate or delay collection of any notes or accounts receivable generated by the Business in advance of or beyond their regular due dates or the dates when the receivable would have been collected in the ordinary course of the Business;

(xii) change the accounting policies applied in the preparation of the November 30 Balance Sheet, or make or revoke any Tax election or settle or compromise any Tax liability that would affect the Business Assets or the Assumed Liabilities after the Closing;

(xiii) prepare or file any Tax Return with respect to the Business Assets or the Assumed Liabilities inconsistent with past practice or, on any such Tax Return, take any position, make any election, or adopt any method that is inconsistent with the position taken, elections made or methods used in preparing similar Tax Returns with respect to the Business Assets or the Assumed Liabilities in prior periods;

(xiv) make or promise to make any severance or termination benefits or any increase in any salaries, rates of pay or other compensation or benefits of any Seller Employees, except for customary increases and progressions for employees consistent with past practices which increases and progressions were made in the ordinary course of business and except for matters set forth on SCHEDULE 5.2(e)(xiv);

(xv) hire any additional Employees, except as set forth on SCHEDULE 5.2(e)(xv); or

(xvi) enter into any agreement or commitment to take any action prohibited by this Section 5.2.

**5.3 ACCESS.** During the period from the date of this Agreement until the Closing Date, the Owner and the Seller shall permit representatives of the Buyer to have access (at reasonable times, on reasonable (and in any event not less than three Business Days') prior written notice and in a manner that in the reasonable opinion of Owner will not interfere with the normal business operations of the Business or the business of the Vertex Parties) to the Real Estate and other operational locations of the Business for inspecting, investigating, measuring, surveying and making related inquiries and audits of the Real Estate, financial and accounting records, contracts, personnel and other records and documents of the Seller pertaining to the Business (including for the purpose of conducting environmental investigations). Notwithstanding the foregoing, the Owner and the Seller shall not be obligated to provide any information, documents or access to any person unless the Buyer is responsible, pursuant to the terms of the Confidentiality Agreement dated September 25, 2002 (the "CONFIDENTIALITY AGREEMENT") between the Owner and the Buyer, for the use and disclosure of any information obtained by such person from the Vertex Parties, or such person enters into a confidentiality agreement with the Owner and the Seller on terms that are substantially the same as those set forth in the Confidentiality Agreement. The Buyer, the Owner and the Seller acknowledge and agree that the Confidentiality Agreement remains in full force and effect and that information provided by the Owner or the Seller to the Buyer or the Parent or their Affiliates pursuant to this Agreement prior to the Closing shall be treated in accordance with the Confidentiality Agreement. If this Agreement is terminated prior to the Closing, the Confidentiality Agreement shall remain in full force and effect in accordance with its terms. If the Closing occurs, the Confidentiality Agreement, insofar as it covers information relating to the Business Assets, shall terminate effective as of the Closing, but shall remain in effect insofar as it covers other information disclosed thereunder.

**5.4 EXCLUSIVITY.** During the period from the date of this Agreement until the Closing Date, or, if earlier, the termination of this Agreement, each of the Owner and the Seller shall not, directly or indirectly, authorize or permit any of its officers, directors, managers, employees, agents, advisors or representatives to, (a) initiate, solicit or encourage any proposal, offer or discussion with any party (other than the Buyer) concerning any acquisition of any portion of the Business or any of the equity of the Seller; (b) engage in discussions or negotiations with any party (other than the Buyer) concerning any such acquisition transaction; (c) enter into any agreement relating to any such acquisition transaction; (d) furnish to any Person nonpublic information relating to the Business; or (e) take any other action to cooperate in any way, or facilitate any inquiries or the making of any proposal that constitutes, or may reasonably be



expected to lead to, any such acquisition transaction. The Owner and the Seller shall notify the Buyer if it receives a proposal for the acquisition of the Business or the Seller on or after the date hereof and prior to the Closing; provided, that the Owner and the Seller shall be under no obligation to disclose to the Buyer the identity of the Person making any such acquisition proposal nor the terms thereof; and provided, further, that nothing in this Section 5.4 shall obligate the Seller or the Owner to disclose to the Buyer any proposal to acquire the Owner or any of the Owner's other subsidiaries or businesses other than the Business and the Seller.

**5.5 NOTICE OF LITIGATION.** The Buyer will promptly notify the Owner and the Seller of any action, suit or proceeding that is instituted or threatened against the Buyer to restrain, prohibit or otherwise challenge the legality of any transaction described in this Agreement arising prior to the Closing Date. The Owner and the Seller will promptly notify the Buyer of any action, suit or proceeding that is instituted or threatened against the Seller to restrain, prohibit or otherwise challenge the legality of any transaction described in this Agreement arising prior to the Closing Date. The Owner and the Seller will promptly notify the Buyer of any lawsuit, claim, proceeding or investigation that is threatened, brought or asserted against Seller that would have been listed in Article III if the lawsuit, claim, proceeding or investigation had arisen prior to the date of this Agreement.

**5.6 SUPPLEMENTS TO THE SELLER DISCLOSURE SCHEDULE.**

(a) As promptly as practicable, the Owner and the Seller will provide the Buyer with a supplement or amendment to the Seller Disclosure Schedule with respect to any matter, condition or occurrence hereafter arising which, if existing or occurring on the date of this Agreement, would have been required to be set forth or described in such Seller Disclosure Schedule, and if not so set forth or described, would have constituted a material breach of this Agreement. In addition, the Owner and the Seller shall promptly inform the Buyer, and the Buyer will promptly inform the Owner and the Seller, of any fact or event which comes to its attention, the existence of which constitutes or likely will constitute a material breach of any representation or warranty of the other party in this Agreement; PROVIDED, that except as otherwise provided in Section 7.7 hereof, no such action shall be deemed to cure any breach of or alter any representation or warranty made in this Agreement so as to (a) permit the Closing to occur unless the Buyer (or the Seller, as the case may be) specifically agrees thereto in writing or (b) affect the Buyer's (or the Seller's, as the case may be) rights to indemnification hereunder.

(b) As promptly as practicable after the date of this Agreement, the Owner and the Buyer shall make a good faith determination of whether or not the material transfer agreements listed on SCHEDULE 5.6(b) attached hereto are to become Assigned Contracts. In making such determination, the Parties will be guided by the principle that the provisions of such material transfer agreements which relate to materials transferred to the Seller prior to the Closing Date (or the entire material transfer agreement, if the agreement relates only to such materials) will be assigned to the Seller, for subsequent assignment to the Buyer. In the event a dispute arises between the Parties with respect to the determination by the Owner and the Buyer, there shall be a rebuttable presumption that the agreements that are the subject of the dispute are to be Assigned Contracts. Upon a determination that a material transfer agreement (or a portion thereof) is to be an Assigned Contract, such material transfer agreement (or the portion of such agreement which relates to materials previously transferred to the Seller) will be assigned to the

Seller prior to the Closing Date, and in connection with the Closing the Buyer will grant such licenses to the Vertex Parties as may be reasonably necessary to permit the Vertex Parties to share the benefit of any rights under such material transfer agreements which are granted back to the Buyer (as the assignee of such agreements).

## **ARTICLE VI CONDITIONS PRECEDENT TO CLOSING**

6.1 CONDITIONS TO OBLIGATIONS OF THE BUYER. The obligation of the Buyer to consummate the transactions contemplated hereby at the Closing is subject to the satisfaction (or waiver by the Buyer) of the following conditions:

(a) without giving effect to any supplement or amendment to the Seller Disclosure Schedule, the representations and warranties of the Owner and the Seller set forth in Article III shall have been true and correct in all material respects (other than those that are qualified as to materiality, which shall have been true and correct in all respects) when made (except where any such failure of such representations and warranties to be true in all material respects does not result in or involve a Material Loss to the Seller, the Business Assets or the Business) and as of the Closing Date as though made again on the Closing Date (except where any such failure of such representations and warranties to be true in all material aspects as though made again on the Closing Date would not constitute a Business Material Adverse Effect);

(b) each of the Vertex Parties shall have performed or complied in all material respects with the agreements and covenants required to be performed or complied with by it under this Agreement as of or prior to the Closing;

(c) no action, suit or proceeding shall be pending by or before any Governmental Authority seeking to prevent consummation of the transactions contemplated by this Agreement or any of the Ancillary Agreements, and no judgment, order, decree, stipulation or injunction enjoining or preventing the consummation of the transactions contemplated by this Agreement or any of the Ancillary Agreements shall be in effect;

(d) the Owner and the Seller shall have delivered to the Buyer a certificate (the "SELLER CERTIFICATE") signed by a duly authorized officer of the Seller to the effect that each of the conditions specified in clauses (a) through (c) (insofar as clause (c) relates to an action, suit or proceeding involving, or a judgment, order, decree, stipulation or injunction against, the Seller) of this Section 6.1 have been satisfied;

(e) the Buyer shall have received from Kenneth S. Boger, Esq., Senior Vice President and General Counsel of Owner, an opinion dated the Closing Date, in form and substance satisfactory to the Buyer;

(f) the Applicable Permits listed on SCHEDULE 6.1(f) shall have been renewed or be in effect and, if required, transferred or reissued to the Buyer;

(g) the applicable waiting period (and any extensions thereof) under the Hart-Scott-Rodino Act shall have expired or otherwise been terminated;

(h) the Owner and the Seller shall have obtained (or caused to be obtained) in form reasonably acceptable to the Buyer all of the Third-Party Consents set forth on SCHEDULE 6.1(h), and effected all of the Governmental Filings which are required on the part of the Owner and the Seller to consummate the transactions contemplated by this Agreement;

(i) the Buyer shall have received such other customary certificates (such as a certificate of good standing of the Seller in the jurisdiction of formation of the Seller and a certified copy of the Seller's limited liability company agreement, and certificates as to the incumbency of officers and the adoption of authorizing resolutions by the Seller's members and managers) as it shall reasonably request in connection with the Closing;

(j) the Owner and the Seller shall have delivered all certificates, instruments, contracts and other documents to be delivered by each of them pursuant to Section 2.3(b) (including all applicable Ancillary Agreements);

(k) no Business Material Adverse Effect shall have occurred;

(l) the Seller shall execute and deliver such affidavit of no mechanics' lien or parties in possession as shall be required by a title company to insure the Buyer's title to the Real Estate without exception for such; and

(m) the Buyer shall have obtained a title policy for the Real Property excluding from coverage only standard exceptions and the Permitted Encumbrances and in an amount reasonably satisfactory to it.

6.2 CONDITIONS TO OBLIGATIONS OF THE OWNER AND THE SELLER. The obligation of the Owner and the Seller to consummate the transactions contemplated hereby at the Closing is subject to the satisfaction (or waiver by the Owner and the Seller) of the following conditions:

(a) the representations and warranties of the Buyer set forth in Article IV shall have been true and correct in all material respects (other than those that are qualified as to materiality, which shall have been true and correct in all respects) when made (except where any such failure of such representations and warranties to be true in all material respects would not result in or involve a Material Loss to the Buyer), and as of the Closing Date as though made again on the Closing Date (except where any such failure of such representations and warranties to be true in all material aspects as though made again on the Closing Date would not constitute a Buyer Material Adverse Effect);

(b) the Buyer shall have performed or complied in all material respects with its agreements and covenants required to be performed or complied with by it under this Agreement as of or prior to the Closing;

(c) no action, suit or proceeding shall be pending by or before any Governmental Authority seeking to prevent consummation of the transactions contemplated by this Agreement or any of the Ancillary Agreements, and no judgment, order, decree, stipulation or injunction enjoining or preventing consummation of the transactions contemplated by this Agreement or any of the Ancillary Agreements shall be in effect;

- (d) the Buyer shall have delivered to the Seller a certificate (the "BUYER CERTIFICATE") signed by a duly authorized officer of the Buyer to the effect that each of the conditions specified in clauses (a) through (c) (insofar as clause (c) relates to an action, suit or proceeding involving, or a judgment, order, decree, stipulation or injunction against, the Buyer) of this Section 6.2 have been satisfied;
- (e) the Seller shall have received from in house counsel of the Buyer opinions dated the Closing Date in form and substance satisfactory to the Seller;
- (f) the applicable waiting period (and any extensions thereof) under the Hart-Scott-Rodino Act shall have expired or otherwise been terminated;
- (g) the Buyer shall have effected all of the Governmental Filings which are required on the part of the Buyer to consummate the transactions contemplated by this Agreement;
- (h) the Seller shall have received such other customary certificates (such as certificates as to the incumbency of officers and the adoption of authorizing resolutions by the Buyer's board of directors) as it shall reasonably request in connection with the Closing;
- (i) the Buyer shall have delivered all certificates, instruments, contracts and other documents to be delivered by it pursuant to Section 2.3(b) (including all applicable Ancillary Agreements); and
- (j) no Buyer Material Adverse Effect shall have occurred.

## **ARTICLE VII INDEMNIFICATION**

7.1 INDEMNIFICATION BY THE OWNER AND THE SELLER. Subject to the terms and conditions of this Article VII, from and after the Closing, the Owner and the Seller shall, on a joint and several basis, indemnify the Buyer and its officers, directors, managers, employees, agents, representatives and its Affiliates and their officers, directors, managers, employees, agents and representatives (the "BUYER INDEMNITEES") in respect of, and hold the Buyer Indemnitees harmless against, any and all liabilities, obligations, judgments, interest, losses, assessments, damages, fines, fees, penalties, costs and expenses (determined on a pre-tax basis, but after credit for applicable insurance proceeds actually received by an Indemnified Party with respect to such previously described liabilities, losses and the like, whether such receipt is before or after payment by an Indemnifying Party, subrogation rights of the Indemnified Party's insurers being hereby waived, and also including, without limitation, reasonable attorneys' fees and reasonable expenses of investigating and defending claims, lawsuits, complaints, actions or other pending or threatened litigation) (collectively the "DAMAGES") incurred or suffered by any of the Buyer Indemnitees to the extent resulting from or attributable to:

- (a) any breach of any representation or warranty of the Owner or the Seller contained in this Agreement;

(b) any failure by any Vertex Party to perform or observe any covenant or agreement required to be performed or observed by that Vertex Party contained in this Agreement or any Transfer Document;

(c) any failure by the Vertex Parties to pay, perform or discharge any Excluded Liabilities; or

(d) the items set forth on SCHEDULE 7.1(d), which items will be deemed to be Third-Party Claims in the event claims are made with respect thereto.

**7.2 INDEMNIFICATION BY THE BUYER.** Subject to the terms and conditions of this Article VII, from and after the Closing, the Buyer shall indemnify each of the Owner and the Seller and its officers, directors, managers, employees, agents, representatives and its Affiliates and their officers, directors, managers, employees, agents and representatives (the "SELLER INDEMNITEES") in respect of, and hold the Seller Indemnitees harmless against, any and all Damages incurred or suffered by any of the Seller Indemnitees to the extent resulting from or attributable to:

(a) any breach of any representation or warranty of the Buyer contained in this Agreement;

(b) any failure by the Buyer to perform or observe any covenant or agreement required to be performed or observed by it contained in this Agreement or any Transfer Document; or

(c) any failure by the Buyer to pay, perform or discharge any Assumed Liabilities.

### **7.3 CLAIMS FOR INDEMNIFICATION.**

(a) **THIRD-PARTY CLAIMS.** All claims for indemnification made under this Agreement resulting from, related to or arising out of a claim made by a Third-Party against an Indemnified Party (as defined below) shall be made in accordance with the following procedures. A person entitled to indemnification under this Article VII (an "INDEMNIFIED PARTY") shall give prompt written notification to the person from whom indemnification is sought (the "INDEMNIFYING PARTY") of the commencement of any action, suit or proceeding relating to a claim by a Third-Party (a "THIRD-PARTY CLAIM") for which indemnification may be sought or, if earlier, upon the assertion of any such claim by a Third-Party. Such notification shall include a description in reasonable detail (to the extent known by the Indemnified Party) of the facts constituting the basis for such Third-Party Claim and the amount of the Damages claimed. Within thirty (30) days after delivery of such notification, the Indemnifying Party may, upon written notice thereof to the Indemnified Party, assume control of the defense of such Third-Party Claim. If the Indemnifying Party does not assume control of such defense, the Indemnified Party shall control such defense. The party not controlling such defense may participate therein at its own expense; provided that if the Indemnifying Party assumes control of such defense and the Indemnified Party reasonably concludes, based on advice from counsel, that the Indemnifying Party and the Indemnified Party have conflicting interests with respect to such Third-Party Claim, the reasonable fees and expenses of counsel to the Indemnified Party solely in connection therewith shall be considered "Damages" for purposes of this Agreement;

PROVIDED, HOWEVER, that in no event shall the Indemnifying Party be responsible for the fees and expenses of more than one counsel for all Indemnified Parties. The Party controlling such defense shall keep the other Parties advised of the status of such Third-Party Claim and the defense thereof and shall consider recommendations made by the other Parties with respect thereto. Unless and until an Indemnified Party has waived its claim for indemnification under this Article VII with respect to a Third-Party Claim, the Indemnified Party shall not agree to any settlement of such Third-Party Claim without the prior written consent of the Indemnifying Party, which will not be unreasonably withheld. The Indemnifying Party shall not agree to any settlement of such Third-Party Claim that does not include a complete release of the Indemnified Party from all liability with respect thereto or that imposes any liability or obligation on the Indemnified Party or that restricts any of the rights purported to be transferred pursuant to this Agreement without the prior written consent of the Indemnified Party, which consent will not be unreasonably withheld.

(b) **PROCEDURE FOR OTHER CLAIMS.** An Indemnified Party wishing to assert a claim for indemnification under this Article VII which is not subject to Section 7.3(a) shall deliver to the Indemnifying Party a written notice (a "CLAIM NOTICE") which contains a statement that the Indemnified Party is entitled to indemnification under this Article VII, the amount of Damages incurred, if then ascertainable, and a reasonable explanation of the basis of the claim for indemnification and the Damages incurred. Within thirty (30) days after delivery of a Claim Notice, the Indemnifying Party shall deliver to the Indemnified Party a written response in which the Indemnifying Party shall: (i) agree that the Indemnified Party is entitled to indemnification hereunder (in which case the Indemnifying Party shall make payment to the Indemnified Party, by check or by wire transfer, in an amount equal to the Damages incurred or suffered), or (ii) contest that the Indemnified Party is entitled to indemnification hereunder or the amount of Damages claimed by the Indemnifying Party. If the Indemnifying Party in such response contests the right to indemnification hereunder, or if the Parties are unable to agree on the amount of Damages incurred or suffered, the Indemnifying Party and the Indemnified Party shall each have the right to submit such dispute to a court of competent jurisdiction in accordance with the provisions of Section 11.9.

#### 7.4 SURVIVAL.

(a) The representations and warranties of the Owner, the Seller, and the Buyer set forth in this Agreement shall survive the Closing and the consummation of the transactions contemplated hereby and continue until fifteen (15) months after the Closing Date, at which time they shall expire; PROVIDED, HOWEVER, (i) the representations and warranties contained in Sections 3.11 and 3.16 shall survive for sixty (60) days beyond the applicable statute of limitations and (ii) the representations and warranties of the Owner and the Seller contained in Sections 3.1, 3.2, and 3.14 and of the Buyer contained in Sections 4.1, 4.2, and 4.5 shall survive the Closing and the consummation of the transactions contemplated hereby without limitation.

(b) If an indemnification claim under Section 7.1(a) or Section 7.2(a) is properly asserted in writing pursuant to Section 7.3 prior to the expiration as provided in Section 7.4(a) of the representation or warranty that is the basis for such claim, then such representation or warranty shall survive until, but only for the purpose of, the resolution of such claim.

(c) The covenants and agreements of the Parties contained in this Agreement and the Transfer Documents shall survive the Closing and the consummation of the transactions contemplated hereby.

#### 7.5 LIMITATIONS.

(a) Notwithstanding anything to the contrary contained in this Agreement, the following limitations shall apply to indemnification claims under this Agreement:

(i) no claim shall be valid and assertable under Section

7.1(a) or Section 7.2(a) unless the aggregate amount of Damages incurred by the Indemnified Party under Section 7.1(a) or Section 7.2(a), as applicable, exceeds Three Hundred Thousand Dollars (\$300,000), in which case the Indemnified Party will have the right to indemnification for all Damages incurred in excess of Three Hundred Thousand Dollars (\$300,000);

(ii) notwithstanding anything to the contrary contained in this Article VII, the Owner and the Seller shall not have any obligation to indemnify the Buyer Indemnitees under Section 7.1(a) and with respect to Items 1 and 5 of SCHEDULE 7.1(d) in an amount in excess of fifty percent (50%) of the Purchase Price in the aggregate;

(iii) notwithstanding anything to the contrary contained in this Article VII, the Owner and the Seller shall not have any obligation to indemnify the Buyer Indemnitees with respect to Item 2 on SCHEDULE 7.1(d) in excess of the amount set forth in Item 2 of SCHEDULE 7.1(d);

(iv) notwithstanding anything to the contrary contained in this Article VII, the Owner and the Seller shall not have any obligation to indemnify the Buyer Indemnitees under Section 7.1(a) with respect to any matter with respect to which they are also entitled to indemnification under Section

7.1(d); and

(v) notwithstanding anything to the contrary contained in this Article VII, the Buyer shall not have any obligation under Section 7.2(a) to indemnify the Seller Indemnitees in an amount in excess of fifty percent (50%) of the Purchase Price in the aggregate.

(b) Notwithstanding anything to the contrary contained in this Article VII, no limitation or condition of liability provided in Section 7.5(a) shall apply to a breach of Sections 3.1, 3.2, 3.14, 3.16, 4.1, 4.2 or 4.5 hereof.

(c) The indemnification rights of the Parties under this Article VII are the sole and exclusive remedies for any breach of representation or warranty made by any Party in this Agreement; provided, that the foregoing (including but not limited to the limitations set forth in Section 7.5(a) hereof) shall not be deemed to limit the right of any Party to pursue indemnification or other remedies for claims involving fraud or intentional misconduct.

7.6 TREATMENT OF INDEMNIFICATION PAYMENTS. All indemnification payments made under this Agreement shall be treated by the Parties as an adjustment to the Purchase Price to the maximum extent allowable under applicable law.

7.7 EFFECT OF CLOSING. Upon the Closing, any condition to the obligations of any Party hereunder contained in Article VI that has not been satisfied, including any representation, warranty or covenant which to the actual knowledge of any Party has been materially breached or left unsatisfied by any other Party and which material breach or failure to satisfy by such other Party is a condition precedent to the first Party's obligation to consummate the transactions contemplated hereby, will be deemed to be waived by the Parties, and each Party will be deemed to fully release and forever discharge the other Parties on account of any and all claims, demands, or charges, known or unknown, with respect to the same. Nothing in this Section 7.7 shall be deemed to affect any provision herein which expressly survives the Closing or pertains to matters which occur after the Closing.

## **ARTICLE VIII TERMINATION**

8.1 TERMINATION OF AGREEMENT. The Parties may terminate this Agreement prior to the Closing as provided below:

- (a) the Parties may terminate this Agreement by mutual written consent;
- (b) the Buyer may terminate this Agreement by giving written notice to the Seller and the Owner if the Seller or the Owner has materially breached any representation, warranty, covenant or agreement contained in this Agreement and such breach (i) would cause the conditions set forth in Section 6.1 not to be satisfied and (ii) is not cured within thirty (30) days following delivery by the Buyer to the Owner and the Seller of written notice of such breach;
- (c) the Owner and the Seller may terminate this Agreement by giving written notice to the Buyer if the Buyer has materially breached any representation, warranty, covenant or agreement contained in this Agreement and such breach (i) would cause the conditions set forth in Section 6.1 not to be satisfied and (ii) is not cured within thirty (30) days following delivery by the Seller and the Owner to the Buyer of written notice of such breach;
- (d) the Buyer may terminate this Agreement by giving written notice to the Owner and the Seller if the Closing shall not have occurred on or before May 15, 2003 provided that the Buyer is not in material breach under this Agreement at the time it seeks to terminate under this Section 8.1(d);
- (e) the Owner and the Seller may terminate this Agreement by giving written notice to the Buyer if the Closing shall not have occurred on or before May 15, 2003 provided that the Owner and the Seller are not in material breach under this Agreement at the time they seek to terminate under this Section 8.1(e).

8.2 EFFECT OF TERMINATION. If any Party terminates this Agreement pursuant to Section 8.1, all obligations of the Parties hereunder shall terminate without any liability of any Party to the other Parties except for the provisions of Sections 3.14 and 4.5 relating to brokerage, Section 9.5 relating to press releases and announcements, Section 9.7 relating to solicitation of employees and Section 11.7 relating to expenses shall survive such termination, as shall the provisions of the Confidentiality Agreement in accordance with its terms. Notwithstanding the foregoing, termination of this Agreement shall not relieve any Party of



liability for any breach by such Party, prior to the termination of this Agreement, of any covenant or agreement contained in this Agreement or impair the right of any Party to obtain such remedies as may be available to it in law or equity with respect to such a breach of any covenant or agreement contained in this Agreement by another Party.

## ARTICLE IX ADDITIONAL COVENANTS

### 9.1 TAXES.

(a) Except to extent included within the Assumed Liabilities, the Owner and the Seller shall be jointly and severally liable for and pay, and pursuant to Article VII shall indemnify each Buyer Indemnitee from and against, all Taxes (including, without limitation, any amounts owed by a Buyer Indemnitee relating to Taxes pursuant to a contract or otherwise) applicable to the Business, and the Seller's right, title and interest in Business Assets, in each case attributable to Taxable years or periods ending on or prior to the Closing Date and, with respect to any Straddle Period, the portion of such Straddle Period ending on and including the Closing Date. In addition to the Assumed Liabilities, the Buyer shall be solely liable for and pay, and pursuant to Article VII shall indemnify each Seller Indemnitee from and against, all Taxes applicable to the Business, the Buyer's right, title and interest in the Business Assets and the Assumed Liabilities that are attributable to taxable years or periods beginning after the Closing Date and, with respect to any Straddle Period, the portion of such Straddle Period beginning after the Closing Date. For purposes of this Agreement, any Straddle Period shall be treated on a "closing of the books" basis as two partial periods, one ending at the close of business on the Closing Date and the other beginning on the day after the Closing Date, except that Taxes (such as property Taxes) imposed on a periodic basis shall be allocated on a daily basis.

(b) Notwithstanding paragraph (a), any sales Tax, use Tax, real property transfer or gains Tax, asset transfer Tax, documentary stamp Tax or similar Tax attributable to the sale or transfer of the Business, the Acquired Assets, the Seller's right, title and interest in the Business Assets not owned by the Seller or the Assumed Liabilities shall be paid by the Owner and the Seller. The Buyer agrees to timely sign and deliver such certificates or forms as may be necessary or appropriate to establish an exemption from (or otherwise reduce), or file Tax Returns with respect to, such Taxes.

(c) The Owner and the Seller or the Buyer, as the case may be, shall provide reimbursement for any Tax paid by one party all or a portion of which is the responsibility of the other party in accordance with the terms of this Section 9.1. Not later than thirty (30) days prior to the payment of any such Tax, the party paying such Tax shall give notice to the other party of the Tax payable and the portion which is the liability of each party, although failure to do so will not relieve the other party from its liability hereunder.

(d) After the Closing Date, the Buyer, the Owner and the Seller shall reasonably (i) cooperate in preparing for any audits of, or disputes with Governmental Authorities regarding, any Tax Returns of the Business or the Business Assets required to be filed by any of the Parties, and (ii) make available to the other and to any Governmental Authority as reasonably requested

all information, records, and documents in their possession or control relating to Taxes of the Business or the Business Assets.

9.2 UCC MATTERS. From and after the Closing Date, the Owner and the Seller shall promptly refer all inquiries with respect to ownership or operation of the Business Assets or the Business to the Buyer. In addition, the Owner and the Seller shall execute such documents and financing statements as the Buyer may request from time to time to evidence transfer of the Seller's right, title and interest in the Business Assets to the Buyer, including, without limitation, any necessary assignment of financing statements.

9.30 DISCHARGE OF BUSINESS OBLIGATIONS. Except with respect to the Assumed Liabilities, from and after the Closing, each of the Owner and the Seller shall pay and discharge, in accordance with past practice, all obligations and liabilities incurred prior to the Closing in respect of the Business, its operations or the assets and properties used therein, including any liabilities or obligations to Employees, any Governmental Authority and clients and customers of the Business.

9.4 CHANGE OF THE SELLER'S NAME. As of the Closing Date, the Seller shall, and the Owner shall cause the Seller to, change its limited liability company name and its fictitious name to such name not containing the word "PanVera," or any name similar to or derivative of such name, as the Buyer shall reasonably approve. The Seller and the Owner, at the request of the Buyer, will take such action as may be necessary or appropriate to permit the Buyer to qualify as a foreign corporation to do business in the Seller's name or conduct business using the Seller's name in the State of Wisconsin and other states and jurisdictions.

9.5 PUBLIC ANNOUNCEMENT. Prior to Closing, no Party hereto shall make or issue, or cause to be made or issued, any public announcement or written statement concerning this Agreement or the transactions contemplated hereby (except to the respective representatives, directors, managers and officers of the Buyer, the Owner, the Seller and their Affiliates) without the prior written consent of the other Parties (which will not be unreasonably withheld or delayed); provided, however, that any Party may make any such announcement or statement it believes in good faith is required by applicable law or any listing or trading agreement concerning its publicly-traded securities without such consent, so long as the disclosing Party provides the other Parties with a reasonable opportunity to review and comment on such disclosure in advance of its being made, if doing so will not cause the disclosing Party to fail to meet the legal or other requirements mandating such disclosure.

#### 9.6 POST CLOSING OBLIGATION TO EMPLOYEES.

(a) SCHEDULE 9.6(a) contains a true and correct list of the name, job title, current base salary or hourly wage, date of hire, current vacation entitlement and assigned location of all Employees actively employed (as of the date of this Agreement), including any such individual on short-term disability or approved leave of absence who was so employed immediately before such disability or absence. At the Closing, the Owner and the Seller shall provide to the Buyer an updated SCHEDULE 9.6(a) which shall disclose all the information required under the preceding sentence as of the day prior to Closing. All individuals included on the original SCHEDULE 9.6(a), plus all individuals included on the updated SCHEDULE 9.6(a) whose hiring was approved by

Buyer, are herein referred to as the "SELLER EMPLOYEES." With respect to any Seller Employee who is not actively employed due to short-term disability or approved leave of absence, the updated SCHEDULE 9.6(a) shall indicate the reason for such absence and the date such individual is reasonably expected to return to active employment. If a Seller Employee who is not actively employed at the time of Closing due to short-term disability or approved leave of absence is, in the reasonable opinion of the Buyer, unfit to return to active employment with the Buyer within 30 days of the expected return date indicated on the updated SCHEDULE 9.6(a) or otherwise does not commence active employment with the Buyer within such 30 day period, such individual shall be considered a "FORMER SELLER EMPLOYEE" for all purposes under this Agreement.

(b) Effective as of 12:01 a.m. on the Closing Date, the Owner and the Seller shall cause the employment of all Seller Employees (other than those individuals who are not actively employed due to short-term disability or approved leave of absence, whose employment shall be terminated upon their return to active employment) to be terminated. Effective as of 12:01 a.m. on the Closing Date, the Buyer shall offer employment to all Seller Employees terminated in accordance with the preceding sentence (except that with respect to those individuals on short-term disability or an approved leave of absence, subject to their commencement of active employment with the Buyer within thirty (30) days of their expected return date as indicated on updated SCHEDULE 9.6(a), the Buyer shall offer employment to such individuals upon their return from short-term disability or approved leave of absence) on terms and conditions determined by the Buyer in its sole discretion. All Seller Employees to whom the Buyer offers employment and who accept such employment are herein referred to as the "TRANSFERRED EMPLOYEES." Nothing in this Section 9.6 shall limit the Buyer's authority to terminate the employment of any Transferred Employee at any time and for whatever reason. Beginning on the first Business Day following the execution of this Agreement, the Seller shall provide or make available to the Buyer, to the extent permitted by applicable law, such information regarding the Transferred Employees as is contained in the Seller's personnel records, including without limitation information regarding accrued or incurred but unpaid liabilities for wages, vacations, deferred compensation, medical/dental/vision, workers' compensation, disability and other welfare benefit claims.

(c) The Owner and the Seller shall be responsible for the payment of any Seller Employee benefits that become due to any Transferred Employees as a result of their termination by the Seller in accordance with Section 9.6(b).

(d) The Owner and the Seller shall be responsible for all legally mandated health care continuation coverage for Seller Employees and Former Seller Employees and their covered dependents who had or have a loss of coverage due to a "qualifying event" (within the meaning of Section 603 of ERISA) which occurred or occurs on or prior to the Closing Date including without limitation, any loss of coverage that results directly or indirectly from the transaction contemplated by this Agreement.

(e) The Seller and the Owner shall retain liability for payment of any long-term or short-term disability benefits to any Seller Employee or Former Seller Employee that relate to a disability which was first disclosed prior to the Closing Date.

(f) The Seller, the Owner and the Buyer hereby acknowledge and agree that in conformity with the Standard Procedure of IRS Revenue Procedure 96-60, 1996-2 C.B. 399,

(i) the Owner and the Seller will be responsible for and perform all Tax withholding, payment and reporting duties with respect to any wages and other compensation paid by the Owner or the Seller to any Seller Employee in connection with employment on or prior to the Closing Date; and (ii) the Buyer will be responsible for and perform all Tax withholding, payment, and reporting duties with respect to any wages and other compensation paid by the Buyer to any Transferred Employee in connection with employment after the Closing Date.

(g) The Seller and the Buyer hereby acknowledge and agree that (i) in accordance with Section 2101(b)(i) of the WARN Act, the Seller will be responsible for all required notices prior to the Closing Date, and the Buyer will be responsible for all required notices on or after the Closing Date, and

(ii) all of the Seller Employees as of the Closing Date (other than those individuals who are not actively employed on the Closing Date due to short-term disability or approved leave of absence) will be deemed to have become employees of the Buyer immediately on the Closing Date for purposes of the WARN Act.

**9.7 NON-SOLICITATION OF EMPLOYEES.** Other than with respect to the offer of employment made by Buyer to the Seller Employees contemplated in Section 9.6 hereof, the Parties covenant and agree, for themselves and their Affiliates, that they will not at any time on or before the Closing, or at any time during the two (2) year period following the Closing or, if this Agreement is terminated prior to the Closing, then at any time during the one-year period following the effective date of such termination, solicit to employ (other than by general advertisements) any person who is, at the time of such solicitation or immediately prior to such employment, an employee of the other Parties or any of their respective Affiliates without the written consent of the Party that employs such employee.

**9.8 DELIVERY OF CERTAIN BUSINESS RECORDS.** Within fifteen (15) days following the Closing, the Seller shall deliver to the Buyer copies of all invoices to customers and other customer records, customer and supplier lists, credit files, correspondence, marketing studies, sales presentations, consultant reports, research and development studies, product development studies or reports, quality control test results and other quality control records and reports, patent files, regulatory files, quality files and all other records, files, documents and information in the Seller's possession or control however maintained or stored (including computer diskettes and other electronic media), used or developed primarily in connection with the use of the Business Assets or the conduct of the Business. The Seller shall also deliver to the Buyer copies of all brochures and other promotional and printed materials, trade show materials (including displays), videos, advertising and/or marketing materials in the Seller's possession or control which were used or developed primarily in connection with the use of the Business Assets or the conduct of the Business.

**9.9 CONFIDENTIALITY AND NONUSE OBLIGATIONS.** The Owner and the Seller acknowledge and agree that the Vertex Parties shall continue to be bound by their obligations of confidentiality and nonuse under the Assigned Contracts (in the form they exist on the Closing Date and without regard to any amendment or modification after the Closing Date unless otherwise agreed to in writing by the Owner or the Seller) to the same extent as if they remained a party thereto.

**9.10 LIMITATIONS ON GRANTED OR RETAINED RIGHTS.** If and to the extent that the Seller, Vertex San Diego, or any predecessor entity to the Business, has granted, licensed, permitted or

conveyed to any Affiliate, pursuant to any written or oral contract, agreement, license or other arrangement, any license or other right in, to or under the intellectual property rights that are included in the Acquired Assets (or any tangible embodiments thereof) that are broader than the rights that are granted to or retained by Vertex San Diego under the Amended and Restated Technology Agreements, then such license or other right granted, licensed, permitted or conveyed to such Affiliate shall be limited hereafter to the extent of the rights that are granted to or retained by Vertex San Diego under the Amended and Restated Technology Agreements.

## **ARTICLE X POST-CLOSING AGREEMENTS**

10.1 **COLLECTION OF RECEIVABLES.** The Owner and the Seller shall, by letter prepared by the Buyer and reasonably acceptable to the Seller (the "LETTER"), authorize, instruct and direct that the account parties of all accounts, notes and receivables (including insurance proceeds) constituting Acquired Assets (such parties, the "ACCOUNT PARTIES") shall make and deliver all payments relating thereto on or after the Closing to such location, bank and account (the "BUYER RECEIVABLES ACCOUNT") as the Buyer shall specify. The Letter shall cover all such matters as the Buyer and the Seller shall reasonably determine. If, notwithstanding such Letter, any of the Account Parties remit payments on or after the Closing directly or indirectly to the Seller instead of to the Buyer Receivables Account, the Owner and the Seller shall promptly deliver all such payments (including but not limited to negotiable instruments which shall be duly endorsed by the Seller to the order of the Buyer) to the Buyer. The Seller hereby irrevocably designates, makes, constitutes and appoints the Buyer (and all persons designated by the Buyer) as its true and lawful attorney-in-fact to do any of the following in the sole discretion of the Buyer: to receive, give receipts for, take, endorse, assign, deliver, deposit, demand, collect, sue on, compound, and give acquittance for any and all information, documents, payments forms (including negotiable and non-negotiable instruments) and proceeds received by the Buyer via the Buyer Receivables Account or from the Owner or the Seller that relate to the accounts, notes and receivables (including insurance proceeds) of the Account Parties constituting Acquired Assets.

10.2 **USE OF AURORA TRADE NAME.** The Buyer agrees that it will not, and will not permit any of its Affiliates to, use any trade name or trade mark containing the Aurora name, whether in connection with the use of the Business Assets and the conduct of the Business or otherwise; provided, that for a period of twenty-four (24) months following the Closing the Buyer shall be permitted to state in its marketing materials with respect to products produced through the use of the Business Assets that certain of such Business Assets were formerly owned or operated by Aurora.

10.3 **ACCESS TO BUSINESS RECORDS.** The Buyer agrees that the Seller, the Owner and their representatives (provided such representatives are subject to a duty of confidentiality with the Seller or the Owner with respect to such matters) shall have reasonable access during normal business hours to all of the financial books and records with respect to the Business and the Business Assets delivered to the Buyer at or following the Closing, and to make copies thereof (which copies shall not be disclosed by the Seller or the Owner to any third party other than (a) in confidence to their attorneys, accountants, tax preparers, financial advisors, and lenders, (b) as necessary to fulfill standard or legally required corporate or regulatory reporting or disclosure

requirements, or (c) as may be necessary to enforce the terms of, or otherwise comply with, this Agreement, or as may be otherwise required by law). The Seller and Owner agree that the Buyer and its representatives shall have reasonable access during normal business hours to the financial books and records of Seller and Owner as necessary to fulfill standard or legally required corporate or regulatory reporting or disclosure requirements arising from the transactions contemplated by this Agreement, and to make copies thereof (which copies shall not be disclosed by the Buyer to any third party other than (a) in confidence to their attorneys, accountants, tax preparers, financial advisors, and lenders,

(b) as necessary to fulfill standard or legally required corporate or regulatory reporting or disclosure requirements, or (c) as may be necessary to enforce the terms of, or otherwise comply with, this Agreement, or as may be otherwise required by law)

## **ARTICLE XI MISCELLANEOUS**

11.1 **NO THIRD-PARTY BENEFICIARIES.** This Agreement shall not confer any rights or remedies upon any person other than the Parties and their respective successors and permitted assigns and, to the extent specified herein, their respective Affiliates.

11.2 **ENTIRE AGREEMENT.** This Agreement (including the documents referred to herein), the Ancillary Agreements and the Confidentiality Agreement constitute the entire agreement among the Owner, the Seller and the Buyer with respect to the subject matter hereof. This Agreement and the Ancillary Agreements supersede any prior agreements or understandings among the Owner, the Seller or the Buyer and any representations or statements made by or on behalf of the Owner, the Seller or the Buyer, whether written or oral, with respect to the subject matter hereof, other than the Confidentiality Agreement which shall terminate effective at the Closing.

11.3 **SUCCESSION AND ASSIGNMENT.** No Party may assign or delegate either this Agreement or any of its rights, interests, or obligations hereunder without the prior written approval of the other Parties. Notwithstanding the foregoing, this Agreement, and all rights hereunder may be assigned in whole or in part, without such consent, by the Buyer to any other wholly owned subsidiary of the Buyer, provided that such assignee agrees in writing to be bound by the provisions of this Section 11.3 and such assignment shall not release the Buyer from its obligations hereunder. This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

11.4 **NOTICES.** All notices, requests, demands, claims and other communications hereunder shall be in writing. Any notice, request, demand, claim or other communication hereunder shall be sent to the intended recipient as set forth below:

|  |  |
|--|--|
| <p>If to the Buyer or the Parent:</p> <p>Invitrogen Corporation<br/> 1600 Faraday Avenue<br/> Carlsbad, CA 92008<br/> Telecopy: 760-603-7229<br/> Attention: General Counsel</p> <p>With a Copy to:</p> <p>Gray Cary Ware &amp; Freidenrich LLP<br/> Counsel<br/> 4365 Executive Drive, Suite 1100<br/> San Diego, CA 92121-2133<br/> Telecopy: 858-677-1477<br/> Attention: Jeffrey T. Baglio</p> | <p>If to the Seller or the Owner:</p> <p>Vertex Pharmaceuticals Incorporated<br/> 130 Waverly Street<br/> Cambridge, MA 02139<br/> Telecopy: 617-444-6580<br/> Attention: Chairman and CEO</p> <p>With a Copy to:</p> <p>Senior Vice President and General<br/> <br/> Vertex Pharmaceuticals Incorporated<br/> 130 Waverly Street<br/> Cambridge, MA 02139<br/> Telecopy: 617-444-6483</p> |
|--|--|

Any Party may give any notice, request, demand, claim, or other communication hereunder using any reasonable means (including personal delivery, expedited courier, messenger service, telecopy, telex, ordinary mail, or electronic mail), but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the Party for whom it is intended. Any Party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other Parties notice in the manner herein set forth.

11.5 AMENDMENTS AND WAIVERS. The Parties may mutually amend or waive any provision of this Agreement at any time. Except as otherwise provided in Section 7.7, no amendment or waiver of any provision of this Agreement shall be valid unless the same shall be in writing and signed by the Parties. No waiver by any Party of any default, misrepresentation, or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence.

11.6 SEVERABILITY. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction.

11.7 EXPENSES. Except as otherwise specifically provided to the contrary in this Agreement, each of the Parties shall bear its own costs and expenses (including legal fees and expenses) incurred in connection with this Agreement and the transactions contemplated hereby.

11.8 SPECIFIC PERFORMANCE. Each Party acknowledges and agrees that the other Parties will be damaged irreparably in the event any of the provisions of this Agreement are not performed in accordance with their specific terms or otherwise are breached. Accordingly, each Party agrees that the other Parties shall be entitled to seek an injunction or injunctions to prevent breaches of the provisions of this Agreement and to enforce specifically this Agreement and the

terms and provisions hereof in any action instituted in any state or federal court sitting in the State of California in accordance with Section 11.9.

11.9 GOVERNING LAW. This Agreement and any disputes hereunder shall be governed by and construed in accordance with the internal laws of the State of California without giving effect to any choice or conflict of law provision or rule (whether of the State of California or any other jurisdiction) that would cause the application of laws of any jurisdiction other than those of the State of California.

#### 11.10 CONSTRUCTION.

(a) The language used in this Agreement shall be deemed to be the language chosen by the Parties to express their mutual intent, and no rule of strict construction shall be applied against any Party.

(b) Any reference to any federal, state, local, or foreign statute or law shall be deemed also to refer to all rules and regulations promulgated thereunder, unless the context requires otherwise.

(c) The Section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

(d) Any reference herein to an Article, Section or clause shall be deemed to refer to an Article, Section or clause of this Agreement, unless the context clearly indicates otherwise.

(e) All references to "\$" or "Dollars" refer to currency of the United States of America.

11.11 WAIVER OF JURY TRIAL. To the extent permitted by applicable law, each Party hereby irrevocably waives all rights to trial by jury in any action, proceeding or counterclaim (whether based on contract, tort or otherwise) arising out of or relating to this Agreement or the transactions contemplated hereby or the actions of any Party in the negotiation, administration, performance and enforcement of this Agreement.

11.12 INCORPORATION OF EXHIBITS AND SCHEDULES. The Exhibits and Schedules identified in this Agreement are incorporated herein by reference and made a part hereof.

11.13 COUNTERPARTS AND FACSIMILE SIGNATURE. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile signature.



[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first above written.

**VERTEX PHARMACEUTICALS  
INCORPORATED**

*By: /s/ Joshua S. Boger*

-----  
*Name: Joshua S. Boger*  
*Title: Chairman and CEO*

**PANVERA LLC**

*By: /s/ Joshua S. Boger*

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*Name: Joshua S. Boger*  
*Title: President*

**INVITROGEN CORPORATION**

*By: /s/ John Thompson*

-----  
*Name: John Thompson*  
*Title: Vice President, Corporate  
Development*

**[SIGNATURE PAGE TO ASSET PURCHASE AGREEMENT]**

## NON COMPETITION AGREEMENT

This NON-COMPETITION AGREEMENT (this "Agreement") is entered into as of March 28, 2003 (the "Closing Date"), by and among Vertex Pharmaceuticals Incorporated, a Massachusetts corporation ("Vertex"), and Invitrogen Corporation, a Delaware corporation ("Invitrogen").

### INTRODUCTION

WHEREAS, pursuant to the Asset Purchase Agreement by and among Vertex, PanVera LLC, a Delaware limited liability company (the "Seller"), and Invitrogen dated as of February 4, 2003 (the "Asset Purchase Agreement"), the Seller has sold to Invitrogen the Business Assets (as such term is defined in the Asset Purchase Agreement), and Invitrogen has assumed from the Seller the Assumed Liabilities (as such term is defined in the Asset Purchase Agreement); and

WHEREAS, Vertex is the sole member of Vertex Pharmaceuticals (San Diego) LLC, a Delaware limited liability company ("Vertex SD") and Vertex SD is the sole member of Seller; and

WHEREAS, this Agreement is entered into pursuant to, and was a condition precedent to the closing of the transactions contemplated by, the Asset Purchase Agreement. Vertex acknowledges that Invitrogen would not consummate the purchase of the Acquired Assets and assumption of the Assumed Liabilities pursuant to the Asset Purchase Agreement without the benefit of the agreements set forth herein. Vertex further acknowledges that without the restrictions set forth herein, Invitrogen's business and the value of the Business Assets and the Assumed Liabilities will be materially adversely affected.

### TERMS

NOW, THEREFORE, in consideration of the covenants and agreements contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

**SECTION 1. DEFINITIONS.** Any term not otherwise specifically defined herein shall have the meaning ascribed to it in the Asset Purchase Agreement. For the purposes of this Agreement, the terms set forth in this Section 1 have the meanings as set forth below:

Section 1.1 "Affiliate" means any trust, business trust, joint venture, partnership, corporation, limited liability company, company, association or any other entity which owns, is owned by or is under common ownership with, a party. For the purposes of this definition, the term "owns" (including, with correlative meanings, the terms "owned by" and "under common ownership with") as used with respect to each party, will mean the possession (directly or indirectly) of more than fifty percent (50%) of the outstanding voting or equity interest in such corporation or comparable equity interest in any other type of entity, or the possession of the power to otherwise control the management and policies of such entity.

Section 1.2 "Assay" means a test used in the context of drug discovery research for determining the effect of a chemical compound on a biomolecular target.

Section 1.3 "Assay Development Collaboration Agreement" means a written agreement between Vertex SD and/or any of its Affiliates and a non-Affiliated third party, the sole purpose of which is to fund the development of an Assay or Assays by Vertex SD and/or any of its Affiliates and under which the non-Affiliated third party and Vertex SD and/or any of its Affiliates shall each have rights to use such Assay or Assays for ongoing research solely directed to the development of therapeutic products for use in humans and/or other vertebrates, such agreement to be identified to Invitrogen by Vertex SD promptly upon its being entered into; PROVIDED THAT:

- (i) the value of all consideration received by Vertex SD and/or its Affiliates (whether directly or indirectly) in connection with the development and delivery of the Assay or Assays under all such agreements will not exceed \$4,000,000 in any calendar year;
- (ii) the Assay or Assays to be developed under such agreement are to be utilized by Vertex SD and/or its Affiliates for ongoing research solely directed to the development of therapeutic products for use in humans and/or other vertebrates and are developed for the purpose of advancing such research;
- (iii) neither party to such agreement shall at any time assign, transfer or convey any technology or intellectual property rights (if any) developed under such agreement to any party which is not an Affiliate to a party to such agreement;
- (iv) each party to such agreement shall be prohibited from providing any Assays developed thereunder to any other non-Affiliated party;
- (v) at no time shall Vertex SD and/or its Affiliates perform in any manner under such an agreement until such time as (i) a Non-Affiliated third party to an earlier agreement has accepted all Assays under any earlier agreement, or (ii) Vertex SD has terminated any earlier agreement previously in existence;
- (vi) promptly following execution of any such agreement, Vertex SD will provide to Invitrogen a summary certified by an officer of Vertex SD of each such agreement with sufficient information for Invitrogen to determine whether the terms and conditions of such agreement comply with the provisions of this Agreement; provided, however, that if Invitrogen reasonably cannot determine that such agreement complies with the provisions of this Agreement, then Invitrogen shall provide written notification to Vertex SD and promptly following receipt of such notice, Vertex SD shall provide a redacted copy of such agreement to Invitrogen's outside counsel for the sole purpose of enabling such counsel to determine that such agreement complies with the provisions of this Agreement; and
- (vii) no such third party will acquire any rights to use any Assay provided under such agreement for any purpose other than its internal research purposes.

Section 1.4 "Assay Development Collaboration Partner" means a third party who is not an Affiliate of Vertex SD and who enters into an Assay Development Collaboration Agreement with Vertex SD or any of its Affiliates.

Section 1.5 "Bona Fide Collaboration Agreement" means a written collaboration agreement between Vertex SD and/or any of its Affiliates and a non-Affiliated third party who contributes to research and/or development (either by actively conducting research and/or funding research by Vertex SD and/or any of its Affiliates) pursuant to which (a) Vertex SD and/or its Affiliate, as applicable, and a non-Affiliated third party each has rights to commercially exploit in the field of human therapeutics a material share of the technology and the intellectual property rights therein that are developed in the collaboration; (b) Vertex SD and/or its Affiliate, as applicable, has, as of the date of execution of such Bona Fide Collaboration Agreement, a bona fide intent to commercially exploit such rights as it acquires; and (c) the activities anticipated by the agreement include research, pre-clinical development and/or clinical development, such pre-clinical development to include at least two animal studies, of therapeutic products for use in humans and/or other vertebrates.

Section 1.6 "Bona Fide Research Partner" means any non-Affiliated third party to a Bona Fide Collaboration Agreement with Vertex SD or any of its Affiliates.

Section 1.7 "Controlling Affiliate" shall mean an Affiliate of Vertex which was not previously formed or acquired by any Affiliate of Vertex (other than a Controlling Affiliate) that has the right to elect a majority of the Board of Directors of Vertex.

Section 1.8 "DNA Product" means any product, other than a Fast Dye Product, that is covered by an intellectual property right acquired by the Buyer pursuant to the Asset Purchase Agreement and is comprised of DNA or a peptide encoded by DNA. To the extent that a cell which contains DNA that is covered by an intellectual property right acquired by the Buyer pursuant to the Asset Purchase Agreement, such cell shall be a DNA Product.

Section 1.9 "Fast Dye Products" means a composition of matter that comprises a first reagent which is a dye capable of redistributing from one face of a cellular membrane to a second face of the membrane in response to changes in membrane potential with a time constant of less than 15 milliseconds as determined in accordance with the methodology described in Example IV of U.S. Patent No. 6,342,379, and a second reagent selected from the group consisting of fluorophores capable of undergoing energy transfer with the first reagent by either (i) donating excited state energy to the first reagent, or (ii) accepting excited state energy from the first reagent, said second reagent being located adjacent to either the first face of the membrane or the second face of the membrane; provided, however, that the first reagent described above shall not include DiSBAC4(3).

Section 1.10 "Fast Dye Restricted Period" means the period commencing on the Closing Date and ending on December 31, 2004.

Section 1.11 "GeneDriver Patent Rights" means all rights under the patents and patent applications listed on Exhibit A-1 hereto and all continuations, divisions, reissues, reexaminations, extensions, substitutions and continuations-in-part with respect thereto, and all United States and foreign patents issuing therefrom.

Section 1.12 "Genomescreen Patent Rights" means all rights under the patents and patent applications listed on Exhibit A-2 hereto and all continuations, divisions, reissues, reexaminations, extensions, substitutions and continuations-in-part with respect thereto, and all United States and foreign patents issuing therefrom.

Section 1.13 "Non-DNA Product" means any product, other than a Fast Dye Product or a DNA Product, which is covered by an intellectual property right acquired by the Buyer pursuant to the Asset Purchase Agreement.

Section 1.14 "Product" means assays, proteins, probes or reagents, including the products listed on Schedule 1.1(a) to the Asset Purchase Agreement, but excluding Fast Dye Products.

Section 1.15 "Research Field" means the investigation of biological and/or biochemical processes, and/or research and development of biological and/or biochemical products and/or drug discovery.

Section 1.16 "Research Services" means any service rendered to Vertex SD and/or any of its Affiliates by a non-Affiliated person, other than pursuant to a Bona Fide Collaboration Agreement or an Assay Development Collaboration Agreement, to the extent the provision of such services requires that such person obtain a license or sublicense of rights retained by Vertex SD pursuant to the Asset Purchase Agreement.

Section 1.17 "Restricted Period" means the period beginning on the Closing Date and ending on the fifth anniversary thereof, subject to any applicable extension pursuant to Section 2(i) hereof.

Section 1.18 "Service" means any service which employs, consumes or manufactures any Product.

Section 1.19 "Supply" means to make available for use at a location other than a Vertex Party's facility.

Section 1.20 "Vertex Parties" means any of Vertex's Affiliates.

## SECTION 2. COVENANTS NOT TO COMPETE.

(a) Except as expressly provided in the next sentence, during the Fast Dye Restricted Period, neither Vertex nor any Vertex Party shall (i) Supply, nor attempt or purport to Supply any Fast Dye Product, nor (ii) provide, nor attempt or purport to provide, any service employing a Fast Dye Product other than pursuant to a Bona Fide Collaboration Agreement, and in such case, only if the activities involving the Fast Dye Products are performed at a Vertex Party's facilities. Notwithstanding the foregoing, during the Fast Dye Restricted Period Vertex shall be entitled to Supply Fast Dye Products and provide any services employing Fast Dye Products to up to two (2) Bona Fide Research Partners (which are parties to Bona Fide Collaboration Agreements) per each calendar year period ending on December 31 during the Fast Dye Restricted Period.

(b) RESEARCH FIELD.

- (i) During the Restricted Period, except as otherwise expressly provided in this Section 2, neither Vertex nor any Vertex Party shall sell or otherwise transfer to a party other than a Vertex Party, nor attempt or purport to sell or otherwise transfer to a party other than a Vertex Party, any Product for use in the Research Field or provide any Service in the Research Field.
- (ii) During the Restricted Period, neither Vertex nor any Affiliate of Vertex shall sell or otherwise transfer, nor attempt or purport to sell or otherwise transfer, any Product for use in the Research Field or provide any Service in the Research Field that employs any technology claimed or covered in the Genomescreen Patent Rights or GeneDriver Patent Rights.
- (c) Other than the restrictions set forth in Section 2(a) which shall remain applicable, the provisions of this Section 2 shall not (i) restrict Vertex or its Affiliates from entering into or performing its obligations under any Bona Fide Collaboration Agreements and Assay Development Collaboration Agreements; (ii) limit the rights of Vertex and its Affiliates to Supply DNA Products to any unaffiliated third party who is a party to any Bona Fide Collaboration Agreements or an Assay Development Collaboration Agreement; (iii) limit the right of Vertex and its Affiliates to Supply DNA Products to any unaffiliated third party who is providing Research Services for the benefit of Vertex or its Affiliates; (iv) restrict Vertex or its Affiliates from making available to any third party any drug or drug candidate; or (v) limit the rights exercisable by Vertex and its Affiliates under the Amended and Restated Technology Agreements (as defined in the Asset Purchase Agreement).
- (d) If Vertex or any of its affiliates shall transfer, assign, sell or otherwise convey any third party (the "Transferee") any interest in any intellectual property right associated with the Business and licensed to or retained by Vertex or any of its Affiliates under the Asset Purchase Agreement or any of its Ancillary Agreements, Vertex or its applicable Affiliate shall require that such Transferee shall restrict its use of such intellectual property rights so as to comply with all of the obligations set forth in Sections 2(a) and 2(b) herein.
- (e) If a court of competent jurisdiction shall declare any provision or restriction contained in this Agreement unenforceable or void, the other provisions of this Agreement shall nonetheless remain in full force and effect, and Vertex and Invitrogen hereby authorize and empower such court to treat any such unenforceable provision as having been modified, but only to the minimum extent deemed necessary by the court to render it enforceable and for the court to enforce it fully to such extent.
- (f) Vertex expressly acknowledges that any material breach of this Section 2 by or on behalf of Vertex or any Vertex Party shall be presumed to result in irreparable harm to Invitrogen and that the remedy at law shall be presumed to be inadequate and that upon any such material breach, Invitrogen shall be presumed to be entitled (without the need for posting any bond or other security) to injunctive relief in any court of competent jurisdiction, in equity or otherwise, and to enforce the specific performance of Vertex or such Vertex Parties' obligations under these provisions, which presumptions shall be required to be rebutted by Vertex. The

rights conferred upon Invitrogen by the preceding sentence shall not be exclusive of, but shall be in addition to, any other rights or remedies which Invitrogen may have at law, in equity or otherwise.

(g) Vertex recognizes that Vertex and its Affiliates have become familiar with the Proprietary Assets of the Business that are being conveyed and assigned to Invitrogen pursuant to the Asset Purchase Agreement. Vertex further recognizes that the scope of the Business is independent of location (such that it is not practical to limit the restrictions contained in this

Section 2 to a specified county, city, state, country, continent or part thereof), and that, accordingly, the restrictions contained in this Section 2 are reasonable in all respects and necessary to protect the goodwill and Proprietary Assets of Invitrogen and that, without such protection, Invitrogen's customer and client relations and competitive advantage would be materially adversely affected. It is specifically recognized by Vertex that Invitrogen would not enter this Agreement and the Asset Purchase Agreement without the restrictions contained in this Section 2. Vertex acknowledges that the restrictions contained in this Section 2 do not impose an undue hardship on Vertex or any of the Vertex Parties and that Vertex and the Seller have received adequate consideration in respect thereof.

(h) Other than the restrictions set forth in Sections 2(a) and 2(b)(ii) which shall remain applicable, nothing in this Section 2 shall limit the right of Vertex and its Affiliates to acquire any business through a merger, consolidation, purchase of stock or assets, or otherwise, and to operate any such acquired business thereafter if the annual consolidated gross revenue of such acquired business attributable to activities otherwise prohibited by this Agreement does not exceed 20% of the annual consolidated gross revenues of such acquired business as a whole, as demonstrated by reference to the most recently available financial statements of such acquired business as of the time of the consummation of the acquisition thereof by the applicable Vertex Party; PROVIDED that Vertex or its Affiliate that acquired such business shall in good faith use its commercially reasonable efforts to divest to a non-Affiliate, through sale or other similar transaction, the portion of the acquired business the operation of which is otherwise prohibited by this Agreement as soon as possible, but in no event later than two (2) years following the acquisition of such business (even if such two (2) year period concludes after the expiration of the Restricted Period).

(i) Other than the restrictions set forth in Sections 2(a) and 2(b)(ii) which shall remain applicable, nothing in this Section 2 shall apply to a Controlling Affiliate of Vertex or to any Affiliates of the Controlling Affiliate (other than the Owner and the Owner's direct and indirect subsidiaries at the time such Controlling Affiliate becomes an Affiliate).

SECTION 3. NOTICES. All notices and other communications provided for under this Agreement will be in English in writing, shall expressly reference the section(s) of this Agreement to which they pertain, and shall be delivered to the other party, effective upon receipt, and in each case will be addressed to the parties at the following addresses or to such other addresses as may be designated by the parties from time to time during the term of this Agreement:

If to Invitrogen:

Invitrogen Corporation  
Incorporated

If to Vertex:

Vertex Pharmaceuticals



1600 Faraday Avenue  
Carlsbad, CA 92008  
Attn: Contracts Department  
Fax: 760-603-7229

130 Waverly Street  
Cambridge, MA 02139  
Attn: CEO  
Fax: 617-444-6580

With a Copy to:  
Invitrogen  
Incorporated  
1600 Faraday Avenue  
Carlsbad, CA 92008  
Attn: General Counsel  
Fax: 760-603-7229

With a Copy to:  
Vertex Pharmaceuticals  
130 Waverly Street  
Cambridge, MA 02139  
Attn: General Counsel  
Attn: 617-444-6483

#### SECTION 4. MISCELLANEOUS.

- (a) The invalidity or unenforceability of any provision of this Agreement will not affect the validity or enforceability of any other provision of this Agreement. This Agreement will, subject to the terms hereof, become binding upon execution and delivery by Invitrogen and Vertex.
- (b) This Agreement together contains the entire agreement and understanding between the parties and supersedes all prior agreements, understandings and representations relating to the subject matter of this Agreement.
- (c) This Agreement will be governed by the laws of The Commonwealth of Massachusetts, without regard to conflicts of laws principles.
- (d) The waiver by any party of a breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any other or subsequent breach by the breaching party of such or any other provision.
- (e) The section headings contained in this Agreement are for convenience only and shall not in any way affect the interpretation or enforceability of any provision of this Agreement.
- (f) No amendments or variation of the terms and conditions of this Agreement shall be valid unless the same is in writing and signed by all parties to this Agreement.
- (g) This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original and all of which taken together shall constitute one and the same instrument.
- (h) Nothing herein expressed or implied is intended to confer or shall be construed as confirming upon or giving to any person other than the parties hereto any rights or benefits under or by reason of this Agreement.
- (i) Neither this Agreement nor any right or obligation hereunder may be

assigned or delegated, in whole or part, by Vertex without the prior express written consent of Invitrogen; provided, however, that Vertex may, without the written consent of Invitrogen, assign this Agreement and its rights and delegate its obligations hereunder in connection with the transfer or sale of all or substantially all of its business, or in the event of its merger, consolidation, change in control or similar transaction. Neither this Agreement nor any right or obligation hereunder may be assigned or delegated, in whole or part, by Invitrogen without the prior express written consent of Vertex; provided, however, that Invitrogen may, without the written consent of Vertex, assign this Agreement and its rights and delegate its obligations hereunder (i) to a wholly owned subsidiary; (ii) in connection with the transfer or sale of all or substantially all of the Acquired Assets, or (iii) in the event of its merger, consolidation, change in control or similar transaction. Any permitted assignee shall assume all obligations of its assignor under this Agreement. Any purported assignment in violation of this Section 4(i) shall be void.

-8-

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

**VERTEX PHARMACEUTICALS INCORPORATED**

*By: /s/ Ian F. Smith*

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*Name: Ian F. Smith*  
*Title: Treasurer*

**INVITROGEN CORPORATION**

*By: /s/ John D. Thompson*

-----  
*Name: John D. Thompson*  
*Title: Vice President, Corporate*  
*Development*

**Exhibit 10.32**

**Form of Change of Control Agreement**

March 7, 2003

RE: Vertex Pharmaceuticals Incorporated Change of Control Agreement

Dear \_\_\_\_\_:

Your expertise, reputation and position make you a key member of the senior management team of Vertex Pharmaceuticals Incorporated (the "Company"). As a result, the Company would like to provide you with the following "change of control" benefit to help ensure that in the event the Company becomes involved in a "change of control" transaction, there will be no distraction from your attention to the needs of the Company.

I. DEFINITIONS. For the purposes of this Agreement, capitalized terms shall have the following meaning:

1. "BASE SALARY" shall mean your annual base salary in effect immediately prior to a Change of Control (as such term is defined in SECTION I.4 below).

2. "CAUSE" shall mean:

(a) your conviction of a felony crime of moral turpitude;

(b) your willful refusal or failure to follow a lawful directive or instruction of the Company's Board of Directors or the individual(s) to whom you report, PROVIDED that you receive prior written notice of the directive(s) or instruction(s) that you failed to follow, and PROVIDED FURTHER that the Company, in good faith, gives you thirty (30) days to correct any problems and FURTHER PROVIDED if you correct the problem(s) you may not be terminated for Cause in that instance;

(c) in carrying out your duties you commit (i) willful gross negligence, or (ii) willful gross misconduct, resulting in either case in material harm to the Company, UNLESS such act, or failure to act, was believed by you, in good faith, to be in the best interests of the Company; or

(d) your violation of the Company's policies made known to you regarding confidentiality, securities trading or inside information.

3. "CHANGE OF CONTROL" shall mean that:

(a) any "person" or "group" as such terms are used in Sections 13(d) and 14(d)(2) of the Securities Exchange Act of 1934 (the "Act"), becomes a beneficial owner, as such term is used in Rule 13d-3 promulgated under the Act, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the outstanding securities of the Company, as the case may be, having the right to vote in the election of directors; or

all or substantially all the business or assets of the Company are sold or disposed of, or the Company or a subsidiary of the Company combines with another company pursuant to a merger, consolidation, or other similar transaction, OTHER THAN (i) a transaction solely for the purpose of reincorporating the Company or one of its subsidiaries in a different jurisdiction or recapitalizing or reclassifying the Company's stock; or (ii) a merger or consolidation in which the shareholders of the Company immediately prior to such merger or consolidation continue to own at least a majority of the outstanding voting securities of the Company or the surviving entity immediately after the merger or consolidation.

4. "DISABILITY" shall mean a disability as determined under the Company's long-term disability plan or program in effect at the time the disability first occurs, or if no such plan or program exists at the time of disability, then a "disability" as defined under Internal Revenue Code Section 22(e)(3).

5. "GOOD REASON" shall mean that within ninety (90) days prior to a Change of Control, or within twelve (12) months after a Change of Control, one of the following events occurs without your consent:

(a) You are assigned to material duties or responsibilities that are inconsistent, in any significant respect, with the scope of duties and responsibilities associated with your position and office immediately prior to the Change of Control (PROVIDED that such reassignment of duties or responsibilities is not for Cause, due to your Disability or at your request);

(b) You suffer a material reduction in the authorities, duties, or job title and responsibilities associated with your position and office immediately prior to the Change of Control, on the basis of which you make a good faith determination that you can no longer carry out your position or office in the manner contemplated before the Change of Control (PROVIDED that such reduction in the authorities, duties, or job title and responsibilities is not for Cause, due to your Disability or at your request);

(c) your annual base salary is decreased below the Base Salary;

(d) the principal offices of the Company, or the location of the office to which you are assigned at the time this Agreement is entered into, is relocated to a place thirty-five (35) or more miles away, without your agreement; or

(e) following a Change of Control, the Company's successor fails to assume the Company's rights and obligations under this Agreement.

6. "TERMINATION DATE" shall mean the last day of your employment with the Company.

II. SEVERANCE BENEFITS UPON CHANGE OF CONTROL. In the event your employment is terminated (EXCEPT for termination for Cause or due to a Disability) within ninety (90) days prior to a Change of Control or within twelve (12) months after a Change of Control; or if you, of your own initiative, terminate your employment within ninety (90) days prior to a Change of Control or within twelve (12) months after a Change of Control for Good Reason, in exchange for a general release of all claims, you shall receive the following benefits:

1. SEVERANCE PAYMENT - The Company shall make a lump sum payment to you equal to:

(a) Your annual Base Salary (PROVIDED, HOWEVER, that in the event you terminate your employment for Good Reason based on a reduction in Base Salary, then the base salary to be used in calculating the Severance Payment shall be the base salary in effect immediately prior to such reduction in Base Salary); and

(b) any unpaid portion of a bonus award actually awarded but not yet paid to you under any bonus program applicable to the Company's senior executives and in effect prior to the Change of Control, pro rated in the event the Termination Date is prior to the end of the bonus plan year.

The Severance Payment shall be made in cash within ten (10) days of the execution of a general release and expiration without revocation of any applicable revocation periods under the general release.

2. ACCELERATED VESTING - Stock options for the purchase of the Company's securities held by you as of the Termination Date and not then exercisable shall be deemed to have been held by you for an additional 18-months, for purposes of calculating the number of options which are exercisable on the Termination Date. The options to which this accelerated vesting applies shall remain exercisable until the earlier of (a) the end of the 90-day period immediately following the Termination Date, or (b) the date the stock option(s) would otherwise expire.

3. CONTINUED INSURANCE COVERAGE - If COBRA coverage is elected by you, the Company shall pay the cost of COBRA continuation premiums on your behalf to continue standard medical, dental and life insurance coverage for you (or the cash equivalent of same in the event you are ineligible for continued coverage) for a period of 18-months from the Termination Date.

You shall not be required to mitigate the amount of the Severance Payment or any other benefit provide under this Agreement by seeking other employment or otherwise, nor shall the amount of any payment or benefit provided for in this Agreement be reduced by any compensation earned by you as the result of other employment, by retirement benefits, or by offset against any amount claimed to be owed by you to the Company or otherwise.

### III. MISCELLANEOUS.

1. EMPLOYEE'S OBLIGATIONS. Upon the termination of employment, you shall promptly deliver to the Company all property of the Company and all material documents, statistics, account records, programs and other similar tangible items which may be in your possession or under your control and which relate in a material way to the business or affairs of the Company or its subsidiaries, and no copies of any such documents or any part thereof shall be retained by you.

2. ENTIRE AGREEMENT. This Agreement and the "EMPLOYEE NON-DISCLOSURE, NON-COMPETITION & INVENTIONS AGREEMENT" previously executed by you covers the entire understanding of the parties as to the subject matter hereof, superseding all prior understandings and agreements related hereto. No modification or amendment of the terms and conditions of this Agreement shall be effective unless in writing and signed by the parties or their respective duly authorized agents.

3. GOVERNING LAW. This Agreement shall be governed by the laws of the Commonwealth of Massachusetts, as applied to contracts entered into and performed entirely in Massachusetts by Massachusetts residents.

4. SUCCESSORS AND ASSIGNS. This Agreement may be assigned by the Company upon a sale, transfer or reorganization of the Company. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their successors, permitted assigns, legal representatives and heirs.

Kindly indicate your acceptance of the forgoing by signing and dating this Agreement as noted below, and returning one fully executed original to my attention.

**Vertex Pharmaceuticals Incorporated**

By:

March 7, 2003

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**ACCEPTED AND AGREED:**

**Signature**

**Date**



**Subsidiaries of Vertex Pharmaceuticals Incorporated**

Vertex Pharmaceuticals (San Diego) LLC, a Delaware limited liability company

\*  
Aurora Instruments Holding LLC, a Delaware limited liability company

\*\*\*  
Aurora Instruments LLC, a Delaware limited liability company

Vertex Holdings, Inc., a Delaware corporation

\*\*  
Vertex Pharmaceuticals (Europe) Ltd., a U.K. limited liability company

\*\*  
Vertex Securities Trust, a Massachusetts Business Trust

\*  
a subsidiary of Vertex Pharmaceuticals (San Diego) LLC

\*\*  
indirect subsidiaries of Vertex Pharmaceuticals Incorporated

\*\*\*  
a subsidiary of Aurora Instruments Holding LLC

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[Exhibit 21](#)

[Subsidiaries of Vertex Pharmaceuticals Incorporated](#)

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**Exhibit23.1**

### **Consent of Independent Accountants**

We hereby consent to the incorporation by reference in the Registration Statements on Forms S-8 (File Nos.33-48030, 33-48348, 33-65472, 33-93224, 333-12325, 333-27011, 333-56179, 333-79549, 333-65664, and 333-65666) and on FormsS-3 (File Nos. 333-37794 and 333-49844) of Vertex Pharmaceuticals Incorporated of our report dated March31, 2003, relating to the consolidated financial statements, which appears in this Annual Report on Form10-K.

PricewaterhouseCoopers LLP

Boston, Massachusetts

March31, 2003

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[Exhibit 23.1](#)

[Consent of Independent Accountants](#)

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**Exhibit23.2**

**CONSENT OF ERNST& YOUNG LLP, INDEPENDENT AUDITORS**

We consent to the incorporation by reference in the Registration Statements on FormS-8 (Nos. 33-48030, 33-48348, 33-65742, 33-93224, 333-12325, 333-27011, 333-56179, 333-79549, 333-65664, 333-65666) and FormS-3 (Nos. 333-37794, 333-49844) of Vertex Pharmaceuticals Incorporated of our report dated April27, 2001, with respect to the consolidated financial statements of Aurora Biosciences Corporation (not presented), included in this Annual Report (Form10-K) of Vertex Pharmaceuticals Incorporated for the year ended December31, 2002.

/s/ ERNST& YOUNG LLP

San Diego, California  
March 31, 2003

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[Exhibit 23.2](#)

[CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS](#)

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**Exhibit23.3**

### **NOTICE REGARDING CONSENT OF ARTHUR ANDERSEN LLP**

Vertex Pharmaceuticals Incorporated ("Vertex") was unable after reasonable efforts to obtain the written consent required by Section 7 of the Securities Act of 1933, as amended (the "Securities Act") of Arthur Andersen LLP ("Andersen"), PanVera Corporation's former independent public accountants, to incorporate by reference the report of Andersen, dated October 20, 2000, on the financial statements of PanVera Corporation for the years ended September 30, 2000 and 1999. Such report appears in the Annual Report on Form 10-K filed by Vertex with the Securities and Exchange Commission on March 31, 2003. Rule 437a of the Securities Act permits Vertex to dispense with the requirement to file the written consent of Andersen. Accordingly, Vertex's stockholders may be unable to assert a claim against Andersen under Section 11(a) of the Securities Act.

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**Exhibit 99.1**

**Certification**  
**Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Joshua S. Boger, certify that:

1. I have reviewed this annual report on Form 10-K of Vertex Pharmaceuticals Incorporated;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
- 6.

The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 31, 2003

/s/ JOSHUA S. BOGER Joshua S. Boger  
Chairman and CEO

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**Exhibit 99.2**

**Certification**  
**Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Ian F. Smith, certify that:

1. I have reviewed this annual report on Form 10-K of Vertex Pharmaceuticals Incorporated;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls

or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 31, 2003

/s/ IAN F. SMITH Ian F. Smith  
Vice President and Chief Financial Officer



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[Exhibit 99.2](#)

[Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)

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**EXHIBIT 99.3**

**CERTIFICATION  
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002  
(SUBSECTIONS (a) and (b) OF SECTION 1350,  
CHAPTER 63 OF TITLE 18, UNITED STATES CODE)**

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Vertex Pharmaceuticals Incorporated, (the "Company"), does hereby certify, to such officer's knowledge, that:

The Annual Report on Form 10-K for the fiscal year ended December 31, 2002 (the "Form 10-K") of the Company fully complies with the requirements of Section 13(a) of 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 31, 2003            /s/ JOSHUA S. BOGER Joshua S.  
Boger  
Chief Executive Officer

Dated: March 31, 2003            /s/ IAN F. SMITH Ian F. Smith  
Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

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[EXHIBIT 99.3](#)

[CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 \(SUBSECTIONS \(a\) and \(b\) OF SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE\)](#)

# End of Filing