VERTEX PHARMACEUTICALS INC / MA

FORM 10-K
(Annual Report)

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended December 31, 2010

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 or other jurisdiction of incorporation or organization)	**04-3039129** (I.R.S. Employer Identification No.)
130 Waverly Street, Cambridge, Massachusetts (Address of principal executive offices)	**02139-4242** (Zip Code)

Registrant's telephone number, including area code **(617) 444-6100**

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $0.01 Par Value Per Share Rights to Purchase Series A Junior Participating Preferred Stock	The NASDAQ Global Select Market

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). 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 a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒	Accelerated filer ☐	Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange 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 June 30, 2010 (the last trading day of the registrant's second fiscal quarter of 2010) was $6.6 billion. As of February 9, 2011, the registrant had 204,412,712 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement for the 2011 Annual Meeting of Shareholders to be held on May 12, 2011 are incorporated by reference into Part III of this Annual Report on Form 10-K.

VERTEX PHARMACEUTICALS INCORPORATED

ANNUAL REPORT ON FORM 10-K

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"We," "us," "Vertex" and the "Company" as used in this Annual Report on Form 10-K, refer to Vertex Pharmaceuticals Incorporated, a Massachusetts corporation, and its subsidiaries.

PART I

ITEM 1. BUSINESS

OVERVIEW

We are in the business of discovering, developing and commercializing small molecule drugs for the treatment of serious diseases. In November 2010, we submitted a new drug application, or NDA, requesting approval to market telaprevir in the United States for the treatment of patients with chronic hepatitis C virus, or HCV, infection. In January 2011, we received priority review designation for our telaprevir NDA from the United States Food and Drug Administration, or FDA, and the target date for the FDA to complete its review of the telaprevir NDA is May 23, 2011. We expect to obtain approval for and initiate sales of telaprevir in the United States in 2011. We are pursuing a number of other clinical development programs, including a registration program for VX-770, the lead drug candidate in our cystic fibrosis, or CF, program. We plan to continue investing in our research and development programs and to develop and commercialize selected drug candidates that emerge from those programs, alone or with third-party collaborators.

OUR PIPELINE

Our pipeline is described in the following table. In addition to the drug candidates listed below, we are engaging in Phase 1 clinical trials and/or nonclinical activities with respect to a number of additional drug candidates, including compounds intended for the treatment of HCV infection, CF and influenza.

Drug Candidate	Clinical Indication	Mechanism/Target	Development Stage	Collaborator(s)
HCV Infection				
telaprevir (VX-950)	HCV Infection	HCV Protease Inhibitor	NDA accepted with priority review designation granted	Janssen Pharmaceutica, N.V.; Mitsubishi Tanabe Pharma Corporation
VX-222	HCV Infection	HCV Polymerase Inhibitor	Phase 2a	
Cystic Fibrosis				
VX-770	Cystic Fibrosis	CFTR Potentiator	Phase 3	Cystic Fibrosis Foundation Therapeutics Incorporated
VX-809	Cystic Fibrosis	CFTR Corrector	Phase 2a	Cystic Fibrosis Foundation Therapeutics Incorporated
Immune-mediated Inflammatory Diseases				
VX-509	Rheumatoid Arthritis	JAK3 Inhibitor	Phase 2a	
Epilepsy				
VX-765	Epilepsy	Caspase-1 Inhibitor	Phase 2a	

OUR STRATEGY

Our goal is to be a biopharmaceutical company with industry-leading capabilities in the research, development and commercialization of innovative drugs that provide substantial benefits to patients with serious diseases. The key elements of our strategy are:

Obtain FDA marketing approval for and effectively commercialize telaprevir in the United States. We are focused on obtaining approval for and successfully commercializing telaprevir as a treatment for patients infected with genotype 1 HCV. We have submitted our NDA for telaprevir to the FDA and plan to initiate sales of telaprevir in the United States in 2011. We are seeking approval to market telaprevir as a treatment for patients infected with genotype 1 HCV who have not received previous treatment for their infection, referred to as treatment-naïve patients, and patients infected with

genotype 1 HCV who have failed to achieve a sustained viral response, or SVR, after prior treatment with pegylated-interferon, or peg-IFN, and ribavirin, or RBV, referred to as treatment-failure patients.

Become a biopharmaceutical company capable of discovering, developing and commercializing medicines. We believe we need an effective sales and marketing organization to augment our research capabilities, late-stage development organization and third-party manufacturing relationships. In 2010, we established a sales and marketing organization in the United States to support the sale of telaprevir, if approved. In order to support the potential Canadian launch of telaprevir, we have begun establishing sales and marketing capabilities in Canada. If our registration program for VX-770 is successful, we also intend to establish sales and marketing capabilities in Europe in order to prepare for potential commercial sales of VX-770 in international markets.

Invest in research and early-stage and mid-stage clinical development programs. We intend to continue to invest significant resources in research programs and early-stage and mid-stage clinical development programs as part of our strategy to develop drug candidates in disease areas with significant unmet medical need. In 2011, we are continuing to conduct Phase 2 clinical trials involving drug candidates that could address significant unmet needs in HCV, CF, rheumatoid arthritis and epilepsy. We expect to continue focusing our research activities toward therapies addressing serious diseases, because we believe these therapies have the potential to deliver the greatest value for patients, physicians and the health care system.

Capitalize on collaboration arrangements and business development opportunities. Collaborations have provided us with financial support and other valuable resources for our development and research programs, and business development opportunities have provided us with drug candidates and important research resources that have contributed to a number of the drug candidates in our current development pipeline. We plan to continue to rely on collaborators to support, develop and/or commercialize some of our drug candidates in markets in which we are not concentrating our resources. We also opportunistically seek to license or acquire drugs, drug candidates and other technologies that have the potential to strengthen our pipeline, drug discovery platform or commercial opportunities.

DRUG CANDIDATES

HCV Infection

Telaprevir (VX-950) (investigational oral HCV protease inhibitor for the treatment of HCV infection)

Telaprevir, our lead drug candidate, is an orally-administered hepatitis C protease inhibitor that we have evaluated in treatment-naïve and treatment-failure patients with genotype 1 HCV infection in combination with peg-IFN and RBV. Telaprevir works by inhibiting the NS3-4A serine protease, an enzyme necessary for HCV replication.

We have collaboration agreements with Janssen Pharmaceutica, N.V., or Janssen, a Johnson & Johnson company, and Mitsubishi Tanabe Pharma Corporation, or Mitsubishi Tanabe, relating to the development and commercialization of telaprevir. Pursuant to these agreements, we are responsible for the commercialization of telaprevir in North America, Mitsubishi Tanabe is responsible for the commercialization of telaprevir in certain Far East countries, including Japan, and Janssen is responsible for the commercialization of telaprevir in the rest of the world. Telaprevir was discovered in our collaboration, now ended, with Eli Lilly and Company. We expect to pay Eli Lilly certain royalties on future sales of telaprevir.

On November 23, 2010, the FDA received our NDA for telaprevir. In January 2011, the telaprevir NDA was accepted for filing by the FDA, and we received priority review designation. The FDA's target review completion date for telaprevir is May 23, 2011. The FDA's regulatory review process for

the telaprevir NDA includes, among other things, a detailed review by the FDA of the data and information contained in the NDA, meetings and frequent communications between us and representatives of the FDA, and FDA inspections, including inspections of clinical trial sites and third-party facilities used to manufacture telaprevir. If applicable regulatory criteria are not satisfied, the FDA could refuse to approve or delay the approval of the telaprevir NDA. In addition, we have completed our New Drug Submission to the Therapeutic Product Directorate of Health Canada. Telaprevir was granted priority review in Canada. We are seeking to obtain approval for and launch telaprevir in Canada in the second half of 2011.

In December 2010, Janssen announced that the marketing authorization application, or MAA, for telaprevir was granted accelerated assessment by the European Medicines Agency, or EMA, in the European Union. Review under the accelerated assessment procedure is provided by the EMA for drug candidates of major therapeutic interest and shortens the timeframe for review by the EMA. In the first quarter of 2011, the EMA accepted the telaprevir MAA. Janssen is seeking to obtain approval for and launch telaprevir in the European Union in the second half of 2011.

Background: Prevalence and Treatment of Hepatitis C Virus Infection

Exposure to the hepatitis C virus often leads to chronic infection, although patients frequently do not have symptoms and are unaware that they have become infected. Over time, liver inflammation develops in many patients, which can progress to scarring of the liver, called fibrosis, or more advanced scarring of the liver, called cirrhosis. Patients with cirrhosis may go on to develop liver failure or other complications of cirrhosis, including liver cancer. The World Health Organization has reported that HCV infection is responsible for more than 50% of all liver cancer cases and two-thirds of all liver transplants in the developed world.

The World Health Organization has estimated that about 170 million people are chronically infected with HCV worldwide and that an additional 3 million to 4 million people are infected each year. The Centers for Disease Control and Prevention have estimated that approximately 3.2 million people in the United States are chronically infected with HCV. The Institute of Medicine has estimated the infected population to be between 2.7 million and 3.9 million people.

Our clinical development activities related to telaprevir are focused on genotype 1 HCV infection, which is the most prevalent form of HCV infection in the United States, the European Union and Japan. We believe that approximately 2.6 million patients in the United States have genotype 1 HCV infection. We believe that these patients include approximately 750,000 patients who already have been diagnosed with genotype 1 HCV infection and 1.8 million patients who remain undiagnosed.

In addition to being the most prevalent form of HCV infection, infection with genotype 1 HCV is the most difficult to treat of the primary HCV genotypes. The current standard treatment for infection with genotype 1 HCV, which was first approved in 2001, is a combination of peg-IFN and RBV, generally administered for 48 weeks. This treatment regimen is associated with significant side-effects, including fatigue, flu-like symptoms, rash, depression and anemia. Among patients who begin treatment, a significant percentage of patients infected with genotype 1 HCV fail to achieve a long-term sustained response to therapy. In a clinical trial conducted by another company, involving approximately 3,070 treatment-naïve patients in the United States infected with genotype 1 HCV, between 59% and 62% of patients receiving peg-IFN and RBV failed to achieve an SVR. On an intent-to-treat basis, 56% of treatment-naïve patients in the control arm of our Phase 3 ADVANCE clinical trial, who received the current standard treatment for genotype 1 HCV infection, failed to achieve an SVR. We believe that there are over 250,000 patients infected with genotype 1 HCV in the United States who have failed to achieve an SVR after therapy with peg-IFN and RBV.

Telaprevir Clinical Development

Our registration program for telaprevir included the REALIZE clinical trial, a Phase 3 clinical trial in patients infected with genotype 1 HCV who failed to achieve an SVR with prior interferon-based treatment, and two Phase 3 clinical trials, ADVANCE and ILLUMINATE, in treatment-naïve patients infected with genotype 1 HCV.

REALIZE

REALIZE was a pivotal three-arm double-blinded placebo-controlled clinical trial of telaprevir-based treatment regimens that enrolled 662 patients with genotype 1 HCV infection who failed to achieve an SVR after treatment with peg-IFN and RBV. Patients were randomized 2:2:1 to the two telaprevir-based treatment arms and the control arm, respectively. REALIZE included the following patient groups:

- null responders—those patients who experienced at week 12 of prior therapy less than a 2 log $_{10}$ reduction in HCV RNA levels;
- partial responders—those patients who experienced in their prior course of therapy at least a 2 log $_{10}$ reduction in HCV RNA levels at week 12, but who failed to achieve undetectable HCV RNA levels by week 24; and
- relapsers—those patients who experienced undetectable HCV RNA levels at the completion of at least 42 weeks of prior treatment, but who relapsed after treatment ended.

REALIZE is the only Phase 3 clinical trial of an HCV protease inhibitor to date to enroll null responders. REALIZE's primary endpoint was SVR, defined as the percentage of patients who had undetectable HCV RNA levels both at the end of treatment and 24 weeks after the end of treatment, measured on an intent-to-treat basis. SVR was measured in each of the two telaprevir-based treatment arms compared to the control arm, as well as across the three subgroups of patients in the trial arms. One of the two telaprevir-based treatment arms evaluated a lead-in approach in which patients received four weeks of pre-treatment with peg-IFN and RBV before receiving telaprevir. Another objective of REALIZE was to explore the safety of telaprevir when dosed in combination with peg-IFN and RBV.

The following table sets forth the SVR rates on an intent-to-treat basis for patients in the control arm and the combined telaprevir-based treatment arms. In addition, the table includes a supplemental pooled analysis of the SVR rates on an intent-to-treat basis of the relapser and partial responder patients together, across both the control arm and the two telaprevir-based treatment arms combined.

	Relapsers	Partial Responders	Null Responders	Overall
All telaprevir-based treatment arms	86%	57%	31%	65%
	(245/286)	(55/97)	(46/147)	(346/530)
	Pooled Results: 78% (300/383)			
Control arm	24%	15%	5%	17%
	(16/68)	(4/27)	(2/37)	(22/132)
	Pooled Results: 21% (20/95)			

The table below sets forth the SVR rates on an intent-to-treat basis in each of the arms across the three subgroups of patients.

	Relapsers	Partial Responders	Null Responders	Overall
Telaprevir-based treatment arm (simultaneous start):				
telaprevir in combination with peg-IFN and RBV for 12 weeks, followed by peg-IFN combined with RBV for 36 weeks	83%	59%	29%	64%
Telaprevir-based treatment arm (lead-in approach):				
peg-IFN and RBV for 4 weeks, followed by telaprevir in combination with peg-IFN and RBV for 12 weeks, followed by peg-IFN combined with RBV for 32 weeks	88%	54%	33%	66%
Control arm:				
peg-IFN combined with RBV for 48 weeks	24%	15%	5%	17%

ADVANCE

ADVANCE was a pivotal three-arm double-blinded placebo-controlled clinical trial that enrolled 1,088 treatment-naïve patients with genotype 1 HCV infection. ADVANCE had two telaprevir-based treatment arms, one in which patients received 12 weeks of telaprevir-based triple combination therapy and one in which patients received 8 weeks of telaprevir-based triple combination therapy, in each case taking additional peg-IFN and RBV for a period of time after completing telaprevir dosing. Patients in both of the telaprevir-based treatment arms who met criteria for extended rapid viral response, or eRVR, completed all treatment after 24 weeks, while patients who responded to treatment but did not meet the eRVR criteria continued receiving peg-IFN and RBV for a total of 48 weeks of therapy. To satisfy our eRVR criteria, a patient must have had undetectable HCV RNA levels at the end of week 4 and week 12 after the start of treatment.

The primary endpoint of ADVANCE was SVR in each of the telaprevir-based treatment arms compared to the control arm. Another objective of ADVANCE was to explore the safety and tolerability of telaprevir when dosed in combination with peg-IFN and RBV. The SVR rates on an intent-to-treat basis for patients in ADVANCE are set forth in the table below.

	SVR Rates
12-week telaprevir-based treatment arm:	
telaprevir in combination with peg-IFN and RBV for 12 weeks, followed by peg-IFN combined with RBV for 12 weeks or 36 weeks	75%
8-week telaprevir-based treatment arm:	
telaprevir in combination with peg-IFN and RBV for 8 weeks, followed by peg-IFN combined with RBV for 16 weeks or 40 weeks	69%
48-week control arm:	
48 weeks of therapy with peg-IFN and RBV	44%

ILLUMINATE

ILLUMINATE was a supplemental Phase 3 clinical trial that included evaluation of 24-week and 48-week total treatment durations in treatment-naïve patients infected with genotype 1 HCV who achieved an eRVR in response to a telaprevir-based treatment regimen. This clinical trial was a randomized, open-label trial that enrolled 540 patients. ILLUMINATE was designed to supplement SVR data obtained from ADVANCE by evaluating the benefits and risks, for patients achieving an eRVR, of extending total treatment duration from 24 to 48 weeks. The SVR rates from the trial met predefined non-inferiority criteria established to compare the 24-week regimen and the 48-week regimen and thus indicated that there was no additional benefit to extending treatment to 48 weeks in

patients who achieve an eRVR. The following table provides SVR rates for patients who achieved an eRVR at week 4 and week 12, and remained on treatment through week 20.

	SVR Rate (For Patients Who Achieved eRVR)	Patients with SVR/Total Patients (Who Achieved eRVR)
24-week telaprevir-based treatment regimen:		
telaprevir in combination with peg-IFN and RBV for 12 weeks, followed by peg-IFN combined with RBV for 12 weeks	92%	149/162
48-week telaprevir-based treatment regimen:		
telaprevir in combination with peg-IFN and RBV for 12 weeks, followed by peg-IFN combined with RBV for 36 weeks	88%	140/160

The overall SVR rate for the patients enrolled in ILLUMINATE on an intent-to-treat basis was 72%. For patients who received the 24-week telaprevir-based treatment regimen after achieving an eRVR, remained on treatment through week 20 and had undetectable HCV levels at the end of treatment, the relapse rate was 5.7% (9/159). The relapse rate for patients who achieved an eRVR and received the 48-week telaprevir-based treatment regimen was 1.9% (3/154).

Safety and Tolerability

The safety and tolerability results of telaprevir-based combination therapy were consistent across the Phase 3 clinical trials. The most common adverse events, regardless of treatment regimen, were rash, fatigue, pruritis, headache, nausea, anemia, insomnia, diarrhea, flu-like symptoms and pyrexia. The majority were graded mild or moderate in severity.

Discontinuation of all study drugs in REALIZE, ADVANCE and ILLUMINATE during the telaprevir-based dosing period was as follows:

	Discontinuation of All Study Drugs During Telaprevir-dosing Period		
	Total	Rash	Anemia
REALIZE			
Telaprevir-based treatment arms:	4%	0.4%	0.6%
Control arm:	3%	0.0%	0.0%
ADVANCE			
12-week telaprevir-based treatment arm:	7%	1.4%	0.8%
8-week telaprevir-based treatment arm:	8%	0.5%	3.3%
Control arm:	4%	0.0%	0.6%
ILLUMINATE			
Telaprevir-based treatment regimen (no control arm):	7%	0.6%	1.1%

Additional Telaprevir Clinical Trials

In addition to our registration program for telaprevir, we have ongoing and planned clinical trials exploring telaprevir-based treatment regimens that may offer advantages to the regimens evaluated in our completed Phase 3 clinical trials. The first of these trials is an ongoing Phase 3b clinical trial, referred to as OPTIMIZE, designed to evaluate twice-daily dosing of telaprevir compared to three-times-daily dosing. We also are planning a Phase 2 clinical trial designed to evaluate shorter duration telaprevir-based treatment regimens for specific patient populations. We have ongoing and planned clinical trials designed to evaluate the potential for telaprevir to address other patient populations, including an ongoing Phase 2 clinical trial involving patients co-infected with genotype 1 HCV and the human immunodeficiency virus, or HIV. We also are planning a Phase 2 clinical trial in patients with

recurrent genotype 1 HCV infection who have received a liver transplant and are receiving commonly used immunosuppressive agents.

Mitsubishi Tanabe Clinical Program

Mitsubishi Tanabe has conducted Phase 3 clinical trials of telaprevir-based combination therapy in Japan that involved approximately 300 treatment-naïve and treatment-failure patients with HCV infection. Mitsubishi Tanabe filed for regulatory approval of telaprevir in Japan in January 2011.

VX-222 (investigational oral HCV polymerase inhibitor for the treatment of HCV infection)

HCV polymerase inhibitors, including our HCV polymerase inhibitor VX-222, are direct-acting antiviral agents that inhibit the replication of HCV, but through a mechanism distinct from HCV protease inhibitors such as telaprevir. We are conducting a Phase 2a clinical trial in patients with genotype 1 HCV designed to evaluate response-guided combination treatment regimens of telaprevir and VX-222. Dosing in this clinical trial began in August 2010. This trial originally included two treatment arms of patients receiving two-drug treatment regimens consisting of telaprevir and VX-222 and two treatment arms of patients receiving four-drug treatment regimens consisting of telaprevir, VX-222, peg-IFN and RBV. In the fourth quarter of 2010, we discontinued both of the two-drug treatment arms because patients in those arms met a pre-defined stopping rule related to viral breakthrough. The remaining two original treatment arms, with four-drug treatment regimens, are continuing without modification. In the four-drug treatment arms, patients who meet pre-defined rapid response criteria complete all treatment after 12 weeks and patients who respond to treatment but do not meet the rapid response criteria continue receiving peg-IFN and RBV for a total of 24 weeks of therapy. In the first quarter of 2011, we plan to begin enrolling patients in a new treatment arm for this clinical trial to evaluate 12-week or 24-week response-guided treatment regimens with telaprevir, VX-222 and RBV but without peg-IFN. We believe the initiation of this treatment arm is supported by emerging data from multiple ongoing clinical trials of direct-acting antiviral therapies, including trials of telaprevir/VX-222-based combination therapy, which suggest that adding RBV to a direct-acting antiviral treatment regimen may increase antiviral activity.

In addition to the clinical trial evaluating VX-222 in combination with telaprevir, we are conducting a Phase 2a clinical trial to evaluate multiple doses of VX-222 in combination with only peg-IFN and RBV. This Phase 2a clinical trial is designed to evaluate the safety, tolerability and antiviral activity of two dose levels of VX-222 (400 mg and 750 mg) in a total of 50 patients with genotype 1 HCV infection. Patients in the clinical trial are receiving VX-222 in combination with peg-IFN and RBV for 12 weeks, followed by peg-IFN and RBV for 36 weeks.

Cystic Fibrosis

Cystic fibrosis is a genetic disorder that affects about 30,000 people in the United States and 70,000 people worldwide. The drug candidates that we are developing for CF were selected because of their potential to address the underlying cause of CF by increasing the function of a defective protein in patients with CF, known as the cystic fibrosis transmembrane conductance regulator, or CFTR. The underlying cause of CF is a genetically inherited deficiency in the production or activity of the CFTR protein. The CFTR protein is involved in controlling the movement of chloride ions into and/or out of cells in the lung, sweat glands, pancreas and other organs. While CF is a systemic disease, progressive loss of lung function is the primary cause of increased mortality in patients with CF. Abnormally thick mucus in the lungs of patients with CF leads to chronic lung infections, lung inflammation and progressive decline in lung function. Some patients with CF also experience problems with digestion, due to a lack of CFTR function in the pancreas, resulting in the need for enzyme replacement therapy. According to the Cystic Fibrosis Foundation in 2008, the predicted median survival for patients with cystic fibrosis is 37 years.

CF develops when neither of the two copies of the *CFTR* gene, referred to as alleles, produce sufficient functional CFTR protein. There are numerous mutations in the *CFTR* gene that result in CF, including the G551D mutation and the F508del mutation. The G551D mutation results in a defect known as a gating defect, in which the CFTR protein reaches the cell surface but does not efficiently transport chloride ions across the cell membrane. The F508del mutation results in a defect known as a trafficking defect, in which the CFTR protein does not reach the cell surface in sufficient quantities.

According to the 2007 Cystic Fibrosis Foundation Patient Registry Annual Data Report in the United States, approximately 4% of patients with CF have the G551D mutation on at least one allele, 49% of patients with CF have the F508del mutation on both alleles and an additional approximately 38% of patients with CF have the F508del mutation on one allele. There are numerous other less prevalent CF mutations that result in gating and/or trafficking defects.

There is no available therapy that improves the function of defective CFTR proteins. Instead, available treatments for CF pulmonary disease focus on improving mucus clearance from the lungs as well as treating lung infections and inflammation. Improved mucus clearance is sought through physical therapy, inhalation of a mucus thinning drug such as Pulmozyme (dornase alpha), or inhalation of hypertonic saline. Lung infections are treated with inhaled and systemic antibiotics while inflammation is treated with anti-inflammatory agents like ibuprofen. In addition, the majority of CF patients take pancreatic enzyme supplements to assist with food absorption in digestion.

FEV_1, a measure of the amount of air that an individual can exhale in one second, is a test used to evaluate lung function. CF is characterized by progressive decreases in FEV_1 values compared to FEV_1 values observed in healthy individuals. The FEV_1 test has been used as an efficacy endpoint during testing of the currently approved pulmonary drugs for the treatment of CF. Since CF is a chronic disease, pivotal clinical trials of CF drug candidates have involved the measurement of FEV_1 values over a number of months. Mean increases in percent predicted FEV_1 of between 5% and 10% over 24-week periods have been observed in the pivotal clinical trials of the mucus thinning drugs and antibiotics most widely used for the management of CF.

We are conducting clinical trials of two drug candidates, VX-770 and VX-809, that were selected because of their potential to improve the function of defective CFTR proteins in patients with CF. We discovered VX-770 and VX-809 in our research collaboration with The Cystic Fibrosis Foundation Therapeutics Incorporated, or CFFT, and with the support and participation of the Cystic Fibrosis Foundation. We hold worldwide development and commercialization rights to VX-770 and VX-809, and we will pay royalties to CFFT on any future sales of VX-770 or VX-809.

VX-770 (investigational oral CFTR potentiator for the treatment of CF)

VX-770 is an investigational oral drug candidate that has the potential to increase chloride ion transport across cell membranes by partially restoring the activity of defective CFTR protein on the surface of the cells. In May 2009, we initiated a registration program, referred to as ENDEAVOR, for VX-770. The VX-770 registration program focuses on patients with the G551D mutation, because the G551D mutation is the most prevalent gating mutation in patients with CF. The registration program consists of three clinical trials designed to evaluate the safety and efficacy of VX-770.

The primary clinical trial, which is referred to as STRIVE, is a Phase 3 clinical trial of VX-770 that enrolled approximately 170 patients 12 years of age and older with the G551D mutation on at least one of the patient's two *CFTR* genes, or alleles. In this randomized, placebo-controlled, double-blind, parallel-group clinical trial, patients received either VX-770 or placebo for 48 weeks. The second clinical trial, which is referred to as ENVISION, is a Phase 3 clinical trial of VX-770 in patients between 6 to 11 years of age with the G551D mutation on at least one allele. ENVISION is a two-part, randomized, placebo-controlled, double-blind, parallel-group clinical trial of VX-770. We have completed Part 1 of ENVISION, which evaluated single-dose pharmacokinetics to determine the dose selection for children ages 6 to 11. Part 2 of the ENVISION trial enrolled approximately 50 patients who are receiving either VX-770 or placebo for 48 weeks. The primary endpoint for the STRIVE and ENVISION clinical trials is absolute change from baseline in percent predicted FEV_1 through week 24. Additional FEV_1 measurements taken through 48 weeks are a secondary endpoint. Secondary endpoints, including sweat chloride levels, will be measured to evaluate the effectiveness of VX-770 in improving the function of the defective CFTR protein.

The third clinical trial, which is referred to as DISCOVER, is a Phase 2 exploratory clinical trial of VX-770 that enrolled approximately 120 patients with CF who are 12 years of age and older and who have the F508del mutation on both alleles. In this randomized, placebo-controlled, double-blind, parallel-group trial, patients received either VX-770 or placebo for 16 weeks. The primary endpoints of the DISCOVER clinical trial are safety and change from baseline in percent predicted FEV_1 through week 16. Additional secondary endpoints, including sweat chloride levels, were measured. Based on data from our clinical trials and *in vitro* data to date, we anticipate that further clinical trials in patients homozygous for the F508del mutation will involve two drug candidates in combination, with one compound designed to address trafficking defects, such as VX-809, and another compound designed to address gating defects, such as VX-770.

We completed patient dosing in STRIVE in the first quarter of 2011 and in DISCOVER in 2010, and we expect to receive data from both these clinical trials in the first quarter of 2011. We expect to complete patient dosing in ENVISION in the first half of 2011 and to receive data from ENVISION in mid-2011. If our registration program for VX-770 is successful, we could submit an NDA and an MAA for VX-770 in the second half of 2011.

Completed Phase 2a Clinical Trial of VX-770

The Phase 2a clinical trial of VX-770 that preceded the ongoing registration program enrolled 39 patients with the G551D mutation on at least one allele, 20 of whom were enrolled in Part 1 of the clinical trial and 19 of whom were enrolled in Part 2 of the clinical trial. Patients in Part 1 of this clinical trial were dosed with VX-770 or placebo over 14 day periods. In Part 2 of this Phase 2a clinical trial, patients were dosed over 28 days in the following three arms: eight patients received 150 mg of VX-770 twice daily; seven patients received 250 mg of VX-770 twice daily; and four patients received a placebo twice daily. The primary endpoint of this Phase 2a clinical trial was safety. There were no serious adverse events attributable to VX-770 in this clinical trial, and no patients discontinued treatment over the 28-day dosing period of Part 2 of this clinical trial. The safety data from this clinical trial supported the initiation of the registration program for VX-770.

The secondary endpoints of this Phase 2a clinical trial measured lung function and CFTR protein function. We measured changes in lung function using FEV_1, and we evaluated CFTR activity through measurements of sweat chloride levels. Elevated sweat chloride levels—high levels of salt in sweat—occur in CF patients and result directly from defective CFTR activity in epithelial cells in the sweat ducts. Patients with CF typically have elevated sweat chloride levels that are in excess of 60 mmol/L, compared to normal values of less than 40 mmol/L. A summary of data regarding lung function and biomarkers of the CFTR protein function, including "p-values" from Part 2 of this Phase 2a clinical trial, is set forth in the table below. The result of statistical testing is often defined in terms of a

statistical "p-value," with a p-value of 0.05 or less generally considered to represent a statistically significant difference.

Number of Patients	Treatment Arm	FEV_1 Mean Increase from Baseline at Day 28 (p-value)	Sweat Chloride Mean Decrease from Baseline at Day 28 (p-value)	Sweat Chloride Baseline
8	150 mg	11.6% (p<0.01)	-52.8 mmol/L (p<0.01)	102 mmol/L
7	250 mg	7.4% (p<0.05)	-32.4 mmol/L (p<0.05)	95 mmol/L
4	Placebo	7.0% (p=0.13)	+4.8 mmol/L (p=0.38)	98 mmol/L

VX-809 (investigational oral CFTR corrector compound for the treatment of CF)

We are evaluating VX-809, an oral corrector compound that was selected because of its potential to increase the concentration of CFTR proteins on cell surfaces in patients with the F508del mutation, a mutation that results in a trafficking defect. *In vitro* , studies of correctors have suggested that these compounds can restore function of defective F508del CFTR protein, with increased trafficking of F508del CFTR protein to the cell surface and enhanced gating activity of F508del CFTR protein on the cell surface.

In the first quarter of 2010, we completed a Phase 2a, 28-day clinical trial of VX-809 as a single agent in 89 patients 18 years of age or older with the F508del mutation on both alleles. This Phase 2a clinical trial was a randomized, double-blind, placebo-controlled, multiple dose clinical trial. Patients received one of four doses of VX-809, or placebo, in addition to standard therapies for 28 days. The trial was designed primarily to evaluate the safety and tolerability of VX-809. Multiple secondary endpoints were utilized to determine any effect of VX-809 on CFTR protein function and lung function.

VX-809 was well-tolerated through 28 days of 25 mg, 50 mg, 100 mg and 200 mg once-daily dosing. In the trial, one patient discontinued treatment in each of the VX-809 treatment arms due to adverse events. Respiratory-related adverse events were the most commonly reported adverse events in the trial.

We also evaluated several secondary endpoints in the Phase 2a clinical trial. In the trial, there was a statistically significant decline in sweat chloride, compared to the baseline value prior to treatment, at both the 100 mg and 200 mg once-daily doses, suggesting that the activity of the CFTR protein was increased in patients during dosing. Additionally, we observed a dose response correlation with change in sweat chloride across the four dose groups. A summary of the data regarding sweat chloride levels from this Phase 2a clinical trial is set forth in the table below. The patients' mean baseline sweat chloride levels were approximately 100 mmol/L, which is consistent with sweat chloride measurements of patients with severe CF.

Treatment Arm	Mean Change in Sweat Chloride Levels from Baseline at Day 28	p-value
25 mg (once-daily)	0.1 mmol/L	.9753
50 mg (once-daily)	-4.6 mmol/L	.1323
100 mg (once-daily)	-6.1 mmol/L	.0498
200 mg (once-daily)	-8.2 mmol/L	.0092

The trial also included additional secondary endpoints to evaluate CFTR protein function, including CFTR protein trafficking, and lung function. The results from this Phase 2a clinical trial did not show any change in lung function, as measured by FEV_1 .

Phase 2a Combination Clinical Trial of VX-770 and VX-809

We are conducting a Phase 2a combination clinical trial of VX-770 and VX-809 in patients with the F508del mutation on both alleles. Enrollment is ongoing in Part 1 of this trial, which is designed to evaluate a 200 mg dose of VX-809, or placebo, alone for 14 days and then in combination with VX-770, or placebo, for 7 days. We expect to receive interim data from Part 1 of this combination trial in the first half of 2011.

Immune-mediated Inflammatory Diseases

VX-509 (investigational oral JAK3 inhibitor for the treatment of immune-mediated inflammatory diseases)

VX-509 is designed to inhibit Janus kinase 3, or JAK3, which is involved in signaling pathways that control the survival and proliferation of a type of white blood cell referred to as a lymphocyte. Because of JAK3's role in lymphocyte biology, we believe it is a promising target for the design of immunosuppressant drugs for treatment of a variety of immune-mediated diseases. Based on *in vitro* data, VX-509 appears to be a potent and selective inhibitor of JAK3.

In 2010, we initiated a Phase 2a clinical trial of VX-509 in patients with moderate-to-severe rheumatoid arthritis, or RA. We expect to enroll approximately 200 patients in this double-blind, randomized, placebo-controlled trial, which will evaluate the safety, tolerability and clinical activity of four doses of VX-509. Patients are receiving 12 weeks of treatment with VX-509 dosed twice daily compared to placebo. The primary endpoints of this clinical trial are to evaluate safety and to measure clinical signs and symptoms of RA in patients after 12 weeks of treatment. Efficacy assessments include the American College of Rheumatology criteria—ACR20, ACR50 and ACR70—for defining clinical improvement in patients with RA. ACR20, ACR50 and ACR70 are standardized measures of the number of patients who achieve at least a 20, 50 or 70 percent improvement, respectively, in ACR-specified measures of RA activity. The trial also utilizes disease activity scores, or DAS, and European League Against Rheumatism, or EULAR, response criteria as additional efficacy assessments. We expect to complete enrollment in this clinical trial in the first quarter of 2011 and to obtain clinical data, including measurements of safety, tolerability and clinical activity, in the third quarter of 2011.

Epilepsy

VX-765 (investigational oral Caspase-1 inhibitor for the treatment of epilepsy)

VX-765 is designed to inhibit Caspase, which is an enzyme that controls the generation of two cytokines, IL-1 β and IL-18, that are believed to mediate a wide range of immune and inflammatory responses in many cell types. Epilepsy is a chronic neurological disorder that is defined by recurrent seizures that are the result of overactive neurons in the brain. Recent studies suggest that inflammation and overproduction of IL-1 β may be associated with the initiation and maintenance of epileptic seizures. While there are a number of approved anticonvulsant medications used to treat patients with epilepsy, a substantial portion of patients are considered to be treatment-resistant because they continue to have seizures while taking approved anti-epileptic drugs.

VX-765 has been shown to inhibit acute seizures in preclinical models. In addition, VX-765 has shown activity in preclinical models of chronic epilepsy that do not respond to approved anti-epileptic drugs. VX-765 previously had been dosed in over 100 patients in Phase 1 and Phase 2a clinical trials relating to other diseases, including a 28-day Phase 2a clinical trial in patients with psoriasis. We terminated development for psoriasis in 2006 because patients did not show an adequate response to therapy with VX-765. We believe that the data we have from the nonclinical studies together with safety information from previous clinical trials in humans for VX-765 provide a rationale to explore the

clinical potential of this drug candidate as a treatment for epilepsy. We expect that VX-765 will be the first clinical drug candidate to target epilepsy through the inflammation pathway.

We recently completed the treatment phase of a Phase 2a clinical trial of VX-765 that enrolled approximately 75 patients with treatment-resistant epilepsy. The double-blind, randomized, placebo-controlled clinical trial was designed to evaluate the safety, tolerability and clinical activity of VX-765. Patients were monitored for seizure frequency during an initial six-week baseline period and then for six weeks while they received treatment with VX-765, followed by a further six-week observation period while they were no longer receiving VX-765. The primary endpoints of the trial were safety and tolerability. The secondary endpoints evaluated clinical efficacy relative to baseline, measured by reduction in seizure frequency and number of patients with a 50 percent or greater reduction in seizure frequency versus baseline. We currently are analyzing data from this trial.

COMMERCIAL ORGANIZATION

Over the past several years, we have expanded significantly our commercial organization in the United States. In 2010, we hired an experienced management team and more than 100 field-based employees, prepared our initial marketing strategies, and designed and implemented infrastructure that will be required to support commercial sales of telaprevir if it is approved for sale in the United States. We expect to complete these activities in the first half of 2011 and believe that our commercial organization will be prepared for the potential mid-2011 commercial launch of telaprevir in the United States. We also are planning to market telaprevir in Canada and believe that our commercial organization will be prepared for the potential Canadian launch of telaprevir in the second half of 2011.

We believe that we have developed a deep understanding of the HCV market in the United States and Canada. Our understanding incorporates information regarding the current standard of care as well as the attitudes of patients and health care providers toward current and potential therapies. We will be updating and refining our marketing strategies as we near the potential commercial launch of telaprevir. In addition, our government affairs and public policy group advocates for policies that promote life sciences innovation and increase awareness of the diseases on which we are focusing with state and federal legislatures, government agencies, public health officials and other policy-makers.

RESEARCH PROGRAMS

We believe that our integrated drug design approach has significantly enhanced our ability to discover and develop small molecule drug candidates directed at biologically complex targets associated with serious diseases. Our drug design platform integrates biology, pharmacology, drug metabolism and pharmacokinetics, toxicology, material sciences, biophysics, medicinal chemistry and process chemistry, automation and information technologies in a coordinated and simultaneous fashion throughout the discovery process. We believe that our approach has been validated through our success in moving drug candidates into clinical trials. We have decided to focus on several core therapeutic areas, in order to expand and develop our expertise in specific therapeutic areas and to permit a framework for portfolio planning and execution. Currently, the four therapeutic areas of highest priority to us are: infectious diseases, including viral infections, such as influenza, and bacterial infections; immune-mediated inflammatory diseases; cancer; and neurological diseases and disorders, including pain. Driven by the complexity of the therapeutic areas selected, we are attempting to identify multiple targets within each indication that, either as a stand-alone therapy or combination therapy, could provide treatment options that are transformational in nature. The objective of this approach is to enable us to eventually provide multiple drugs in each of these therapeutic areas. We select therapeutic areas by mapping our research strengths, including expertise in kinases, proteases and membrane proteins, onto therapeutic areas with high unmet need, with an emphasis on indications where we believe we, independently or in collaboration with other pharmaceutical companies, will be able to discover, develop, and

commercialize important medicines for serious diseases. Within each therapeutic area, we focus initially on specific indications.

Our past drug discovery efforts have produced a variety of drug candidates that have been commercialized or are in preclinical or clinical development. We believe our ongoing research programs continue to create value for us by generating new drug candidates in areas of significant unmet medical need. We are evaluating drug candidates in Phase 1 clinical trials and are engaged in nonclinical activities involving a number of additional investigational compounds, one or more of which may enter clinical development in 2011.

To augment our internal research programs, we seek to collaborate with leading academic research institutions, government laboratories, foundations and other organizations in order to advance research in our areas of therapeutic interest as well as in areas of basic technological enablement. We have established relationships with organizations and organized consortia of organizations from around the world with expertise in areas of interest to us, and intend to leverage that experience to further our research efforts.

CORPORATE COLLABORATIONS

We have entered into corporate collaborations with pharmaceutical and other companies and organizations that provide financial and other resources, including capabilities in research, development, manufacturing, and sales and marketing, to support our research and development programs.

Janssen Pharmaceutica, N.V.

In June 2006, we entered into a license, development, manufacturing and commercialization agreement with Janssen. Under the collaboration agreement, we collaborate with Janssen to develop and commercialize telaprevir. Under the terms of the collaboration agreement, we retain exclusive commercial rights to telaprevir in North America and lead the development plan for telaprevir in North America and the Janssen territories. Janssen has exclusive rights to commercialize telaprevir outside of North America and the Far East. In connection with the execution of the collaboration agreement, we received an up-front payment of $165.0 million in July 2006. As of December 31, 2010, we had received $100.0 million of contingent milestone payments related to the development of telaprevir under the collaboration agreement. In addition, the agreement provides for additional contingent milestone payments to us of up to $250.0 million related to the regulatory filing with and approval of telaprevir by the EMA, and the launch of telaprevir in the European Union. In the third quarter of 2009, we entered into two financial transactions related to these $250.0 million in potential future milestone payments, which are discussed in detail in our consolidated financial statements and management's discussion and analysis of financial condition and results of operations contained in this Annual Report on Form 10-K. In these transactions, we received $155.0 million in 2009 and a third party will receive the proceeds from the $250.0 million in potential milestone payments payable to us by Janssen, when and if we become entitled to them.

Janssen is responsible for 50% of drug development costs under the development program for North America and the Janssen territories. Each of the parties to the collaboration agreement is responsible for drug supply in their respective territories. The collaboration agreement also includes a tiered royalty payable to us averaging in the mid-20% range, as a percentage of net sales in the Janssen territories, depending upon successful commercialization. In addition, Janssen will be responsible for certain third-party royalties in its territories. Janssen may terminate the collaboration agreement upon six months' notice to us. In such an event, all manufacturing, commercialization and intellectual property rights to telaprevir in the Janssen territories under the collaboration agreement will revert to us.

As part of the collaboration agreement, following regulatory approval and commercialization of telaprevir in both North America and Janssen's territories, we have agreed to establish a global health initiative with Tibotec, an affiliate of Janssen, with the goals of advancing the prevention, diagnosis, treatment and cure of HCV infection, which will be principally directed toward developing countries.

Mitsubishi Tanabe Pharma Corporation

In June 2004, we entered into a collaboration agreement with Mitsubishi Tanabe pursuant to which Mitsubishi Tanabe agreed to provide financial and other support for the development and commercialization of telaprevir. Under the terms of the agreement, Mitsubishi Tanabe has the right to develop and commercialize telaprevir in Japan and specified other Far East countries. The original agreement provided for payments by Mitsubishi Tanabe to us through Phase 2 clinical development, including an up-front license fee, development stage milestone payments and reimbursement of certain drug development costs for telaprevir.

In July 2009, we amended the collaboration agreement with Mitsubishi Tanabe. Under the amended agreement, we received $105.0 million in 2009, and will be eligible to receive a further contingent milestone payment, which if realized would range between $15.0 million and $65.0 million. The amended agreement provides Mitsubishi Tanabe with a fully-paid license to manufacture and commercialize telaprevir to treat HCV infection in Japan and specified other countries in the Far East. Mitsubishi Tanabe is responsible for its own development and manufacturing costs in its territory. Mitsubishi Tanabe may terminate the agreement at any time without cause upon 60 days' prior written notice to us, in which case all rights to telaprevir will revert to us.

Cystic Fibrosis Foundation Therapeutics Incorporated

In May 2004, we entered into a collaboration agreement with CFFT, the non-profit drug discovery and development affiliate of the Cystic Fibrosis Foundation, pursuant to which CFFT provided us with partial funding through 2008 for our CF research and development programs. VX-770 and VX-809 were discovered by us under this research collaboration. We retain the right to develop and commercialize any compounds discovered in the course of the research collaboration, including VX-770 and VX-809, and we will pay a royalty to CFFT on the net sales of any approved drugs discovered in the collaboration.

GlaxoSmithKline plc

In 1993, we entered into a collaboration with GlaxoSmithKline plc covering the research, development and commercialization of HIV protease inhibitors. Lexiva/Telzir and Agenerase, two HIV protease inhibitors that have been approved as treatments for HIV infection, were discovered under this agreement. The agreement provides that GlaxoSmithKline will pay us a royalty on all net sales of the HIV protease inhibitors covered by the agreement. In May 2008, we sold our right to receive future royalties from GlaxoSmithKline with respect to these HIV protease inhibitors, excluding the amount necessary to pay a third party a subroyalty on these net sales, for a one-time cash payment to us of $160.0 million.

INTELLECTUAL PROPERTY

We actively seek protection for our products and proprietary information by means of United States and foreign patents, trademarks and copyrights, as appropriate. In addition, we rely upon trade secret protection and contractual arrangements to protect certain of our proprietary information and products. We have patents and pending patent applications that relate to potential drug targets, compounds we are developing to modulate those targets, methods of making or using those compounds and proprietary elements of our drug discovery platform.

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, as well as our consultants and advisors when feasible, to enter into confidentiality agreements that require disclosure and assignment to us of ideas, developments, discoveries and inventions made by these employees, consultants and advisors in the course of their service to us.

While we have numerous issued patents and pending patent applications in our patent portfolio, we believe that the patents and patent applications in the United States and the European Union that are the most important to our business are those that claim the composition-of-matter of drug candidates that have progressed at least into Phase 2 clinical trials. The following table sets forth the status of the primary patents and patent applications in the United States and the European Union covering the composition-of-matter of these drug candidates:

Drug Candidate	Status of United States Patent (Anticipated Expiration, Subject to Potential Extensions)	Status of European Union Patent (Anticipated Expiration, Subject to Potential Extensions)
telaprevir (VX-950)	Granted (2025)	Granted (2021)
VX-770	Granted (2025)	Application Pending (2025)
VX-222	Granted (2027)	Application Pending (2027)
VX-809	Application Pending (2026)	Application Pending (2026)
VX-509	Application Pending (2025)	Application Pending (2025)
VX-765	Granted (2021)	Application Pending (2021)

The United States patent covering the composition-of-matter for telaprevir was granted in 2010 with a term that expires in 2025. We do not expect material extensions to the term of the patent covering the composition-of-matter of telaprevir in the United States. In the European Union, we expect to obtain extensions to the term of the patent covering the composition-of-matter of telaprevir and that as a result of these extensions the patents will expire in 2026. We will need to apply separately for the extensions in the European Union on a country-by-country basis.

We hold issued patents and pending patent applications in the United States, and in foreign countries we deem appropriate, claiming intellectual property developed as part of each of our significant research and development programs. In addition to the composition-of-matter patents and patent applications listed above, our intellectual property holdings include but are not limited to:

- United States and foreign patents and patent applications covering telaprevir, VX-222 and other HCV protease and polymerase inhibitors and the use of these compounds to treat HCV infection.
- United States and foreign patent applications covering potentiators and correctors of the CFTR protein, including VX-770 and VX-809 and many other related compounds, and the use of those potentiators and correctors to treat CF.
- United States and foreign patents and patent applications covering inhibitors of a variety of kinase proteins, including VX-509, a JAK3 inhibitor.
- United States and foreign patents and patent applications covering caspase-1 inhibitors, including VX-765.
- United States and foreign patent applications covering the manufacture, pharmaceutical compositions, related solid forms, formulations, dosing regimens and methods of use of these compounds, including telaprevir and VX-770.

We cannot be certain, however, that issued patents will be enforceable or provide adequate protection or that pending patent applications will result in issued patents.

From time to time we enter into non-exclusive license agreements for proprietary third-party technology used in connection with our research activities. These license agreements typically provide for the payment by us of a license fee, but may also include terms providing for milestone payments or royalties for the development and/or commercialization of our drug products arising from the related research.

MANUFACTURING

Manufacturing Approach and Philosophy

As we advance our proprietary drug candidates through clinical development toward commercialization, we continue to build and maintain our supply chain and quality assurance resources. We rely on an international network of third parties to manufacture and distribute our drug candidates for clinical trials, and we expect that we will continue for the foreseeable future to rely on third parties to meet our commercial supply needs for any of our drug candidates that are approved for sale.

Our supply chain for sourcing raw materials and manufacturing drug product ready for distribution is a multi-step international endeavor. Third-party contract manufacturers, including some in China, supply us with raw materials, and contract manufacturers in the European Union and the United States convert these raw materials into drug substance, and convert the drug substance into final dosage form. Establishing and managing this global supply chain requires a significant financial commitment and the creation and maintenance of numerous third-party contractual relationships.

We are focusing resources on the development of systems and processes to track, monitor and oversee our third-party manufacturers' activities. We regularly evaluate the performance of our third-party manufacturers with the objective of confirming their continuing capabilities to meet our needs efficiently and economically. Manufacturing facilities, both foreign and domestic, are subject to inspections by or under the authority of the FDA and by or under the authority of other federal, state, local or foreign authorities. A failure by any of our third-party manufacturers to pass an inspection could adversely affect our ability to launch telaprevir or VX-770 in a timely manner, if we obtain marketing approval, or adversely affect our ability to continue to distribute telaprevir or VX-770 after launch.

We have established a quality assurance program intended to ensure that our third-party manufacturers and service providers produce materials and provide services, when applicable, in accordance with the FDA's current Good Manufacturing Practices, or cGMP, and other applicable regulations.

Manufacture of Telaprevir Clinical and Commercial Supplies

We require a supply of telaprevir for our clinical trials and have agreed to exercise our contractual rights from our third-party manufacturers to provide a supply of telaprevir to Janssen and Mitsubishi Tanabe for their clinical trials. We also will require a supply of telaprevir for sale in North America if we obtain marketing approval. In addition, we have agreed to exercise our contractual rights from our third-party manufacturers to provide, until April 2012, a supply of telaprevir drug substance to Mitsubishi Tanabe for their use in manufacturing telaprevir in final dosage form for sale, if approved, in its territory. We also have agreed to supply telaprevir drug substance, intermediates and final drug product to Janssen as a secondary source until June 2011.

We are manufacturing telaprevir, through our third-party manufacturing network, to meet our, Janssen's and Mitsubishi Tanabe's clinical supply needs and our needs for commercial supplies of telaprevir, if approved. We believe our past and continuing efforts to expand our relationships with third-party manufacturers and oversee their activities will be important to support a timely and effective commercial launch of telaprevir and its consistent supply in subsequent years.

We have completed the transfer of technical information regarding the manufacture of telaprevir to Janssen so that Janssen will be able to manufacture telaprevir, if approved, for sale in Janssen's territories and as a secondary supply source of drug substance for us. While we believe there are multiple third parties capable of providing most of the materials and services we need in order to manufacture and distribute telaprevir, and that supply of materials that cannot be second-sourced can be managed with inventory planning, there is always a risk that we may underestimate demand, and that our manufacturing capacity through third-party manufacturers may not be sufficient. In addition, because of the significant lead times involved in our supply chain for telaprevir, we may have less flexibility to adjust our supply in response to changes in demand than if we had shorter lead times.

Manufacture of VX-770 Clinical and Commercial Supplies

We require VX-770 for clinical trials in North America and Europe, and will require a supply of VX-770 for sale in North America and international markets if we obtain marketing approval. We obtain VX-770 to meet our clinical supply needs through a third-party manufacturing network and are in the process of validating the manufacturing processes that will be required to produce VX-770, if approved, at a commercial scale.

COMPETITION

The pharmaceutical industry is 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 areas that we are targeting. Many of our competitors have substantially greater financial, technical and human resources than we do and have more experience than us in the development of new drugs. In order for us to compete successfully, we may need to demonstrate greater safety, efficacy, ease of manufacturing and/or market acceptance of our products relative to competitors' products that have received or will receive regulatory approval for marketing.

We face competition based on the safety and efficacy of our drug candidates, the timing and scope of regulatory approvals, the availability and cost of supply, marketing and sales capabilities, reimbursement coverage, price, patent protection and other factors. Our competitors may develop or commercialize more effective, safer or more affordable products than we are able to develop or commercialize or obtain more effective patent protection. As a result, our competitors may commercialize products more rapidly or effectively than we do, which would adversely affect our competitive position, the likelihood that our drug candidates, if approved, would achieve initial market acceptance and our ability to generate meaningful revenues from those drugs. Even if our drug candidates are approved and achieve initial market acceptance, future competitive products may render our drugs obsolete or noncompetitive. If any such drug is rendered obsolete or noncompetitive, we may not be able to recover the expenses of developing, stockpiling and commercializing that drug. With respect to all of our drugs and drug candidates, we are aware of existing treatments and numerous drug candidates in development by our competitors.

HCV Infection

Current HCV Market

A 48-week course of both peg-IFN, which requires weekly injections, and RBV, which is an oral drug, is the current standard treatment for genotype 1 HCV infection. This treatment regimen is associated with significant side-effects, including fatigue, flu-like symptoms, rash, depression and anemia. A majority of patients who begin treatment do not achieve an SVR. Based on discussions with physicians who treat patients infected with HCV, we believe that there are a significant number of patients with HCV who may consider treatment with new, more effective therapies.

Initial Anticipated Competitive Landscape for Telaprevir

Merck & Co., Inc.'s protease inhibitor, boceprevir, is the only HCV protease inhibitor that is being developed on a timeline comparable to telaprevir. Merck completed Phase 3 clinical trials of boceprevir-based treatment regimens in 2010. Merck announced in January 2011 the FDA had granted priority review of its NDA for boceprevir. As a result, we expect that boceprevir will be reviewed by the FDA on a very similar timeline to telaprevir and may be approved shortly prior to telaprevir. Merck's Phase 3 clinical trials of boceprevir included a clinical trial, RESPOND-2, that evaluated response-guided boceprevir-based triple combination therapy in treatment-failure patients but excluded null responders to prior treatment, and a clinical trial, SPRINT-2, that evaluated response-guided boceprevir-based triple combination therapy in treatment-naïve patients. Merck reported results from these clinical trials in the second half of 2010. In November 2009, Merck initiated another Phase 3 clinical trial for boceprevir that it estimated would enroll approximately 660 patients infected with genotype 1 HCV to compare the effect on efficacy of erythropoietin use versus reducing the dose of RBV for the management of anemia.

If telaprevir and boceprevir are both approved on a comparable timeline, we believe that the drugs would compete in the marketplace based on, among other things, safety and efficacy data from their respective clinical trials, breadth of approved use, dosing regimen, cost, cost of co-therapies and side-effect profiles.

Long-term Competitive Landscape in HCV

We are aware of numerous other compounds in clinical trials that target HCV infection through a number of different mechanisms of action, and we believe that there are many additional potential HCV treatments in research or early development. There are a number of earlier-stage protease inhibitors, HCV polymerase inhibitors and HCV NS5A inhibitors, each of which is a direct-acting antiviral compound. We believe the most advanced of these compounds is TMC-435, a protease inhibitor being developed by Tibotec, an affiliate of our collaborator Janssen, and Medivir AB. In the first quarter of 2011, Tibotec initiated the first Phase 3 clinical trial of TMC-435. We believe that these earlier-stage drug candidates, if approved, would be launched several years after telaprevir. If any of these drug candidates is approved as a treatment for HCV infection, we expect that they would compete with telaprevir on the basis of the factors described above.

Future competition in the HCV treatment market may result from the administration of combinations of new oral therapies, and we are aware of a number of companies focusing on developing combinations of direct-acting antiviral compounds. We are conducting a Phase 2a clinical trial in which we plan to evaluate an all-oral combination of VX-222, our lead polymerase inhibitor, with telaprevir and RBV, but without peg-IFN. We are aware that many companies, including Abbot Laboratories, Bristol-Myers Squibb Company, Gilead Sciences, Inc., Intermune, Inc., Merck, Pharmasset, Inc., and Hoffman-La Roche, are seeking to develop combination regimens to treat HCV infection, including several combinations being evaluated in Phase 2 clinical trials.

CF

Several companies are engaged in the process of developing treatments for CF, including a number of antibiotics and anti-inflammatory drug candidates and at least one drug candidate that is designed to improve the function of the CFTR protein. PTC Therapeutics, Inc. in collaboration with Genzyme Corporation is evaluating ataluren in a Phase 3 clinical trial in patients with CF. Ataluren is a drug candidate designed to improve the production of CFTR proteins in patients with nonsense genetic mutations that halt the production of CFTR proteins before the protein is fully formed.

GOVERNMENT REGULATION

The research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record keeping, promotion, advertising, distribution and marketing of the drug candidates that we are developing are subject to extensive regulation by United States and foreign governmental authorities. In particular, pharmaceutical products are subject to rigorous preclinical, nonclinical and clinical testing and other approval requirements by the FDA in the United States under the Federal Food, Drug and Cosmetic Act, and by comparable agencies in most foreign countries. In addition to prohibiting the sale and distribution of pharmaceutical products prior to regulatory approval, the FDA and comparable agencies in most foreign countries prohibit the pre-approval promotion of investigational drugs. We have summarized the FDA process below, but other countries may have different approval processes with which we or our collaborators will need to comply if we seek to conduct clinical trials or obtain marketing approval in those countries. In addition, even if we ultimately intend to seek initial marketing approval in the United States, we may conduct early clinical trials in other countries, for a variety of reasons, and therefore the submission of our initial investigational new drug, or IND, application in the United States might not occur until after one or more foreign-sited clinical trials have been initiated.

FDA Approval Process

As an initial step in the FDA regulatory review process, toxicity studies in animals and other nonclinical studies typically are conducted to help identify potential safety problems that might be associated with administration of the drug candidate being tested. For certain diseases, animal models exist that are believed to be predictive of efficacy in humans. For such diseases, a drug candidate typically is tested for efficacy in that animal model. The results of these initial animal safety and disease model studies are submitted to the FDA as a part of the IND submission, prior to commencement of human clinical trials in the United States. For several of our drug candidates, no appropriately predictive animal model exists. As a result, no *in vivo* evidence of efficacy will be available until those drug candidates progress to human clinical trials. A variety of nonclinical studies in a number of animal species, and other nonclinical studies, ordinarily are conducted while human clinical trials are underway, to provide supplemental toxicology and other information. This information as well as the results from the early clinical trials provide a foundation for the design of broader and more lengthy human clinical trials.

Clinical trials typically are conducted in three sequential phases, although the phases may overlap. Phase 1 frequently begins with the initial introduction of the drug candidate into healthy human subjects prior to introduction into patients. The drug candidate may then be tested in a relatively small number of patients for preliminary information, dosage tolerance, absorption, metabolism, excretion, clinical pharmacology and, if possible, for early information on efficacy. Phase 2 typically involves trials in a small sample of the intended patient population to assess the efficacy of the drug for a specific indication, to determine dose tolerance and the optimal dose range and to gather additional information relating to safety and potential adverse effects. Phase 3 trials are undertaken to further evaluate clinical safety and efficacy in an expanded patient population at geographically dispersed trial sites, to obtain information on the overall risk-benefit ratio of the drug candidate and to provide an adequate basis for proposed labeling. Each trial is conducted in accordance with standards set forth in a protocol that details the design and objectives of the trial, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. For clinical trials in the United States, each protocol must be submitted to the FDA to supplement the original IND submission. Further, each clinical trial must be evaluated by an independent Institutional Review Board, or IRB, which evaluates clinical research at or for each institution at which the trial will be conducted. The IRBs will consider, among other things, ethical factors and the safety of human subjects in the proposed trials.

Data from nonclinical testing and all clinical trials, along with descriptions of the manufacturing process, analytical tests, proposed labeling and the proposed risk evaluation and mitigation strategies and other relevant information, are submitted to the FDA as part of requesting approval to market the drug in the NDA. The process of completing nonclinical and clinical testing, submitting the NDA 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 extensive data collection, verification, analysis and expense, and there can be no assurance that approval of the drug candidate that is the subject of a particular NDA will be granted on a timely basis, if at all. The FDA reviews all NDAs to ensure that they are sufficiently complete for substantive review before it accepts them for filing. The approval process is affected by a number of factors, including the severity of the targeted 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 compliance. Manufacturing facilities, both foreign and domestic, also are subject to inspections by the FDA and by other federal, state, local agencies or foreign authorities. In addition, the company developing a drug candidate typically must submit a plan setting forth its risk evaluation and mitigation strategies.

Under the FDA Modernization Act of 1997, the FDA may grant "Fast Track" designation to facilitate the development of a drug intended for the treatment of a serious or life-threatening condition if the drug demonstrates, among other things, the potential to address an unmet medical need. The benefits of Fast Track designation include scheduled meetings with the FDA to receive input on development plans, the option of submitting an NDA in sections rather than submitting all sections simultaneously, and the option of requesting evaluation of trials using surrogate endpoints. Fast Track designation does not necessarily lead to a priority review or accelerated approval of a drug candidate by the FDA. Telaprevir and VX-770 have received Fast Track designation by the FDA.

Timing to Approval

We estimate that it generally takes 10 to 15 years, or possibly longer, to discover, develop and bring to market a new pharmaceutical product in the United States as outlined below:

Phase:	Objective:	Estimated Duration:
Discovery	Lead identification and target validation	2 to 4 years
Preclinical	Initial toxicology for preliminary identification of risks for humans; gather early pharmacokinetic data; submit IND	1 to 2 years
Phase 1	Initial evaluation of safety in humans; study how the drug candidate works and is metabolized	1 to 2 years
Phase 2	Gather data on the effectiveness of the drug candidate and its optimal dosage; continue safety evaluation	2 to 4 years
Phase 3	Confirm efficacy, dosage regimen and safety profile of the drug candidate; submit NDA	2 to 4 years
FDA approval	Approval by the FDA to sell and market the drug for the approved indication	6 months to 2 years

A drug candidate may fail to progress at any point during this process. Animal and other nonclinical studies typically are conducted during each phase of human clinical trials.

Patent Term Restoration

Pursuant to the Drug Price Competition and Patent Term Restoration Act of 1984, referred to in the industry as the Hatch-Waxman Amendments, some of our patents, under certain conditions, may be eligible for limited patent term extension for a period of up to five years as compensation for patent term lost during drug development and the FDA regulatory review process. However, this extension period cannot go beyond 14 years from the drug's approval date. The patent term restoration period is generally one-half the period of time elapsed between the effective date of an IND application and the submission date of an NDA, plus the period of time between the submission date of the NDA and FDA approval. The United States Patent and Trademark Office, in consultation with the FDA, reviews and approves applications for any patent term extension or restoration. 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.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a "rare disease or condition" that affects fewer than 200,000 individuals in the United States. Orphan drug designation must be requested before submitting an NDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. If a drug that has an orphan drug designation subsequently receives the first FDA approval for the indication for which it has such designation, the product is entitled to orphan exclusivity. The first developer to receive FDA marketing approval for an orphan drug is entitled to a seven year exclusive marketing period in the United States for that drug. However, a drug that the FDA considers to be clinically superior to, or different from, another approved orphan drug, even though for the same indication, may also obtain approval in the United States during the seven-year exclusive marketing period. In addition, holders of exclusivity for orphan drugs are expected to assure the availability of sufficient quantities of their orphan drugs to meet the needs of patients. Failure to do so could result in the withdrawal of marketing exclusivity for the drug. VX-770 and VX-809 have been granted orphan drug designation.

Legislation similar to the Orphan Drug Act has been enacted in countries and regions outside the United States, including the European Union. The Orphan drug statutes in the European Union are available for therapies addressing chronic debilitating or life-threatening conditions that affect five or fewer out of 10,000 persons or that are financially not viable to develop. The market exclusivity period for orphan drugs in the European Union is ten years and may be extended to twelve years if the sponsor completes agreed-upon pediatric investigations. The exclusivity period can be reduced to six years if the sponsor cannot justify maintenance of market exclusivity based on available evidence regarding the profitability of the drug.

Post-approval Studies

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

Pricing and Reimbursement

Sales of drugs depend in significant part on the availability of reimbursement from third-party payors for the cost of the drug. Third-party payors include government health administrative authorities, managed care providers, private health insurers and other organizations. We anticipate third-party payors will provide reimbursement for our drugs if we are successful in obtaining marketing approval. Governments may regulate access to, prices of or reimbursement levels for our drugs to control costs or to affect levels of use of our drugs, and private insurers may be influenced by government reimbursement methodologies. In addition, third-party payors are increasingly raising challenges to proposed pricing, and in some cases, examining the cost-effectiveness of drugs before agreeing to a rate of reimbursement. The process of seeking reimbursement from third-party payors is time-consuming and expensive.

We expect to participate in the Medicaid rebate program. Under the Medicaid rebate program, we would pay a quarterly rebate for all drug sales that are reimbursed by Medicaid. The amount of the rebate is set by law as a minimum 23.1% of the average manufacturer price, or AMP, for the drug, or if it is greater, the difference between AMP and the best price available from us to any non-government customer. The rebate amount also includes an inflation adjustment if AMP increases greater than inflation.

Part D of the Medicare Prescription Drug, Improvement and Modernization Act of 2003, or Medicare Part D, provides coverage to enrolled Medicare patients for self-administered drugs such as pills, tablets and creams, that do not need to be injected or infused by a physician. However, Medicare Part D is administered by private prescription drug plans approved by the United States government and each drug plan establishes its own Medicare Part D formulary for prescription drug coverage and pricing, which the drug plan may modify from time-to-time. Some vendors solicit discounted pricing from manufacturers and commonly condition formulary placement on the availability of manufacturer discounts. We may need to provide such discounts in exchange for advantageous positioning for telaprevir, if approved, on formularies of nation-wide prescription drug plans participating in the Medicare Part D program as well as many of the large regional plans. The United States Congress could significantly change the Medicare Part D program in the future, including requiring the federal government to negotiate discounts for our drugs or matching mandatory discounts to those required in other federal programs.

Participation in the Medicaid rebate program will require us to extend comparable discounts under the Public Health Service, or PHS, pharmaceutical pricing program. The PHS pricing program extends discounts to community health clinics and other entities that receive health services grants from the PHS, as well as the many hospitals that serve a disproportionate share of financially needy patients. We also are required to offer discounted pricing to federal agencies via the Federal Supply Schedule, or FSS. FSS pricing is negotiated periodically with the Department of Veterans Affairs. Although FSS pricing is negotiated, it is intended to be no more than the price that we charge our most-favored non-federal customer for the drug. The minimum discount is set by statute at approximately 24%.

We expect that there may continue to be a number of federal and state proposals to implement governmental pricing controls and limit the growth of healthcare costs, including the cost of prescription drugs. For example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, collectively referred to as the PPACA, was enacted in 2010. The PPACA is expected to significantly affect the pharmaceutical industry. In addition, the PPACA imposes an annual fee, which will increase annually, on sales by branded pharmaceutical manufacturers starting in 2011. The financial impact of these discounts, increased rebates and fees and the other provisions of the PPACA on our business is unclear.

Reimbursement Outside of the United States

Outside the United States drugs are paid for by a variety of payors, with governments being the primary source of payment. In many countries the government closely regulates drug pricing and reimbursement and often has significant discretion in determining whether a product will be reimbursed at all and, if it is, how much will be paid. Negotiating prices with governmental authorities can delay patient access to and commercialization of drugs. Payors in many countries use a variety of cost-containment measures that can include referencing prices in other countries and using those reference prices to set their own price, mandatory price cuts and rebates. This international patchwork of price regulation has led to different prices across countries and could lead to cross-border trade from markets with lower prices.

Foreign Regulation

In addition to regulations in the United States, we and our collaborators are and will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of drugs. We are responsible for seeking approval for telaprevir in countries in North America and have submitted our application for regulatory approval in Canada. Under our telaprevir collaboration agreements, Janssen and Mitsubishi Tanabe are responsible for seeking regulatory approval and compliance with foreign regulations in their respective territories. Whether or not we obtain FDA approval for a drug, approval of a drug candidate by the comparable regulatory authorities of foreign countries must be obtained before we or our collaborators can commence clinical trials or marketing of the drug in those countries. The approval process varies from country to country and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country.

Under European Union regulatory systems, marketing authorization applications may be submitted either under a centralized or decentralized procedure. The centralized procedure, which is compulsory for medicines produced by certain biotechnological processes and optional for those that are highly innovative, provides for the grant of a single marketing authorization that is valid for all European Union member states. For drugs without approval in any European Union member state, the decentralized procedure provides for assessment of a marketing application by one member state, known as the reference member state, and review and possible approval of that assessment by one or more other, or concerned, member states. Under this procedure, an applicant submits an application, or dossier, and related materials—draft summary of product characteristics, draft labeling and package leaflet—to the reference member state and concerned member states. The reference member state prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the reference member state's assessment report, each concerned member state must decide whether to approve the assessment report and related materials. If a member state cannot approve the assessment report and related materials on the grounds of potential serious risk to public health, the disputed points may eventually be referred to the European Commission, whose decision is binding on all member states of the European Union.

Other Regulations

Pharmaceutical companies also are subject to various federal and state laws pertaining to health care "fraud and abuse," including anti-kickback laws and false claims laws. Anti-kickback laws make it illegal for any entity or person to solicit, offer, receive or pay any remuneration in exchange for or to induce the referral of business, including the purchase or prescription of a particular drug. False claims laws prohibit anyone from presenting or causing to be presented, to third-party payors, including Medicare and Medicaid, claims for payment for drugs or services that are false or fraudulent, claims for items or services not provided as claimed or claims for medically unnecessary items or services.

Actual knowledge of federal anti-kickback and criminal healthcare fraud laws or specific intent to violate those laws is not required.

In recent years, several states also have enacted legislation requiring pharmaceutical companies to establish marketing compliance programs with respect to interactions with health care providers and/or make reports to a designated state agency or otherwise publicly disclose information related to, among other things, transfers of value to health care providers. Many of these requirements are new and uncertain, and the penalties for failure to comply are unclear.

In addition to the statutes and regulations described above, we also are 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 federal, state, local and foreign statutes and regulations, now or hereafter in effect.

EMPLOYEES

As of December 31, 2010, we had 1,691 employees. The number of our employees increased by 18% during 2010, from 1,432 on December 31, 2009. We are likely to further increase our headcount in 2011. Of these employees, approximately 1,550 were based in the United States, 100 were based in Europe and 40 were based in Canada. Our scientific staff members have diversified experience and expertise in molecular and cell biology, biochemistry, synthetic organic chemistry, protein X-ray crystallography, protein nuclear magnetic resonance spectroscopy, microbiology, computational chemistry, biophysical chemistry, medicinal chemistry, clinical pharmacology and clinical medicine. Our clinical development personnel have extensive expertise in designing and executing clinical trials, and we are continuing to build our commercialization organization. Employees in our commercial organization have extensive experience in selling and marketing pharmaceutical products as well as seeking reimbursement from government and third-party payors for pharmaceutical products. Our employees are not covered by a collective bargaining agreement, and we consider our relations with our employees to be good.

OTHER MATTERS

Information Available on the Internet

Our internet address is *www.vrtx.com* . Our 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 "Finances/Investor Info-SEC Filings" 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.

Corporate Information

Vertex was incorporated in Massachusetts in 1989, and our principal executive offices are located at 130 Waverly Street, Cambridge, Massachusetts 02139. We have research sites located in San Diego, California; Coralville, Iowa; Montreal, Canada and Milton Park, U.K. We also have an office in Washington, D.C.

EXECUTIVE OFFICERS AND DIRECTORS

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

Name	Age	Position
Matthew W. Emmens	59	Chief Executive Officer, Chairman of the Board and President
Peter Mueller, Ph.D.	54	Executive Vice President, Global Research and Development, and Chief Scientific Officer
Ian F. Smith, C.P.A., A.C.A.	45	Executive Vice President and Chief Financial Officer
Nancy J. Wysenski	53	Executive Vice President and Chief Commercial Officer
Kenneth S. Boger, M.B.A., J.D.	64	Senior Vice President and General Counsel
Lisa Kelly-Croswell	44	Senior Vice President, Human Resources
Amit K. Sachdev, J.D.	43	Senior Vice President, Corporate Affairs and Public Policy, and Commercial Business Lead, Canada
Christiana Stamoulis, M.B.A.	40	Senior Vice President, Corporate Strategy and Business Development
Paul M. Silva	44	Vice President and Corporate Controller
Joshua S. Boger, Ph.D.	59	Director
Stuart J.M. Collinson, Ph.D.	51	Director
Eugene H. Cordes, Ph.D.	74	Director
Jeffrey M. Leiden, M.D., Ph.D.	55	Lead Independent Director
Wayne J. Riley, M.D., M.B.A.	51	Director
Bruce I. Sachs	51	Director
Elaine S. Ullian	63	Director
Dennis L. Winger	63	Director

Mr. Emmens has been our Chairman, Chief Executive Officer and President since May 2009. He has been a member of our Board of Directors since 2004 and became our President in February 2009. Mr. Emmens is the Chairman of the Board of Directors of Shire plc, a specialty biopharmaceutical company, and has been a member of Shire's board since March 2003. From March 2003 to June 2008, Mr. Emmens was also the Chief Executive Officer of Shire plc. Before joining Shire in 2003, Mr. Emmens served as President of Merck KGaA's global prescription pharmaceuticals business in Darmstadt, Germany. In 1999, he joined Merck KGaA and established EMD Pharmaceuticals, Inc., its United States prescription pharmaceutical business. Mr. Emmens held the position of President and Chief Executive Officer at EMD Pharmaceuticals from 1999 to 2001. Prior to this, Mr. Emmens held various positions, including Chief Executive Officer, at Astra Merck, Inc. as well as several positions at Merck & Co., Inc. Mr. Emmens was a member of the Board of Directors of Incyte Corporation from 2006 through February 2009. Mr. Emmens received a B.S. degree in business management from Farleigh Dickinson University.

Dr. Mueller is our Executive Vice President, Global Research and Development, a position he has held since May 2009, and has been our Chief Scientific Officer since July 2003. Dr. Mueller was our Executive Vice President, Drug Innovation and Realization, from February 2006 to May 2009, and our Senior Vice President, Drug Discovery and Innovation, from July 2003 to February 2006. Prior to joining us, Dr. Mueller was the Senior Vice President, Research and Development, of Boehringer Ingelheim Pharmaceuticals, Inc., with responsibility for the development of all drug candidates in the

company's portfolio in North America. He led research programs in the areas of immunology, inflammatory cardiovascular disease and gene therapy on a global basis. During his time with Boehringer Ingelheim, Dr. Mueller oversaw the discovery of numerous development candidates and held several positions in basic research, medicinal chemistry and management. Dr. Mueller received both an undergraduate degree and a Ph.D. in chemistry at the Albert Einstein University of Ulm, Germany, where he also holds a Professorship in Theoretic Organic Chemistry. He completed fellowships in quantum pharmacology at Oxford University and in biophysics at Rochester University.

Mr. Smith is our Executive Vice President and Chief Financial Officer, a position he has held since February 2006. From November 2003 to February 2006, he was our Senior Vice President and Chief Financial Officer, and from October 2001 to November 2003, he served as our Vice President and Chief Financial Officer. Prior to joining us, Mr. Smith served as a partner in the Life Science and Technology Practice Group of Ernst & Young LLP, an accounting firm, from 1999 to 2001. Mr. Smith initially joined Ernst & Young's U.K. firm in 1987, and then joined its Boston office in 1995. Mr. Smith currently is a member of the Boards of Directors of Acorda Therapeutics, Inc., Infinity Pharmaceuticals, Inc. and TolerRx Inc. 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.

Ms. Wysenski is our Executive Vice President and Chief Commercial Officer, a position she has held since December 2009. Prior to joining us, Ms. Wysenski held the position of Chief Operating Officer of Endo Pharmaceuticals, a 1,200-person specialty pharmaceutical company, where she led sales, marketing, commercial operations, supply chain management, human resources and various business development initiatives. Prior to her role at Endo, Ms. Wysenski participated in the establishment of EMD Pharmaceuticals, Inc., where she held various leadership positions, including the role of President and Chief Executive Officer from 2001 to 2006 and Vice President of Commercial from 1999 to 2001. From 1984 to 1998, Ms. Wysenski held several sales-focused roles at major pharmaceutical companies, including Vice President of Field Sales for Astra Merck, Inc. Ms. Wysenski serves on the North Carolina Central University Board of Trustees and as a director for Reata Pharmaceuticals, Inc., a privately held company. She is a founder of the Research Triangle Park chapter of the Healthcare Business Women's Association. Ms. Wysenski holds a B.S. from Kent State University and an Executive M.B.A. from Baldwin Wallace College.

Mr. Kenneth Boger is our Senior Vice President and General Counsel, a position he has held since joining us in 2001. He came to us from the law firm of Kirkpatrick & Lockhart LLP, now known as K&L Gates, 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 its Executive Committee from 1988 to 1997. Mr. Boger holds an A.B. in history from Duke University, an M.B.A. 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, one of our directors.

Ms. Kelly-Croswell is our Senior Vice President, Human Resources, a position she has held since July 2007. Ms. Kelly-Croswell served as our Vice President, Human Resources from July 2006 through June 2007. From November 2005 through June 2006, Ms. Kelly-Croswell served as Vice President of Human Resources of NitroMed, Inc., a pharmaceutical company. From February 2004 to November 2005, Ms. Kelly-Croswell served as Senior Vice President, Human Resources, for the Health Care Division and Service Operations, of CIGNA, an employee benefits company. From September 2001 to February 2004, Ms. Kelly-Croswell served as Vice President of Human Resources for Global Research and Development for the Monsanto Company, an agricultural products and solutions company that she joined in 1998. Ms. Kelly-Croswell holds a B.S. in Finance and an M.A. in Labor and Industrial Relations from the University of Illinois at Urbana-Champaign.

Mr. Sachdev is our Senior Vice President, Corporate Affairs and Public Policy, and Commercial Business Lead, Canada. As a Senior Vice President, he has led our government affairs, public policy and patient advocacy functions since he joined us in July 2007. In October 2010, he took on the added role of building and managing our Canadian business operations. Mr. Sachdev served as Executive Vice President, Health of the Biotechnology Industry Organization (BIO) from April 2005 through June 2007. At BIO, he was the senior executive responsible for managing BIO's Health Section and its Governing Board, and for directing all health care policy and execution. Mr. Sachdev was the Deputy Commissioner for Policy at the FDA from April 2004 through April 2005, and held several other senior positions within the FDA from September 2002 through April 2004. From 1998 to 2002, Mr. Sachdev served as Majority Counsel to the Committee on Energy and Commerce in the United States House of Representatives, where he was responsible for bioterrorism, food safety and environmental issues. From 1993 to 1997, Mr. Sachdev practiced law, first at the Chemical Manufacturers Association, and then with the law firm of Ropes & Gray. Mr. Sachdev holds a B.S from Carnegie Mellon University, and a J.D. from Emory University School of Law.

Ms. Stamoulis is our Senior Vice President, Corporate Strategy and Business Development, a position she has held since October 2009. She became a member of our executive team in October 2010. Prior to joining us, she was a Managing Director in Citigroup's Healthcare Banking Group from April 2006 to February 2009. From 2000 to April 2006, Ms. Stamoulis was an investment banker in the Healthcare Investment Banking Group of Goldman, Sachs & Co., where she was a Vice President from January 2002 through April 2006. Ms. Stamoulis started her career as a strategy consultant at The Boston Consulting Group. Ms. Stamoulis holds a B.S. in Economics and a B.S. in Architecture from the Massachusetts Institute of Technology and an M.B.A. from the MIT Sloan School of Management.

Mr. Silva is our Vice President and Corporate Controller, a position he has held since September 2008. Mr. Silva joined us in August 2007 as Senior Director, Accounting Operations. Prior to joining us, he was the Vice President, Internal Reporting at Iron Mountain Incorporated from July 2006 until August 2007 and a consultant to Iron Mountain's financing department from April 2005 until July 2006. He was the Finance Director of the Bioscience Technologies Division of Thermo Electron Corporation from 2002 to April 2005. Mr. Silva holds a B.S. in accounting from Assumption College.

Dr. Joshua Boger is the founder of Vertex and has been a director since our inception in 1989. He was our Chief Executive Officer from 1992 through May 2009. He was our Chairman of the Board from 1997 until May 2006 and our President from our inception until December 2000, and from 2005 through February 2009. He was our Chief Scientific Officer from 1989 until May 1992. 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, our Senior Vice President and General Counsel.

Dr. Collinson has been a member of our Board of Directors since July 2001. He currently serves as a Partner at Forward Ventures, a venture capital firm. Prior to our acquisition of Aurora Biosciences Corporation in 2001, Dr. Collinson served as the President, Chief Executive Officer and Chairman of the Board of Aurora. Dr. Collinson held senior management positions with Glaxo Wellcome from December 1994 to June 1998, 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.

Dr. Cordes has been a member of our Board of Directors since 2005, and a scientific advisor to us since 1996. Dr. Cordes was the Chairman of Vitae Pharmaceuticals, Inc., a position he held from

January 2002 to March 2006. Prior to joining Vitae Pharmaceuticals, Dr. Cordes was a professor of pharmacy at the University of Michigan. Dr. Cordes received a B.S. degree in chemistry from the California Institute of Technology and a Ph.D. in biochemistry from Brandeis University.

Dr. Leiden has been a member of our Board of Directors since July 2009 and was appointed our lead independent director in October 2010. He has more than 20 years of experience in the biomedical and pharmaceutical sectors. Dr. Leiden was President and Chief Operating Officer of Abbott Laboratories, Pharmaceuticals Products Group, and a member of the Board of Directors of Abbott Laboratories from 2001 to 2006. From 1987 to 2000, Dr. Leiden held several academic appointments, including the Rawson Professor of Medicine and Pathology and Chief of Cardiology and Director of the Cardiovascular Research Institute at the University of Chicago, the Elkan R. Blout Professor of Biological Sciences at the Harvard School of Public Health, and Professor of Medicine at Harvard Medical School. He is an elected member of both the American Academy of Arts and Sciences, and the Institute of Medicine of the National Academy of Sciences. Dr. Leiden is currently a Managing Director at Clarus Ventures, a life sciences venture capital firm he joined in 2006. Dr. Leiden is also currently a director and the non-executive Vice Chairman of the board of Shire plc, and a director of several private biotechnology companies. Dr. Leiden was a member of the Board of Directors of Millennium Pharmaceuticals, Inc. from October 2007 until it was acquired in June 2008. Dr. Leiden received both his M.D. and Ph.D. degrees from the University of Chicago.

Dr. Riley has been a member of our Board of Directors since July 2010. Dr. Riley is President and Chief Executive Officer of Meharry Medical College, a position he has held since January 2007. In addition, he holds the academic rank of Professor of Internal Medicine at both Meharry and Vanderbilt University Schools of Medicine. From May 2004 to December 2006, Dr. Riley served as a corporate officer and member of the executive management team as Vice President and Vice Dean for Health Affairs and Governmental Relations and Associate Professor of Medicine at Baylor College of Medicine, and Assistant Chief of Medicine at Ben Taub General Hospital, Baylor's primary adult public hospital teaching affiliate. He served as Assistant Dean for Education at Baylor College of Medicine from 2000 to 2004. Dr. Riley is a member of the Board of Directors of Pinnacle Financial Partners, Inc., a financial services holding firm, where he serves on the Audit and Corporate Governance and Nominating Committees. Dr. Riley earned a B.A. from Yale University, an M.P.H. in health systems management from the Tulane University School of Public Health and Tropical Medicine, an M.D. from the Morehouse School of Medicine and an M.B.A. from the Jones Graduate School of Business, Rice University.

Mr. Sachs has been a member of our Board of Directors since 1998. He is a General Partner at Charles River Ventures, a venture capital firm he joined in 1999. 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 Chief Executive Officer 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. Mr. Sachs was a director of BigBand Networks, Inc. from 2005 through June 2009. Mr. Sachs holds a B.S.E.E. in electrical engineering from Bucknell University, an M.E.E. in electrical engineering from Cornell University, and an M.B.A. from Northeastern University.

Ms. Ullian has been a member of our Board of Directors since 1997. From 1996 through January 2010, she served as President and Chief Executive Officer of Boston Medical Center, a private, not-for-profit, 626-bed, academic medical center with a community-based focus. 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 Fisher Scientific Inc. and Hologic, Inc. In addition, Ms. Ullian was a member of the Board of Directors of Valeant Pharmaceuticals, Inc. during 2005 through 2007.

Ms. Ullian holds a B.A. in political science from Tufts University and an M.P.H. from the University of Michigan.

Mr. Winger has been a member of our Board of Directors since July 2009. Mr. Winger has over 30 years of experience as a financial executive, the majority of which has focused on the life sciences industry. He retired in 2008 from Applera Corporation, a life sciences company, where he had been Senior Vice President and Chief Financial Officer since 1997. He was previously Senior Vice President of Finance and Administration, and Chief Financial Officer at Chiron Corporation. Before joining Chiron, Mr. Winger held various financial executive positions, including Chief Financial Officer of The Cooper Companies, Inc. Mr. Winger is currently a director of the following public companies: Accuray Incorporated; Cephalon Inc.; and Nektar Therapeutics. In addition, Mr. Winger was a member of the Board of Directors of A.P. Pharma, Inc. during 2005 and 2006 and a member of the Board of Directors of Cell Genesys, Inc. until its merger with BioSante Pharmaceuticals in October 2009. He holds an M.B.A. from Columbia University Graduate School of Business and he earned his undergraduate degree from Siena College.

ITEM 1A. RISK FACTORS

RISK FACTORS

Investing in our common stock involves a high degree of risk, and you should carefully consider the risks and uncertainties described below in addition to the other information included or incorporated by reference in this Annual Report on Form 10-K. If any of the following risks or uncertainties actually occurs, our business, financial condition or results of operations would likely suffer, possibly materially. In that case, the trading price of our common stock could decline.

Risks Related to Our Business

We depend heavily on the success in the United States of our lead drug candidate, telaprevir, which has not yet been approved by the FDA. If we experience material delays in obtaining or are unable to obtain marketing approval for telaprevir our business will be materially harmed.

We believe that a significant portion of the value attributed to our company by investors is based on the commercial potential of telaprevir, which has not yet been approved by the FDA. The FDA has substantial discretion in deciding whether or not telaprevir should be granted approval based on the benefits and risks of telaprevir-based therapies in the treatment of genotype 1 HCV infection. In November 2010, we submitted our NDA for telaprevir to the FDA. In January 2011, we were granted priority review designation for the telaprevir NDA from the FDA. Although the FDA's goal is to complete its review of NDA submissions granted priority review designation in the six-month period following the initial submission of the NDA, or by May 23, 2011 in the case of the telaprevir, the FDA is not under any legal obligation to complete its review within this timeframe. The granting of priority review designation for our NDA does not ensure that our NDA for telaprevir will be approved.

Obtaining approval to market telaprevir in a timely manner will depend on many factors, including the following:

- whether or not the FDA determines that the evidence gathered in well-controlled clinical trials, other clinical trials and nonclinical studies of telaprevir demonstrates that telaprevir is safe and effective as a treatment for genotype 1 HCV infection;
- whether or not the FDA is satisfied that the manufacturing facilities, processes and controls for telaprevir are adequate, that the labeling is satisfactory and that plans for post-marketing studies, safety monitoring and risk evaluation and mitigation are sufficient; and
- the timing and nature of the FDA's comments and questions regarding the NDA for telaprevir, the scheduling and recommendations of any advisory committee meeting to consider telaprevir, the time required to respond to the FDA's comments and questions and to obtain the final labeling for telaprevir and any other delays that may be associated with the NDA review process.

If we experience material delays in obtaining marketing approval for telaprevir in the United States, we will not receive product revenues during the delay and may be at a competitive disadvantage if Merck's potentially competitive HCV protease inhibitor boceprevir is approved significantly before telaprevir. Any such delay may materially harm our product revenues and cash flows. If we do not obtain approval to market telaprevir in the United States, our business will be materially harmed.

In order to execute our business plan and achieve profitability, we need to effectively commercialize telaprevir.

We can not be sure that telaprevir will be commercially successful in the pharmaceutical market even if we and Janssen gain marketing approval for telaprevir in a timely manner. In addition to the other challenges related to a company launching its first commercial drug, we may face competition from Merck & Co., Inc., which is developing boceprevir, a potentially competitive HCV protease inhibitor. In January 2011, Merck announced that it had received priority review designation from the

FDA for its NDA for boceprevir. As a result, we expect that boceprevir will be reviewed by the FDA on a very similar timeline to telaprevir and may be approved prior to telaprevir.

We expect that the initial commercial success of telaprevir will depend on many factors, including the following:

- the efficacy, cost, breadth of approved use, side-effect profile and cost of co-therapies of telaprevir-based treatment regimens relative to competitive treatment regimens, including boceprevir-based treatment regimens if boceprevir is approved;
- the relative timing of marketing approvals from the FDA and comparable foreign regulatory authorities for telaprevir and boceprevir;
- the effectiveness of our commercial strategy for the launch and marketing of telaprevir, including our pricing strategy and the effectiveness of our efforts to obtain adequate third-party reimbursements;
- the number of patients with genotype 1 HCV infection, including treatment-naïve patients and patients who did not achieve an SVR with prior treatment, who seek treatment;
- maintaining and successfully monitoring commercial manufacturing arrangements for telaprevir with third-party manufacturers to ensure they meet our standards and those of regulatory authorities, including the FDA, which extensively regulate and monitor pharmaceutical manufacturing facilities;
- our ability to meet the demand for commercial supplies of telaprevir;
- our ability to increase awareness of the benefits of early treatment of HCV infection and to increase the rates of diagnosis and subsequent treatment of currently undiagnosed patients with genotype 1 HCV infection;
- the acceptance of telaprevir by patients, the medical community and third-party payors; and
- the effect of new health care legislation currently being implemented in the United States.

While we believe that telaprevir will have a commercially competitive profile, we cannot accurately predict the amount of revenue that will be generated if telaprevir receives regulatory approval. If we do not effectively commercialize telaprevir, we will not be able to execute our business plan and may not be able to achieve profitability. If our revenues, market share and/or other indicators of market acceptance of telaprevir do not meet the expectations of investors or public market analysts, the market price of our common stock would likely decline.

Even if we or our collaborators gain regulatory approval for any of our drug candidates, if our recently established sales and marketing capabilities or our third-party relationships for the commercialization of our drug candidates are not effective, our drug candidates may not be successfully commercialized.

We have no experience as a company in marketing drugs or with respect to pricing and obtaining adequate third-party reimbursement for drugs. In 2010, we significantly expanded our commercial organization in the United States in order to prepare to market telaprevir and are establishing a commercial organization in Canada. We have entered into collaborations that provide our collaborators the right to market telaprevir outside of North America. We will need to expand our capabilities and/or enter into additional arrangements with third parties to sell and market our other drug candidates if they are approved for sale. To the extent that our collaborators have commercial rights to our drugs, any revenues we receive from sales of any approved drugs in locations where our collaborators have rights will depend primarily on the sales and marketing efforts of these collaborators, which we do not control and may not be able to effectively influence. If our recently established sales and marketing

capabilities or our third-party relationships for the commercialization of our drug candidates are not effective, our business could be materially harmed.

We are investing significant resources in our development program for VX-770, based primarily on data from a relatively small clinical trial in which patients received VX-770 over a short duration. If we are unable to show the safety and efficacy of VX-770, or experience delays in doing so, our business could be materially harmed.

We have increased the resources that we are investing in the development of VX-770 and are conducting a registration program for VX-770 focused on patients with CF who have the G551D mutation. We initiated this registration program based primarily on data from a Phase 2a clinical trial of VX-770 in 39 patients with CF, in which patients received VX-770 over 14-day and 28-day periods. This is a relatively small number of patients from which to project the final outcomes of a drug development program. In order to receive approval for VX-770, we will need to show that VX-770 is safe and effective in a larger number of patients than were involved in the Phase 2a clinical trial, over significantly longer dosing periods. In addition, our registration program for VX-770 includes pediatric patient populations in which VX-770 has not previously been studied. Since a substantial portion of the CF population is under age 18, VX-770's potential commercial success will be dependent not only on marketing approval for adult patients, but also on approval for pediatric patients. If we are unable to show the safety and efficacy of VX-770 in the relevant patient populations, or experience delays in doing so, our business could be materially harmed.

We expect to incur future losses, and we may never become profitable.

We have incurred significant operating losses each year since our inception, including net losses of $754.6 million, $642.2 million and $459.9 million during the years ended December 31, 2010, 2009 and 2008, respectively. We expect to continue to incur operating losses at least until we are able to obtain approval in the United States for telaprevir and begin generating product revenues, because we are continuing to invest significant amounts in telaprevir and VX-770, in clinical development of our earlier-stage drug candidates and in research activities. As a result, we believe it is likely that our expenses will exceed our revenues at least until we begin receiving substantial product revenues. There can be no assurance that any of our drug candidates will be approved or, if approved, will be commercially successful. There also can be no assurance that we will begin generating earnings as a cashflow positive company during 2012. Our net losses have had and will continue to have an adverse effect on, among other things, our stockholders' equity, total assets and working capital. We expect that our results of operations will fluctuate from quarter to quarter and year to year, and that such fluctuations may be substantial. We can not provide assurance that we will ever become profitable.

If any of our drug candidates receive regulatory approval, the approved drug will be subject to ongoing regulatory review. If we or our collaborators fail to comply with continuing United States and applicable foreign regulations, any approved drug could lose its approval or sales could be suspended, and our business would be seriously harmed.

If we or our collaborators receive regulatory approval for any of our drug candidates in development including telaprevir and VX-770, we and our collaborators will be subject to continuing regulatory review, including the review of clinical results reported after approval. Drugs are more widely used by patients once approval has been obtained and therefore side-effects and other problems may be observed after approval that were not seen or anticipated during pre-approval clinical trials or nonclinical studies. In addition, the manufacturers and the manufacturing facilities we engage to make any of our approved drugs also will be subject to periodic review and inspection by the FDA and applicable foreign regulatory authorities. The subsequent discovery of previously unknown problems with the drug, a manufacturer or manufacturing facility may result in restrictions on the drug, a

manufacturer or manufacturing facility, including withdrawal of the drug from the market, inability to use the facility to make our drug or a determination that drug inventories are not safe for commercial sale. If we or our collaborators fail to comply with applicable continuing regulatory requirements, we or our collaborators may be subject to fines, suspension or withdrawal of regulatory approval, product recalls and seizures, operating restrictions and/or criminal prosecutions.

Our drug candidates remain subject to clinical testing and regulatory approval. If we are unable to successfully develop and test our drug candidates, we will not be successful.

The success of our business depends primarily upon successful development and commercialization of our drug candidates. Our drug candidates are in various stages of development and must satisfy rigorous standards of safety and efficacy before they can be approved by the FDA or comparable foreign regulatory authorities for sale. To satisfy these standards, we must allocate resources among our various development programs and must engage in expensive and lengthy testing of our drug candidates. These discovery and development efforts for new pharmaceutical products, including follow-on compounds and/or new combination therapies, are resource-intensive and may take 10 to 15 years or longer for each drug candidate. Despite our efforts, our drug candidates may not:

- offer therapeutic or other improvement over existing competitive drugs;
- be proven safe and effective in clinical trials;
- meet applicable regulatory standards;
- be capable of being produced in commercial quantities at acceptable costs; or
- if approved for commercial sale, be successfully marketed as pharmaceutical products.

In addition to our registration program for VX-770, we have ongoing Phase 2a clinical trials for a number of our earlier-stage drug candidates, including a clinical trial of telaprevir/VX-222-based treatment regimens in patients with genotype 1 HCV infection, a clinical trial of VX-809 in combination with VX-770 in patients with the most common CF mutation, a clinical trial of VX-509 in patients with moderate-to-severe rheumatoid arthritis and a clinical trial of VX-765 in patients with epilepsy. While we are heavily dependent on obtaining approval for telaprevir and the success of our registration program for VX-770, the strength of our company's pipeline of drug candidates, including drug candidates that could potentially be complementary to telaprevir and/or VX-770, will depend in large part upon the outcomes of these ongoing Phase 2a clinical trials. Findings, including toxicology findings, in nonclinical studies conducted concurrently with clinical trials as well as results of our clinical trials could lead to abrupt changes in our development activities, including the possible cessation of development activities associated with a particular drug candidate or program. Furthermore, results from our clinical trials may not meet the level of statistical significance required by the FDA or other regulatory authorities for approval of a drug candidate.

We and many other companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in later-stage clinical trials even after achieving promising results in earlier-stage clinical trials. Accordingly, the results from the completed preclinical studies and clinical trials may not be replicated in later clinical trials, and ongoing clinical trials for our drug candidates may not be predictive of the results we may obtain in later-stage trials or of the likelihood of approval of a drug candidate for commercial sale. In addition, from time to time we report interim data from our clinical trials, including, with respect to our HCV drug candidates, data regarding patients' HCV RNA levels during treatment, at the completion of treatment or 12 weeks after completion of treatment. Interim data are subject to change, and there can be no assurances that interim data will be confirmed upon the analysis of final data.

If we are unable to obtain regulatory approval, we will be unable to commercialize our drug candidates.

Our drug candidates are subject to extensive governmental regulations relating to their development, clinical evaluation, manufacturing and commercialization. Rigorous nonclinical testing and clinical trials and an extensive regulatory approval process are required in the United States and in most other countries prior to the commercial sale of drug candidates. Satisfaction of these and other regulatory requirements is costly, time-consuming, uncertain and subject to unanticipated delays. It is possible that none of the drug candidates we are developing will be approved for marketing.

We have limited experience in conducting and managing the late-stage clinical trials and NDA process necessary to obtain regulatory approvals, including approval by the FDA. The time required to complete clinical trials and to satisfy the FDA and other countries' regulatory review processes is uncertain and typically takes many years. Our analysis of data obtained from nonclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. We may also encounter unanticipated delays or increased costs due to government regulation from future legislation or administrative action or changes in FDA policy during the period of drug development, clinical trials and FDA regulatory review.

Any delay in obtaining or failure to obtain required approvals could materially adversely affect our ability to successfully commercialize a drug candidate. Furthermore, any regulatory approval to market a drug may be subject to limitations that we do not expect on the indicated uses for which we may market the drug. Any such limitations could reduce the size of the market for the drug.

We also are subject to numerous foreign regulatory requirements governing the conduct of clinical trials, manufacturing and marketing authorization, pricing and third-party reimbursement. The foreign regulatory approval process includes all of the risks associated with the FDA approval process described above, as well as risks attributable to the satisfaction of foreign requirements. Approval by the FDA does not ensure approval by regulatory authorities outside the United States and approval by a foreign regulatory authority does not ensure approval by the FDA. Foreign jurisdictions may have different approval procedures than those required by the FDA and may impose additional testing requirements for our drug candidates.

We depend on third-party manufacturers, including sole source suppliers, to manufacture materials for clinical trials and expect to continue to rely on them to meet our commercial supply needs for any drug candidate that is approved for sale, including telaprevir. We may not be able to maintain these relationships and could experience supply disruptions outside of our control.

We rely on a worldwide network of third-party manufacturers to manufacture and distribute our drug candidates for clinical trials, and we expect that we will continue to rely on third parties for the foreseeable future to meet our commercial supply needs for any of our drug candidates that are approved for sale, including telaprevir. As a result of our reliance on these third-party manufacturers and suppliers, including sole source suppliers of certain components of our drug candidates, we could be subject to significant supply disruptions outside of our control. Our supply chain for sourcing raw materials and manufacturing drug product ready for distribution is a multi-step international endeavor. Third-party contract manufacturers, including some in China, supply us with raw materials, and contract manufacturers in the European Union and the United States convert these raw materials into drug substance and convert the drug substance into final dosage form. Establishing and managing this global supply chain requires a significant financial commitment and the creation and maintenance of numerous third-party contractual relationships. Although we attempt to effectively manage the business relationships with companies in our supply chain, we do not have control over their operations. There can be no assurance that we will be able to establish and maintain commercial supply chains on commercially reasonable terms, or at all, in order to support the launch of telaprevir or any of our other drug candidates.

We will require a supply of telaprevir for sale in North America if we are successful in obtaining marketing approval. We currently are exercising our contractual rights from our third-party manufacturers to provide a supply to Janssen and Mitsubishi Tanabe of telaprevir and/or materials required to manufacture telaprevir. We have completed the transfer of technical information regarding the manufacture of telaprevir to Janssen so that Janssen will be able to manufacture telaprevir for sale in Janssen's territories, if telaprevir is approved in any of these territories, and as a secondary supply source of drug substance for us. We believe there are multiple third parties capable of providing most of the materials and services we need in order to manufacture and distribute telaprevir. We also believe that supply of materials that can not be second-sourced can be managed with inventory planning. However, there is a risk that we may underestimate or overestimate demand, and the manufacturing capacity for which we planned and contracted with third-party manufacturers may not be sufficient or may result in more inventory than is necessary. In addition, because of the significant lead times involved in our supply chain for telaprevir, we may have less flexibility to adjust our supply in response to changes in demand than if we had shorter lead times.

We require a supply of VX-770 for clinical trials in North America and Europe, and we will require a supply of VX-770 for sale in North America and international markets if we obtain marketing approval for this drug candidate. We obtain VX-770 to meet our clinical supply needs through a third-party manufacturing network and are in the process of validating the manufacturing processes that will be required to produce VX-770, if approved, at a commercial scale. We are in the process of expanding our existing relationships with our third-party manufacturers and establishing new relationships with third-party manufacturers, in order to establish the supply chain for VX-770 that would be required to support a commercial launch of VX-770.

Even if we successfully establish arrangements with third-party manufacturers, supply disruptions may result from a number of factors, including shortages in product raw materials, labor or technical difficulties, regulatory inspections or restrictions, shipping or customs delays or any other performance failure by any third-party manufacturer on which we rely.

Any supply disruptions could disrupt the timing of our clinical trials and the commercial launch of any approved drugs. Furthermore, we may be required to modify our production methods to permit us to economically manufacture our drugs for commercial launch and sale. These modifications may require us to re-evaluate our resources and the resources of our third-party manufacturers, which could result in abrupt changes in our production methods and supplies. If any of our drug candidates are approved for sale, we similarly may be at risk of supply chain disruption for our commercial drug supply. In addition, holders of exclusivity for orphan drugs, which we expect to hold for VX-770 if it is approved, are expected to assure the availability of sufficient quantities of their orphan drugs to meet the needs of patients. Failure to do so could result in the withdrawal of marketing exclusivity for the orphan drug.

In the course of providing its services, a contract manufacturer may develop process technology related to the manufacture of our drug candidates 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 by other suppliers utilizing the same process.

If clinical trials for a drug candidate are prolonged or delayed, our development timelines for the affected drug candidate could be extended, our costs to develop the drug candidate could increase and the competitive position of the drug candidate could be adversely affected.

We can not predict whether or not we will encounter problems with any of our completed, ongoing or planned clinical trials that will cause us or regulatory authorities to delay or suspend clinical trials,

or delay the analysis of data from our completed or ongoing clinical trials. Any of the following could delay the clinical development of our drug candidates:

- ongoing discussions with the FDA or comparable foreign authorities regarding the scope or design of our clinical trials and the number of clinical trials we must conduct;
- delays in enrolling volunteers or patients into clinical trials, including as a result of low numbers of patients that meet the eligibility criteria for the trial;
- a lower than anticipated retention rate of volunteers or patients in clinical trials;
- the need to repeat clinical trials as a result of inconclusive results, unforeseen complications in testing or clinical investigator error;
- inadequate supply or deficient quality of drug candidate materials or other materials necessary for the conduct of our clinical trials;
- unfavorable FDA or foreign regulatory authority inspection and review of a manufacturing facility for a drug candidate or its relevant manufacturing records or a clinical trial site or records of any clinical or preclinical investigation;
- unfavorable scientific results from clinical trials of our drug candidates;
- serious and unexpected drug-related side-effects experienced by participants in our clinical trials;
- favorable results in testing of our competitors' drug candidates, or FDA or foreign regulatory authority approval of our competitors' drug candidates; or
- action by the FDA or a foreign regulatory authority to place a clinical hold on a trial.

Our ability to enroll patients in our clinical trials in sufficient numbers and on a timely basis will be subject to a number of factors, including the size of the patient population, the nature of the protocol, the proximity of patients to clinical sites, the availability of effective treatments for the relevant disease, the number of other clinical trials ongoing and competing for patients in the same indication and the eligibility criteria for the clinical trial. In addition, subjects may drop out of our clinical trials or may be lost to follow-up medical evaluation after treatment ends, and this could possibly impair the validity or statistical significance of the trials. Delays in patient enrollment or unforeseen drop-out rates may result in increased costs and longer development times.

We, our collaborators, the FDA or other applicable regulatory authorities may suspend clinical trials of a drug candidate at any time if we or they believe the subjects or patients participating in such clinical trials are being exposed to unacceptable health risks or for other reasons. Any such suspension could materially adversely affect the development of a particular drug candidate and our business.

In addition, it is impossible to predict whether legislative changes will be enacted, or whether FDA or other applicable regulatory authority regulations, guidance or interpretations will be changed, or what the impact of such changes, if any, may be. If we experience any such problems, we may not continue development of the drug candidate that is affected.

Government and other third-party payors seek to contain costs of health care through legislative and other means. If they fail to provide coverage and adequate payment rates for our future drugs, our revenues and prospects for profitability will be harmed.

In both domestic and foreign markets, our sales of any future drugs will depend in part upon the availability of reimbursement from third-party payors. Third-party payors include government health programs such as Medicare and Medicaid, managed care providers, private health insurers and other organizations. Governments and other third-party payors generally seek to contain or reduce the costs of health care through various means. For example, in certain foreign markets, pricing or profitability of therapeutic and other pharmaceutical products is subject to governmental control. In the United States, there have been, and we expect that there will continue to be, a number of federal and state proposals to implement similar governmental control. In the United States, the recently enacted PPACA will significantly affect the pharmaceutical industry. The PPACA will require discounts under the Medicare drug benefit program and increases the rebates paid by pharmaceutical companies on drugs covered by Medicaid. In addition, the PPACA imposes an annual fee, which will increase annually, on sales by branded pharmaceutical manufacturers starting in 2011. The financial impact of these discounts, increased rebates and fees and the other provisions of the PPACA on our business is unclear and there can be no assurance that our business will not be materially adversely affected by the PPACA.

In addition, third-party payors are increasingly attempting to contain health care costs by demanding price discounts or rebates and limiting both the types and variety of drugs that they will cover and the amounts that they will pay for drugs. As a result, they may not cover or provide adequate payment for our future drugs. We might need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of any future drugs to such payors' satisfaction. Such studies might require us to commit a significant amount of management time and financial and other resources. Our future drugs might not ultimately be considered cost-effective. Adequate third-party reimbursement might not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on payments allowed for lower-cost products that are already reimbursed, may be incorporated into existing payments for other products or services, and may reflect budgetary constraints and/or imperfections in Medicare or Medicaid data used to calculate these rates. Net prices for drugs may be reduced by mandatory discounts or rebates required by government health care programs. While we are implementing policies in an effort to comply with mandated reimbursement rates, the federal government, state governments and private payors frequently pursue actions against pharmaceutical and biotechnology companies alleging that the companies have overstated prices in order to inflate reimbursement rates. Any such action could adversely affect the pricing of and the commercial success of any of our drug candidates approved for sale.

Any legislation, or similar regulatory changes or relaxation of laws that restrict imports of drugs from other countries, also could reduce the net price we receive for our marketed drugs.

We have no experience as a company with respect to pricing and obtaining adequate third-party reimbursement for drugs. If our capabilities and policies in this are not effective, any future drugs may not be commercially successful and our business could be materially harmed.

Healthcare reform measures could hinder or prevent our drug candidates' commercial success.

The United States federal government and other governments have shown significant interest in pursuing healthcare reform. Any additional government-adopted reform measures could adversely affect the pricing of healthcare products, including any of our drug candidates approved for sale, in the United States or internationally and the amount of reimbursement available from governmental agencies or other third party payors. The continuing efforts of governments, insurance companies,

managed care organizations and other payors for healthcare products to contain or reduce healthcare costs may adversely affect our ability to set prices we believe are fair for any drugs we may develop and commercialize.

New laws, regulations and judicial decisions, or new interpretations of existing laws, regulations and decisions, relating to healthcare availability, methods of delivery or payment for drugs, or sales, marketing or pricing, may limit our potential revenues, and we may need to revise our research and development or commercialization programs. The pricing and reimbursement environment may change in the future and become more challenging due to several reasons, including policies advanced by the U.S. government, new healthcare legislation or fiscal challenges faced by government health administration authorities. Specifically, in both the United States and some foreign jurisdictions, there have been a number of legislative and regulatory proposals and initiatives to change the healthcare system in ways that could affect our ability to sell any of our drug candidates that are approved for sale. Some of these proposed and implemented reforms could result in reduced reimbursement rates for our drug candidates, which would adversely affect our business strategy, operations and financial results. For example, in March 2010, the PPACA, a legislative overhaul of the U.S. healthcare system, was enacted into law, which may have far reaching consequences for biopharmaceutical companies like us. As a result of this new legislation, substantial changes could be made to the current system for paying for healthcare in the United States, including changes made in order to extend medical benefits to those who currently lack insurance coverage. Extending coverage to a large population could substantially change the structure of the health insurance system and the methodology for reimbursement. If reimbursement for our approved drug candidates, if any, is substantially less than we expect in the future, or rebate obligations associated with them are substantially increased, our business could be materially and adversely impacted.

Further federal and state proposals and healthcare reforms could limit the prices that can be charged for the drug candidates that we develop and may further limit our commercial opportunity. Our results of operations could be materially adversely affected by the PPACA, by the Medicare prescription drug coverage legislation, by the possible effect of such current or future legislation on amounts that private insurers will pay and by other healthcare reforms that may be enacted or adopted in the future.

We expect that results from our and our collaborators' clinical development activities and the clinical development activities of our competitors will continue to be released periodically, and may result in significant volatility in the price of our common stock.

Any new information regarding our drug candidates or potentially competitive drugs or drug candidates, and in particular any new information regarding telaprevir and potentially competitive HCV drug candidates, can substantially affect investors' perceptions regarding our future prospects. We, our collaborators and our competitors periodically provide updates regarding drug development programs, typically through press releases, conference calls and presentations at medical conferences. These periodic updates often include interim or final results from clinical trials conducted by us, our collaborators or our competitors and/or information about our or our competitors' expectations regarding regulatory filings and submissions as well as future clinical development of our drug candidates or potentially competitive drugs or drug candidates. The timing of the release of information by us regarding our drug development programs is often beyond our control and is influenced by when we receive data from our clinical trials and by the general preference among pharmaceutical companies to disclose clinical data and other information during medical conferences. In addition, because clinical trials of drug candidates for the treatment of HCV infection often occur over more than one year, the information that we, our collaborators and our competitors disclose about these trials may be based on interim rather than final data that may involve interpretation difficulties and may in any event not accurately reflect final results.

If our competitors bring superior drugs to market or bring their drugs to market before we do, we may be unable to find a market for our drug candidates.

Any drug we develop may not be able to compete effectively with drugs that are currently on the market or new drugs that may be developed by others. There are many other companies developing drugs for the same indications that we are pursuing. In order to compete successfully in these areas, we must demonstrate improved safety, efficacy and ease of manufacturing and gain market acceptance over competing drugs that may receive regulatory approval before or after our drug candidates, and over those that currently are marketed. Many of our competitors, including major pharmaceutical companies such as Merck, Bristol-Myers Squibb, GlaxoSmithKline, Pfizer, Roche, Amgen, Novartis and Johnson & Johnson, possess substantially greater financial, technical and human resources than we possess. In addition, many of our competitors have significantly greater experience than we have in conducting nonclinical testing and human clinical trials of drug candidates, scaling up manufacturing operations and obtaining regulatory approvals of drugs and manufacturing facilities. Accordingly, our competitors may succeed in obtaining regulatory approval for drugs more rapidly than we do. If we obtain regulatory approval and launch commercial sales of our drug candidates, we also will compete with respect to manufacturing efficiency and sales and marketing capabilities, areas in which we currently have limited experience.

In particular, a significant number of companies are focused on developing treatments for genotype 1 HCV infection. In addition to the initial competition that we may face from Merck's boceprevir, we are aware of a number of companies that are developing new treatments for HCV infection including HCV protease inhibitors, HCV polymerase inhibitors, HCV NS5A inhibitors and advanced interferons. Although drug development is a lengthy process and involves a high degree of risk, at some point during the next several years one or more of these earlier-stage drug candidates may be approved by the FDA. As a result, the longer-term commercial prospects for telaprevir will depend on, among other factors:

- the efficacy, safety and other characteristics of telaprevir relative to future treatments for HCV infection;
- our ability to establish telaprevir as a significant component of any oral combination or shorter duration therapies that may be approved as a treatment for HCV infection; and
- the timing of marketing approvals for drugs being developed by our competitors, including in particular any other protease inhibitors, including Merck's boceprevir, and any oral combination or shorter duration therapies.

As a result, even if we are initially successful in commercializing telaprevir, it is possible that one or more competing therapies could be approved with a better safety and efficacy profile, which we believe could negatively impact telaprevir sales.

If physicians, patients and third-party payors do not accept our future drugs, we may be unable to generate significant revenues, if any.

Even if we obtain regulatory approval for our drug candidates, our approved drugs may not gain market acceptance among physicians and patients. We believe that effectively marketing telaprevir, if it is approved, and our other drug candidates, if any of them are approved, will require substantial efforts, both prior to launch and after approval. Physicians may elect not to prescribe our drugs, and patients may elect not to request or take them, for a variety of reasons including:

- lower demonstrated clinical safety and efficacy compared to other drugs;
- prevalence and severity of adverse side-effects;
- lack of cost-effectiveness;

- lack of reimbursement availability from third-party payors;
- a decision to wait for the approval of other therapies that have significant perceived advantages over our drug candidates;
- convenience and ease of administration;
- other potential advantages of alternative treatment methods; and
- ineffective marketing and distribution support.

If our approved drugs fail to achieve market acceptance, we will not be able to generate significant revenues.

If our processes and systems are not compliant with regulatory requirements, we could be subject to delays in submitting NDAs or restrictions on marketing of drugs after they have been approved.

We are developing drug candidates for regulatory approval for the first time since our inception, and have been implementing regulated processes and systems required to obtain and maintain regulatory approval for our drug candidates. Certain of these processes and systems for conducting clinical trials and manufacturing material were required to be compliant with regulatory requirements before we applied for regulatory approval for telaprevir. These processes and systems will be subject to continual review and periodic inspection by the FDA and other regulatory bodies. If compliance issues are identified at any point in the development and approval process, we may experience delays in filing for regulatory approval for our drug candidates, or delays in obtaining regulatory approval after filing. In addition, any later discovery of previously unknown problems or safety issues with approved drugs or manufacturing processes, or failure to comply with regulatory requirements, may result in restrictions on such drugs or manufacturing processes, withdrawal of drugs from the market, the imposition of civil or criminal penalties or a refusal by the FDA and/or other regulatory bodies to approve pending applications for marketing approval of new drugs or supplements to approved applications, any of which could have a material adverse effect on our business. In addition, we are a party to agreements that transfer responsibility for complying with specified regulatory requirements, such as filing and maintenance of marketing authorizations and safety reporting or compliance with manufacturing requirements, to our collaborators and third-party manufacturers. If our collaborators or third-party manufacturers do not fulfill these regulatory obligations, any drugs for which we or they obtain approval may be subject to later restrictions on manufacturing or sale, or may even risk withdrawal, which could have a material adverse effect on our business.

We depend on our collaborators to work with us to develop, manufacture and commercialize some of our drug candidates.

We have granted development and commercialization rights for telaprevir to Janssen (worldwide other than North America and Far East) and to Mitsubishi Tanabe (Far East). We expect to receive meaningful regulatory, technical, manufacturing and commercial contributions to the telaprevir program from Janssen and will be entitled to royalties from any sales of telaprevir, if approved, in Janssen's territories. The success of our telaprevir program is dependent upon the continued support that Janssen has agreed to provide, and Janssen has significant discretion in determining the efforts and resources that it will apply to the collaboration.

The risks that we face in connection with these existing and any future collaborations include the following:

- Our collaboration agreements are subject to termination under various circumstances, including, as in the case of our agreement with Janssen, termination without cause. Any such termination by Janssen could have a material adverse effect on our financial condition and/or delay the development and commercial sale of telaprevir in Janssen's territories.

- Our collaborators may change the focus of their development and commercialization efforts or may have insufficient resources to effectively develop our drug candidates. Pharmaceutical and biotechnology companies historically have re-evaluated their development and commercialization priorities following mergers and consolidations, which have been common in recent years in these industries. The ability of some of our drug candidates to reach their potential could be limited if collaborators decrease or fail to increase development or commercialization efforts related to those drug candidates.

- Any future collaboration agreements may have the effect of limiting the areas of research and development that we may pursue, either alone or in collaboration with third parties.

- Collaborators may develop and commercialize, either alone or with others, drugs that are similar to or competitive with the drugs or drug candidates that are the subject of their collaborations with us.

Janssen is seeking approval from the EMA to market telaprevir in the European Union. The regulatory process in the European Union is similar to the process in the United States, but typically takes longer to complete. If Janssen experiences material delays in obtaining marketing approval for telaprevir in its territories, we will not receive royalty revenues during the delay. If Janssen is unable to obtain approvals to market telaprevir in its territory, we will not receive royalty payments from telaprevir sales in Janssen's territories, which could materially harm our cash flows.

Our investment in the clinical development and manufacture of a commercial supply of telaprevir may not result in any benefit to us if telaprevir is not approved for commercial sale.

Telaprevir is the first drug candidate that we expect to commercialize in a major market. We are planning for and investing significant resources in order to seek marketing approval for telaprevir, to build our commercial supply inventories of drug product, and to complete our scale-up of sales and marketing capacity. Our costs to obtain a commercial supply of telaprevir have included approximately $63 million, $20 million and $17 million in 2010, 2009 and 2008, respectively. Our engagement in these resource-intensive activities puts significant investment at risk if we do not obtain regulatory approval and successfully commercialize telaprevir in North America. There is no assurance that our development of telaprevir will lead successfully to regulatory approval, or that obtaining regulatory approval will lead to commercial success of telaprevir. If telaprevir is not approved for commercial sale or if its development is delayed for any reason, our full investment in telaprevir may be at risk, we may face significant costs to dispose of unusable inventory, and our business and financial condition could be materially adversely affected.

We may need to raise additional capital that may not be available.

We expect to incur substantial expenses as we design and develop existing and future compounds, undertake clinical trials, seek regulatory approvals and build our drug supply, regulatory, development and commercial capabilities. We also expect to incur substantial administrative and commercialization expenses. As a result, we may raise additional capital beyond our current resources. We anticipate that we would finance any additional cash needs with some combination of:

- public offerings or private placements of our debt or equity securities, asset-backed borrowings or other methods of financing;

- cash received from existing and future collaborative agreements; and

- future product sales.

We believe that our current cash, cash equivalents and marketable securities will be sufficient to fund our operations for at least the next twelve months. We may, however, raise additional capital through public offerings or private placements of our debt or equity securities. Any such capital

transactions may or may not be similar to the transactions that we have completed in the past. Any debt financing may be on terms that, among other things, include conversion features that could result in dilution to our then-existing security holders and restrict our ability to pay interest and dividends—although we do not intend to pay dividends for the foreseeable future. Any equity financings would result in dilution to our then-existing security holders. If adequate funds are not available on acceptable terms, or at all, we may be required to curtail significantly or discontinue one or more of our research, drug discovery or development programs, including clinical trials, incur significant cash exit costs, or attempt to obtain funds through arrangements with collaborators or others that may require us to relinquish rights to certain of our technologies, drugs or drug candidates. Based on many factors, including general economic conditions, additional financing may not be available on acceptable terms, if at all.

We may not be successful in developing either of the HCV polymerase inhibitors we acquired in our acquisition of ViroChem and, as a result, we may not realize any benefits from this acquisition and could be subject to significant impairment charges in future periods.

In March 2009, we acquired ViroChem Pharma Inc., or ViroChem, for $100.0 million in cash and 10.7 million shares of our common stock. We acquired ViroChem primarily in order to secure rights to two HCV polymerase inhibitors, VX-222 and VX-759, as part of our strategy to pursue drug candidates that could potentially be developed in combination with telaprevir and/or our earlier- stage drug candidates. VX-222 and VX-759 were still in Phase 1 clinical development at the time of the acquisition and have only been evaluated in nonclinical studies and in a limited number of patients infected with HCV. While we believe the data from the clinical trials and nonclinical studies to date support the development of combination therapies, there are numerous reasons why we may not be able to successfully develop a combination therapy involving either VX-222 or VX-759, including:

- data from trials involving drug candidates evaluated separately may not predict possible outcomes, such as unforeseen drug interactions, from drug candidates dosed in combination, which could negatively impact the efficacy and safety profile of the combination product candidate;
- positive results in small clinical trials and nonclinical studies may not be predictive of results in clinical trials involving large numbers of patients; and
- favorable results of testing or earlier FDA or foreign regulatory approval of competitors' products.

There can be no assurance that we will be able to successfully develop either VX-222 or VX-759 alone or in combination with telaprevir or our other HCV protease inhibitors, and if we are not successful in developing VX-222 or VX-759, we may not realize any benefits from our acquisition of ViroChem.

At the time of acquisition, we allocated $525.9 million to intangible assets related to the in-process research and development associated with the ViroChem drug candidates. In the fourth quarter of 2009, we recorded expense of $7.2 million in connection with an impairment of the intangible assets related to VCH-286, a drug candidate for the treatment of HIV infection that we acquired from ViroChem. At December 31, 2010, our consolidated balance sheet included $518.7 million of intangible assets related to in-process research and development, approximately 80% of which related to VX-222 and approximately 20% of which related to VX-759. If the value of these drug candidates, and in particular VX-222, becomes impaired, we may incur significant impairment charges, including potentially the entire amount of the intangible assets reflected on our consolidated balance sheet associated with the drug candidate, in the period in which the impairment becomes known. An impairment could result from, among other things, unfavorable safety or efficacy results from clinical trials or nonclinical studies or competitive factors affecting the potential market for the drug candidate. VX-759, which is considered a backup compound to VX-222, could be impaired by data pertaining to the potential successful development of VX-222, which could result in a significant impairment charge

in the period in which that determination is made. If we incur a significant impairment charge in a future period related to the intangible assets acquired in the ViroChem transaction, the value of our common stock could decrease.

We rely on third parties to conduct our clinical trials, and those third parties may not perform satisfactorily, including failing to meet established deadlines for the completion of such trials.

We do not have the ability to independently conduct clinical trials for our drug candidates, and we rely on third parties such as contract research organizations to help manage our clinical trial process and on medical institutions and clinical investigators to enroll qualified patients and conduct our clinical trials. Our reliance on these third parties for clinical development activities reduces our control over these activities. Accordingly, these third-party contractors may not complete activities on schedule, or may not conduct our clinical trials in accordance with regulatory requirements or our trial design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be required to replace them. Although we believe that there are a number of other third-party contractors we could engage to continue these activities, it may result in a delay of the affected trial. If clinical trials are not conducted in accordance with our contractual expectations or regulatory requirements, action by regulatory authorities might significantly and adversely affect the conduct or progress of these trials or in specific circumstances might result in a requirement that a trial be redone. Accordingly, our efforts to obtain regulatory approvals for and commercialize our drug candidates could be delayed.

Issuances of additional shares of our common stock could cause the price of our common stock to decline.

As of December 31, 2010, we had 203.5 million shares of common stock issued and outstanding. As of December 31, 2010, we also had outstanding options to purchase 21.3 million shares of common stock with a weighted-average exercise price of $30.50 per share and 8.2 million shares of common stock issuable upon conversion of our outstanding convertible senior subordinated notes due 2015, or 2015 Notes, at a conversion price of approximately $48.83 per share. Outstanding vested options are likely to be exercised if the market price of our common stock exceeds the applicable exercise price. In addition, we may issue additional common stock or restricted securities in the future as part of our financing activities or business development activities and any such issuances may have a dilutive effect on existing shareholders. Sales of substantial amounts of our common stock in the open market, or the availability of such shares for sale, could adversely affect the price of our common stock. In addition, the issuance of restricted common stock or common stock upon exercise of any outstanding options would be dilutive, and may cause the market price for a share of our common stock to decline.

Outstanding indebtedness may make it more difficult to obtain additional financing or reduce our flexibility to act in our best interests.

We are obligated to repay an aggregate of $155.0 million for our secured notes due 2012, or the 2012 Notes, no later than October 31, 2012, and an aggregate of $400.0 million for our 2015 Notes no later than October 1, 2015. We also are obligated to make semi-annual interest payments on the outstanding principal amount of the 2015 Notes. We may issue additional convertible debt or incur other types of indebtedness in the future. The level of our indebtedness could affect us by:

- making it more difficult to obtain additional financing for working capital, capital expenditures, debt service requirements or other purposes;
- constraining our ability to react quickly in an unfavorable economic climate or to changes in our business or the pharmaceutical industry; or
- requiring the dedication of substantial cash to service the repayment of any outstanding debt, including periodic interest payments, thereby reducing the amount of cash available for other purposes.

If we acquire or license technologies, resources or drug candidates, we will incur a variety of costs and may never realize benefits from the transaction.

If appropriate opportunities become available, we might attempt to license or acquire technologies, resources and drugs or drug candidates, including potentially complimentary HCV therapies. Even if we complete a license or other transaction, we might never realize the anticipated benefits of the transaction or we may incur impairment charges related to assets acquired in any such transaction. Future licenses or acquisitions could result in potentially dilutive issuances of equity securities, the incurrence of debt, the creation of contingent liabilities, impairment expenses related to goodwill, and impairment or amortization expenses related to other intangible assets, which could harm our financial condition.

Our drug development efforts are data-driven and therefore potentially subject to abrupt changes in expected outcomes.

Small molecule drug discovery and development involve, initially, the identification of chemical compounds that may have promise as treatments for specific diseases. Once identified as drug candidates, compounds are subjected to years of testing in a laboratory setting, in animals and in humans. Our ultimate objective is to determine whether the drug candidates have physical characteristics, both intrinsically and in animal and human systems, and a toxicological profile, that are compatible with clinical and commercial success in the treatment of the disease being targeted. Throughout this process, experiments are conducted and data are gathered that could reinforce a decision to move to the next step in the investigation process for a particular drug candidate, could result in uncertainty over the proper course to pursue or could result in the termination of further drug development efforts with respect to the compound being evaluated. We monitor the results of our discovery research and our nonclinical studies and clinical trials and regularly evaluate and re-evaluate our portfolio investments with the objective of balancing risk and potential return in view of new data and scientific, business and commercial insights. This process can result in relatively abrupt changes in focus and priority as new information comes to light and we gain additional insights into ongoing programs and potential new programs.

We may not have the resources to develop and commercialize all the drug candidates for which we have rights, and we may not be able to attract collaborators for the development and commercialization of these drug candidates.

As part of our ongoing strategy, we may seek additional collaborative arrangements. We have a number of research programs and early-stage and mid-stage clinical development programs. Depending on how these programs progress, we may not have the funding and/or the personnel to continue the development and commercialization of all of these programs internally. We will need to expand our internal capabilities and/or enter into new arrangements with third parties to sell and market any of our drug candidates, other than telaprevir, if the are approval for sale. At any time, we may make the determination that in order to continue development of a drug candidate or program or successfully commercialize a future approved drug we need to identify a collaborator. Potentially, and depending on the circumstances, we may desire that a collaborator either agree to fund portions of a drug development program led by us, or agree to provide all the funding and directly lead the development and commercialization of a program. No assurance can be given that any efforts we make to seek additional collaborative arrangements will be successfully completed on a timely basis or at all. If we are unable to enter into acceptable collaborative relationships, one or more of our development programs could be delayed or terminated, and any future drug may not be commercially successful and the possibility of our receiving a return on our investment in the program could be impaired.

Risks associated with our international business relationships could materially adversely affect our business.

We have manufacturing, collaborative and clinical trial relationships, and we and our collaborators are seeking approval for our drug candidates, outside the United States. In addition, we expect that if telaprevir is approved for commercial sale, a significant portion of our commercial supply chain, including sourcing of raw materials and manufacturing, will be located in China, Japan and the European Union. We are planning to expand our operations in Canada in order to market telaprevir, if approved, in that country, and may seek to expand our commercial operations in Europe in order to market VX-770 internationally, if approved. Consequently, we are, and will continue to be, subject to risks related to operating in foreign countries. Risks associated with conducting operations in foreign countries include:

- differing regulatory requirements for drug approvals in foreign countries;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses or reduced revenues, and other obligations incident to doing business or operating a subsidiary in another country;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism.

These and other risks associated with our international operations could materially adversely affect our business.

If we fail to expand our human resources, and manage our growth effectively, our business may suffer.

We expect we may require significant additional investment in personnel, management systems and resources. Recently we have built out the commercial organization that will be responsible for the commercial launch of telaprevir in the United States, if it receives marketing approval. The number of our employees increased by 18% in 2010 and 6% in 2009, and we expect to experience additional growth in 2011. Because our drug discovery and development activities are highly technical in nature, we require the services of highly qualified and trained scientists who have the skills necessary to conduct these activities. In addition, we need to attract and retain employees with experience in these fields. We face intense competition for our personnel from our competitors, our collaborators and other companies throughout our industry. Moreover, the growth of local biotechnology companies and the expansion of major pharmaceutical companies into the Boston area have 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 to these areas. Our ability to commercialize our drug candidates, and achieve our research and development objectives, 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 hire qualified personnel or manage our growth effectively, there could be a material adverse effect on our business.

The loss of the services of key employees or the failure to effectively integrate key employees could negatively impact our business and future growth.

Our future success will depend in large part on our ability to retain the services of our key scientific and management personnel and to integrate new scientific and management personnel into our business. As we expand our capabilities in anticipation of the possible launch of commercial products, a loss of key personnel or a failure to properly integrate new personnel could be disruptive. We have entered into employment agreements with some individuals and provide compensation-related benefits to all of our key employees that vest over time and therefore induce them to remain with us. However, the employment agreements can be terminated by the employee on relatively short notice. The value to employees of stock-related benefits that vest over time—such as options and restricted stock—will be significantly affected by movements in our stock price that we can not control, and may at any point in time be insufficient to counteract more lucrative offers from other companies. A failure to retain, as well as hire, train and effectively integrate into our organization a sufficient number of qualified scientists, professionals, sales personnel and senior management would negatively affect our business and our ability to grow our business.

If our patents do not protect our drugs, or our drugs infringe third-party patents, we could be subject to litigation and substantial liabilities.

We have numerous issued patents and 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 drugs, their uses and our processes, to preserve our trade secrets and to operate without infringing the proprietary rights of third parties. In particular, we believe that composition-of-matter claims are generally the most significant patent claims for companies in our segment of the pharmaceutical industry that focus on small molecule drug candidates that are new chemical compounds. While we have patents or patent applications with composition-of-matter claims for each of our more advanced clinical drug candidates, only a portion of these patents have been granted at this time. We can not be certain that any patents will issue from 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 pharmaceutical 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 similar drugs will be limited. Furthermore, our activities may infringe the claims of patents held by third parties. Defense and prosecution of infringement or other intellectual property claims, as well as participation in other inter-party proceedings, can be expensive and time-consuming, regardless of whether or not 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 drugs, any of which outcomes could have a material adverse effect on our business.

Our business has a substantial risk of product liability claims. If we are unable to obtain appropriate levels of insurance, a product liability claim could adversely affect our business.

Our business exposes us to significant potential product liability risks that are inherent in the development, clinical testing, manufacturing and sales and marketing of human therapeutic products. We have clinical trial insurance and will seek to obtain product liability insurance prior to the sales and marketing of any of our drug candidates. However, our insurance may not provide adequate coverage against potential liabilities. Furthermore, clinical trial and product liability insurance is becoming

increasingly expensive. As a result, we may be unable to maintain current amounts of insurance coverage or obtain additional or sufficient insurance at a reasonable cost to protect against losses that could have a material adverse effect on us. If a claim is brought against us, we might be required to pay legal and other expenses to defend the claim, as well as uncovered damages awards resulting from a claim brought successfully against us. Furthermore, whether or not we are ultimately successful in defending any such claims, we might be required to direct significant financial and managerial resources to such defense, and adverse publicity is likely to result.

If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.

Our research and development efforts involve the controlled use of hazardous materials, chemicals and various radioactive compounds. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials can not be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We also are subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials. Although we maintain workers' compensation insurance to cover us for costs we may incur due to injuries to our employees resulting from the use of these materials, this insurance may not provide adequate coverage against potential liabilities. Due to the small amount of hazardous materials that we generate, we have determined that the cost to secure insurance coverage for environmental liability and toxic tort claims far exceeds the benefits. Accordingly, we do not maintain any insurance to cover pollution conditions or other extraordinary or unanticipated events relating to our use and disposal of hazardous materials. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations.

We have adopted anti-takeover provisions and are subject to Massachusetts corporate laws that may frustrate any attempt to remove or replace our current management or effectuate a business combination involving Vertex.

Our corporate charter and by-law provisions, Massachusetts state laws and our shareholder rights plan may discourage certain types of transactions involving an actual or potential change of control of Vertex that might be beneficial to us or our security holders. 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 shareholders, and certain provisions of our by-laws may be amended only with an 80% shareholder vote. Pursuant to our shareholder 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 shareholder 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. Massachusetts state law prohibits us from engaging in specified business combinations, unless the combination is approved or consummated in a prescribed manner, and prohibits voting by any shareholder who acquires 20% or more of our voting stock without shareholder approval. 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 ours are highly volatile. From January 1, 2009 to December 31, 2010, our common stock traded between $25.94 and $44.24 per share. 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 FDA actions with respect to regulatory filings for our drug candidates or those of our competitors or of results of clinical trials or nonclinical studies relating to our drug candidates or those of our competitors;
- announcements of financial results and other operating performance measures, including, if we obtain approval for telaprevir, product revenues during the initial period after telaprevir's commercial launch, or capital structuring or financing activities;
- technological innovations or the introduction of new drugs by our competitors;
- government regulatory action;
- public concern as to the safety of drugs 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;
- developments relating specifically to other companies and market conditions for pharmaceutical and biotechnology stocks or stocks in general; and
- general worldwide or national economic, political and capital market conditions.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K and, in particular, the description of our Business set forth in Item 1, the Risk Factors set forth in this Item 1A and our Management's Discussion and Analysis of Financial Condition and Results of Operations set forth in Item 7 contain or incorporate a number of forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding:

- our expectations regarding clinical trials, development timelines and regulatory authority filings and submissions for telaprevir, VX-770, VX-222, VX-809, VX-509, VX-765, including our expectations regarding regulatory authorities' timelines for review of our NDA submission for telaprevir in the United States, our New Drug Submission for telaprevir in Canada, and Janssen's MAA for telaprevir in the European Union, and the possibility that we could submit an NDA and an MAA for VX-770 in the second half of 2011;
- our belief that if we are successful in obtaining approval for telaprevir by the May 23, 2011 target date for the FDA to complete its review, we would be able to begin marketing telaprevir in the United States in mid-2011;
- our statements regarding the possibility that could begin generating earnings as a cashflow positive company in 2012;
- our ability to successfully market telaprevir and VX-770 or any of our other drug candidates if we are able to obtain regulatory approval;

- our expectations regarding the timing and structure of clinical trials of our drug candidates, including telaprevir, VX-770, VX-222, VX-509 and VX-765 and combinations of telaprevir with VX-222 and VX-770 with VX-809, and the timing of our receipt of data from our VX-770 registration program and of data from our other clinical trials;

- expectations regarding the amount of, timing of and trends with respect to our revenues, costs and expenses and other gains and losses, including those related to potential product revenues and royalty revenues from sales of telaprevir, to potential milestone payments from Janssen, to the intangible assets associated with the ViroChem acquisition and to the liabilities we recorded in connection with the September 2009 financial transactions;

- the data that will be generated by ongoing and planned clinical trials and the ability to use that data to support regulatory filings, including potential applications for marketing approval for VX-770;

- our beliefs regarding the support provided by clinical trials and preclinical and nonclinical studies of our drug candidates for further investigation, clinical trials or potential use as a treatment;

- the focus of our drug development efforts and our financial and management resources and our plan to continue investing in our research and development programs and to develop and commercialize selected drug candidates that emerge from those programs, alone or with third-party collaborators;

- the establishment, development and maintenance of collaborative relationships;

- potential business development activities;

- our ability to use our research programs to identify and develop new drug candidates to address serious diseases and significant unmet medical needs;

- statements regarding the letter of intent that we entered into in January 2011 with respect to the potential lease of a facility to be built in Boston, Massachusetts;

- our estimates regarding obligations associated with a lease of a facility in Kendall Square, Cambridge, Massachusetts; and

- our liquidity and our expectations regarding the possibility of raising additional capital.

Any or all of our forward-looking statements in this Annual Report on Form 10-K 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 this Annual Report on Form 10-K will be important in determining future results. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially from expected results. We also provide a cautionary discussion of risks and uncertainties under "Risk Factors" above in this Item 1A. These are factors and uncertainties that we think could cause our actual results to differ materially from expected results. Other factors and uncertainties besides those listed there could also adversely affect us.

Without limiting the foregoing, the words "believes," "anticipates," "plans," "intends," "expects" and similar expressions are intended to identify forward-looking statements. There are a number of factors and uncertainties that could cause actual events or results to differ materially from those indicated by such forward-looking statements, many of which are beyond our control, including the factors and uncertainties set forth under "Risk Factors" above in this Item 1A. In addition, the forward-looking statements contained herein represent our estimate only as of the date of this filing and should not be relied upon as representing our estimate as of any subsequent date. While we may elect to update these forward-looking statements at some point in the future, we specifically disclaim

any obligation to do so to reflect actual results, changes in assumptions or changes in other factors affecting such forward-looking statements.

ITEM 1B. UNRESOLVED STAFF COMMENTS

We did not receive any written comments from the Securities and Exchange Commission prior to the date 180 days before the end of the fiscal year ended December 31, 2010 regarding our filings under the Securities Exchange Act of 1934, as amended, that have not been resolved.

ITEM 2. PROPERTIES

We lease an aggregate of approximately 1,000,000 square feet of laboratory and office space in facilities located in Cambridge, Massachusetts, San Diego, California, Washington, DC, Coralville, Iowa, Montreal, Canada, and the United Kingdom. We believe our facilities are adequate for our current needs.

Cambridge, Massachusetts

We lease an aggregate of 815,000 square feet of space in ten facilities situated in close proximity to our corporate headquarters located at 130 Waverly Street in Cambridge, Massachusetts. We lease approximately 100,000 square feet of laboratory and office space in our 130 Waverly Street corporate headquarters and approximately 192,000 square feet of laboratory and office space at 200 Sidney Street, located adjacent to our corporate headquarters. The 130 Waverly Street and 200 Sidney Street leases expire on December 31, 2015, with two options to extend for additional consecutive five-year terms, and an option to terminate the lease in December 2013, subject to certain advance notice provisions. The lease for 21,000 square feet of office space at 21 Erie Street, also located adjacent to our corporate headquarters, expires in May 2012, with an option to extend for two additional consecutive five-year terms. We sublease approximately 145,000 square feet at 88 Sidney Street, Cambridge, Massachusetts, as subtenant to Alkermes, Inc. who is the prime tenant in the building. The sublease expires in June 2012 with an option to extend through 2014.

The lease for our Kendall Square, Cambridge, Massachusetts facility will expire in 2018. We have the option to extend this lease for two consecutive ten-year terms. We have subleased approximately 145,000 square feet of the Kendall Square facility, and are using the remaining square feet of space leased in the facility for our research operations. The subleases are for terms ending in 2012 and 2015 with one sublease having an extension option to 2018.

We are planning to consolidate our operations in Massachusetts so that they will be located at a single location. We have not yet, however, entered into a binding agreement with respect to this or any other new facility and intend that material commitments with respect to a new facility will be contingent on obtaining approval to market telaprevir in the United States. In January 2011, we signed a letter of intent with respect to the potential lease of a facility to be built in Boston, Massachusetts. This letter of intent contemplates the lease of approximately 1,100,000 square feet of office and laboratory space for a period of 15 years commencing in late 2013.

San Diego, California

We lease approximately 81,000 square feet of laboratory and office space in San Diego, California. The lease for this space will expire on September 30, 2013. We have the option to extend this lease for one additional term of five years.

United Kingdom

We lease approximately 22,000 square feet of laboratory and office space in Milton Park, Abingdon, England, for our United Kingdom business and research and development activities, under a lease expiring in 2013. We also lease an additional 41,000 square feet of laboratory and office space in Milton Park under a lease with a term that expires in 2024. This lease has certain termination provisions in 2014 and 2019.

ITEM 3. LEGAL PROCEEDINGS

We are not a party to any material legal proceedings. We are not a party to any litigation in any court with any governmental authority, and management is not aware of any contemplated proceeding by any governmental authority against us.

ITEM 4. REMOVED AND RESERVED

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is traded on The NASDAQ Global Select Market under the symbol "VRTX." The following table sets forth for the periods indicated the high and low sale prices per share of our common stock as reported by NASDAQ:

Year Ended December 31, 2010:	High	Low
First quarter	$ 44.24	$ 36.15
Second quarter	41.62	32.41
Third quarter	37.95	31.25
Fourth quarter	38.70	32.08

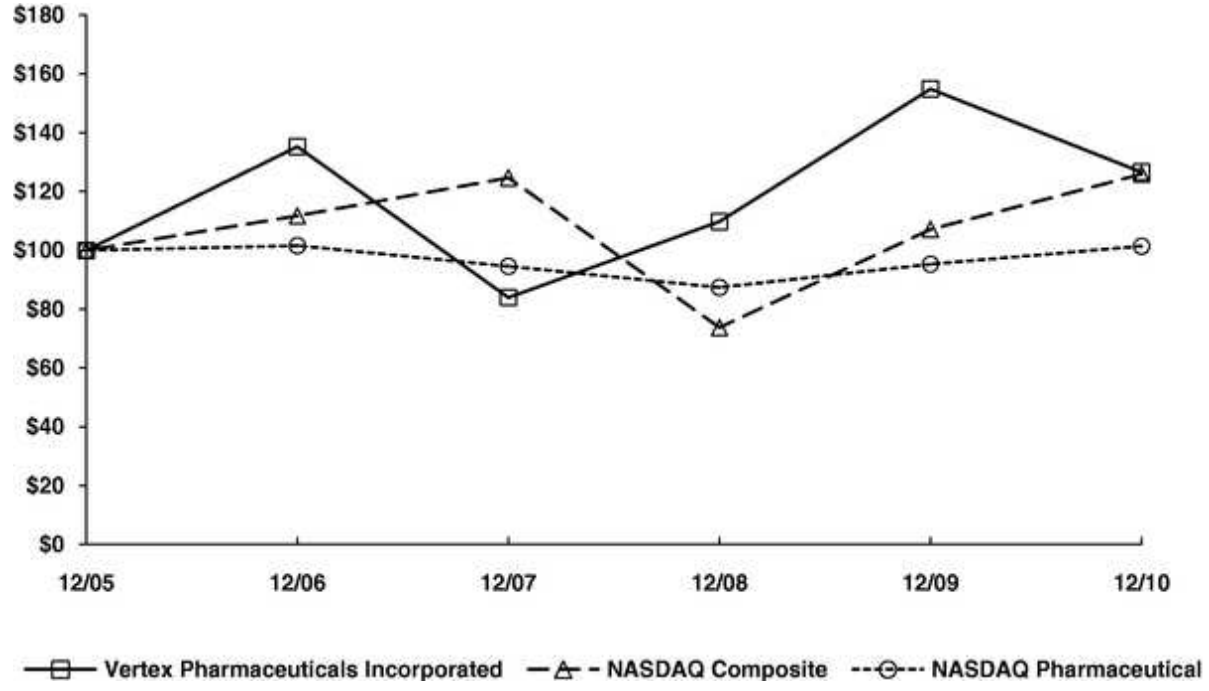
Year Ended December 31, 2009:		
First quarter	$ 35.97	$ 26.67
Second quarter	36.30	25.94
Third quarter	38.50	31.85
Fourth quarter	44.04	31.83

Stockholders

As of February 9, 2011, there were 2,067 holders of record of our common stock.

Performance Graph

CUMULATIVE TOTAL RETURN
Based on Initial Investment of $100 on December 31, 2005
with dividends reinvested (fiscal years ended December 31)



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. Restrictions in the credit agreement we entered into in January 2011 restrict our ability to declare or pay dividends in certain circumstances.

Issuer Repurchases of Equity Securities

The table set forth below shows all repurchases of securities by us during the three months ended December 31, 2010:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet be Purchased Under the Plans or Programs
Oct. 1, 2010 to Oct. 31, 2010	6,866	$ 0.01	—	—
Nov. 1, 2010 to Nov. 30, 2010	4,221	$ 0.01	—	—
Dec. 1, 2010 to Dec. 31, 2010	6,436	$ 0.01	—	—

The repurchases were made under the terms of our 2006 Stock and Option Plan. Under this plan, we may award shares of restricted stock to our employees and consultants that typically are subject to a lapsing right of repurchase by us. We may exercise this right of repurchase in the event that a restricted stock recipient's service to us is terminated. If we exercise this right, we are required to repay the purchase price paid by or on behalf of the recipient for the repurchased restricted shares, which typically is the par value per share of $0.01. Repurchased shares returned to the 2006 Stock and Option Plan are available for future awards under the terms of that plan.

ITEM 6. SELECTED FINANCIAL DATA

The following unaudited selected consolidated financial data are derived from our audited consolidated financial statements. These data should be read in conjunction with our audited consolidated financial statements and related notes that are included elsewhere in this Annual Report on Form 10-K and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 below.

	Year Ended December 31,				
	2010	2009	2008	2007	2006
	(in thousands, except per share amounts)				
Consolidated Statements of Operations Data:					
Revenues:					
Royalty revenues	$ 30,244	$ 28,320	$ 37,483	$ 47,973	$ 41,208
Collaborative revenues	113,126	73,569	138,021	151,039	175,148
Total revenues	143,370	101,889	175,504	199,012	216,356
Costs and expenses:					
Royalty expenses	12,730	14,202	15,686	13,904	12,170
Research and development expenses	637,416	550,274	516,912	519,227	379,715
Sales, general and administrative expenses	187,800	130,192	101,290	78,554	49,858
Restructuring expense	1,501	6,240	4,324	7,119	3,651
Intangible asset impairment charges(1)	—	7,200	—	—	—
Acquisition-related expenses(1)	—	7,793	—	—	—
Total costs and expenses	839,447	715,901	638,212	618,804	445,394
Loss from operations	(696,077)	(614,012)	(462,708)	(419,792)	(229,038)
Interest income/(expense), net	(17,320)	(8,182)	2,857	28,513	15,069
Change in fair value of derivative instruments(2)	(41,229)	(1,847)	—	—	—
Other gain/(losses)(3)(4)	—	(18,137)	—	—	7,078
Net loss(3)	$ (754,626)	$ (642,178)	$ (459,851)	$ (391,279)	$ (206,891)
Net loss per share, basic and diluted(3)	$ (3.77)	$ (3.71)	$ (3.27)	$ (3.03)	$ (1.83)
Weighted-average shares, basic and diluted	200,402	173,259	140,556	128,986	113,221

	December 31,				
	2010	2009	2008	2007	2006
	(in thousands)				
Consolidated Balance Sheets Data:					
Cash, cash equivalents and marketable securities	$ 1,031,411	$ 1,284,913	$ 832,101	$ 467,796	$ 761,752
Intangible assets(1)	518,700	518,700	—	—	—
Goodwill(1)	26,102	26,102	—	—	—
Total assets	$ 1,725,446	$ 1,955,488	$ 980,479	$ 601,477	$ 921,579
Total current liabilities	$ 474,783	$ 284,883	$ 216,564	$ 199,279	$ 251,014
Convertible senior subordinated notes (due 2013), net of current portion	—	—	287,500	—	—
Convertible senior subordinated notes (due 2015)	400,000	—	—	—	—
Secured notes (due 2012), net of current portion(2)	—	121,765	—	—	—
Liability related to sale of potential future milestone payments, net of current portion(2)	—	38,207	—	—	—
Other long term-debt, net of current portion	—	—	—	—	19,997
Deferred tax liability(1)	160,278	160,278	—	—	—
Other liabilities, net of current portion	186,412	254,009	237,541	130,903	144,633
Stockholders' equity	503,973	1,096,346	238,874	271,295	505,935
Total liabilities and stockholders' equity	$ 1,725,446	$ 1,955,488	$ 980,479	$ 601,477	$ 921,579

(1) The intangible asset impairment charges, the acquisition-related expenses, the intangible assets, the goodwill and the deferred tax liability reflected in the selected financial data relate to our acquisition of ViroChem in 2009. See Note P to our consolidated financial statements included in this Annual Report on Form 10-K.

(2) The change in fair value of derivative instruments, secured notes (due 2012) and liability related to sale of potential future milestone payments reflected in the selected financial data relate to two financial transactions that we entered into in September 2009. As of December 31, 2010, the secured notes (due 2012) and the liability related to sale of potential future milestone payments are included in total current liabilities. See Note Q to our consolidated financial statements included in this Annual Report on Form 10-K.

(3) We recorded a $1.0 million benefit in 2006 due to the cumulative effect of estimating forfeitures of equity awards on the grant date rather than recording them as they occur, which decreased the basic and diluted net loss per common share for 2006 by $0.01.

(4) Other gain/(losses) includes losses on exchanges of convertible notes of $18.1 million in 2009 and of $5.2 million in 2006 and a realized gain on sale of investment of $11.2 million in 2006.

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

Overview

We are in the business of discovering, developing and commercializing small molecule drugs for the treatment of serious diseases. In November 2010, we submitted a new drug application, or NDA, requesting approval to market telaprevir in the United States for the treatment of patients with chronic hepatitis C virus, or HCV, infection. We expect to obtain approval for and initiate sales of telaprevir in the United States in 2011. We are pursuing a number of other clinical development programs, including a registration program for VX-770, the lead drug candidate in our cystic fibrosis, or CF, program. We plan to continue investing in our research and development programs and to develop and commercialize selected drug candidates that emerge from those programs, alone or with third-party collaborators.

Business Focus

We are focused on obtaining approval for and commercializing telaprevir in the United States, while continuing to advance our other drug candidates and to invest in research programs. In January 2011, we received priority review designation for the telaprevir NDA from the United States Food and Drug Administration, or FDA, which establishes an anticipated timeframe for the FDA to review the telaprevir NDA that ends on May 23, 2011. The FDA's regulatory review process for the telaprevir NDA will include, among other things, a detailed review by the FDA of the data and information contained in the NDA, meetings and frequent communications between us and representatives of the FDA, and FDA inspections, including inspections of clinical trial sites and third-party facilities used to manufacture telaprevir. If applicable regulatory criteria are not satisfied, the FDA could refuse to approve or delay the approval of the telaprevir NDA. If we are successful in obtaining approval for telaprevir within the anticipated timeframe, we expect to begin marketing telaprevir in the United States in mid-2011. Our collaborator, Janssen Pharmaceutica, N.V., or Janssen, is responsible for the commercialization of telaprevir in its territories, including the European Union, and is obligated to pay us royalties on its net sales of telaprevir. Janssen obtained accelerated assessment for its marketing authorization application, or MAA, for telaprevir from the European Medicines Agency, or EMA, in December 2010 and is seeking to obtain approval for and launch telaprevir in the European Union in the second half of 2011.

In order to execute our business plan and achieve profitability, we need to obtain approval for telaprevir in a timely manner and successfully commercialize telaprevir in the United States. We expect that we will incur substantial expenses in order to seek approval for and commercialize telaprevir, while at the same time continuing to pursue diversified research and development efforts for our other drug candidates and to expand our organization. We may seek to borrow working capital if such financing is available to us. Although we have no plans to do so in the near term, we may raise additional capital from public offerings or private placements of our securities, from new collaborative agreements or through other methods of financing, particularly if approval of telaprevir is delayed or commercialization takes longer than expected. We cannot be sure that financing opportunities will be available on acceptable terms, if at all. If adequate funds are not available on acceptable terms, we may be required to significantly curtail or discontinue one or more of our research or development programs, including clinical trials, incur significant cash exit costs, or attempt to obtain funds through arrangements with collaborators or others that may require us to relinquish rights to certain of our drug candidates.

Successful commercialization of telaprevir if it is approved will require: effective marketing, distribution and pricing strategies; infrastructure to support commercial sales; appropriate and sustained levels of drug product inventory; company-wide processes and systems to support compliance with

applicable laws and regulations and post-marketing safety evaluations; and an effective sales force and managed markets organization to promote telaprevir to health care providers and payors. For longer-term success we also will need to ensure that a significant portion of the HCV-infected population that is currently undiagnosed is diagnosed and treated. In 2010, we significantly expanded our commercial organization in the United States, hiring an experienced management team and more than 100 field-based employees, preparing our initial marketing strategies, and designing and implementing the infrastructure required to support commercial sales in the United States. We expect to complete these activities in the first half of 2011 and believe that our commercial organization will be prepared for the potential mid-2011 commercial launch of telaprevir in the United States. We also are seeking to obtain Canadian regulatory approval for telaprevir in the second half of 2011 and have started building the commercial infrastructure that will be required to market telaprevir in Canada. We expect that the market for the treatment of patients with HCV infection will be highly competitive and may initially include a HCV protease inhibitor that is being evaluated by the FDA concurrently with telaprevir.

The most advanced of our other drug candidates is VX-770, which we are evaluating in a fully-enrolled registration program that focuses on patients with CF who have the G551D mutation in the gene responsible for CF. We expect that we will receive data from the primary Phase 3 clinical trial in the VX-770 registration program in the first quarter of 2011. If we believe the results from the Phase 3 clinical trials for VX-770 support registration, we could submit an NDA and an MAA for VX-770 in the second half of 2011. We expect that if we seek regulatory approval for VX-770, the submissions of the NDA and MAA for VX-770 will involve a complex and resource intensive process that could be delayed. Concurrently with preparing the NDA submission for VX-770, we would seek to establish a commercial infrastructure in Europe in order to prepare for potential commercial sales of VX-770 in international markets.

We have several ongoing Phase 2a clinical trials designed to obtain additional information regarding earlier-stage drug candidates intended for the treatment of HCV infection, CF, rheumatoid arthritis and epilepsy. We expect to receive data from all of these clinical trials in 2011, which should help us determine, which, if any, of these programs deserve further investment. We believe that our longer-term success will depend on our ability to continue to generate and develop innovative compounds. To that end, we expect to continue to focus on research programs directed toward the identification of new drug candidates for the treatment of serious diseases.

Drug Development and Commercialization

Discovery and development of a new pharmaceutical product is a difficult and lengthy process that requires significant financial resources along with extensive technical and regulatory expertise and can take 10 to 15 years or more. Throughout this entire process, potential drug candidates are subjected to rigorous evaluation, driven in part by stringent regulatory considerations, designed to generate information concerning efficacy, side-effects, proper dosage levels and a variety of other physical and chemical characteristics that are important in determining whether a drug candidate should be approved for marketing as a pharmaceutical product. Most chemical compounds that are investigated as potential drug candidates never progress into formal development, and most drug candidates that do advance into formal development never generate data that support marketing approval. Because our investments are subject to considerable risks, we closely monitor the results of our discovery research, clinical trials and nonclinical studies, and frequently evaluate our drug development programs in light of new data and scientific, business and commercial insights, with the objective of balancing risk and potential. This process can result in relatively abrupt changes in focus and priority as new information becomes available and we gain additional understanding of our ongoing programs and potential new programs.

If we complete a registration program for a drug candidate and believe the data support approval of the drug candidate, we generally would submit an NDA to the FDA requesting approval to market the drug candidate in the United States. We or our collaborators also generally would seek analogous approvals from comparable regulatory authorities in foreign jurisdictions. To obtain approval, we must, among other things, demonstrate with evidence gathered in nonclinical studies and well-controlled clinical trials that the drug candidate is safe and effective for the disease it is intended to treat and that the manufacturing facilities, processes and controls for the manufacture of the drug candidate are adequate. The FDA and foreign regulatory authorities will have substantial discretion in deciding whether or not each of our drug candidates should be granted approval based on the benefits and risks of the drug candidate in the treatment of a particular disease. Their review of our NDA or a foreign regulatory filing could delay, limit or prevent regulatory approval of the drug candidate. If regulatory delays are significant or regulatory approval is limited or denied altogether, our financial results and the commercial prospects for the drug candidate involved will be harmed.

We believe that by focusing on serious diseases and innovative drugs that have the potential to provide significant advantages over existing therapies, we can increase the likelihood that our drug candidates, if approved, will be commercially successful. In addition, we believe that telaprevir will have a commercially competitive profile and that there is a significant group of patients with genotype 1 HCV infection that may be willing to seek treatment with a telaprevir-based treatment regimen. However, we cannot accurately predict the product revenues that will be generated if telaprevir receives regulatory approval, and we may need to adjust our business plan as we obtain additional information regarding our actual product revenues. Even drugs that achieve initial market acceptance may then be rendered obsolete or noncompetitive by the introduction of additional therapies, expiration of intellectual property protections or introduction of generic competition. Approved drugs continue to be subject, among other things, to numerous regulatory risks, post-approval safety monitoring and risks related to supply chain disruptions.

We will require a supply of telaprevir for sale in North America and a supply of VX-770 for sale worldwide if we are successful in obtaining marketing approval for either or both of these drug candidates. We rely on an international network of third parties to manufacture and distribute our drug candidates for clinical trials, and we expect that we will continue to rely on third parties for the foreseeable future to meet our commercial supply needs for any of our drug candidates that are approved for sale. Third-party contract manufacturers, including some in China, supply us with raw materials, and contract manufacturers in the European Union and the United States convert these raw materials into drug substance, and convert the drug substance into final dosage form. Establishing and managing this global supply chain requires a significant financial commitment and the creation and maintenance of numerous third-party relationships. Although we attempt to effectively manage the business relationships with companies in our supply chain, we do not have complete control over their activities.

We have not marketed pharmaceutical products before, and prior to 2010 we had a relatively small commercial organization. As a result, in the past many of the regulations related to the marketing of pharmaceutical products have had limited applicability to our business. As we expand our commercial organization and prepare for the potential commercial launch of telaprevir, we have focused on designing a comprehensive compliance program to actively identify, prevent and mitigate risk through the implementation of compliance policies and systems and by promoting a culture of compliance. Among other laws, regulations and standards, we are subject to various federal and state laws pertaining to health care fraud and abuse, including anti-kickback and false claims statutes. Anti-kickback laws make it illegal for a prescription drug manufacturer to solicit, offer, receive, or pay any remuneration in exchange for, or to induce, the referral of business, including the purchase or prescription of a particular drug. False claims laws prohibit anyone from presenting for payment to third-party payors, including Medicare and Medicaid, claims for reimbursed drugs or services that are

false or fraudulent, claims for items or services not provided as claimed, or claims for medically unnecessary items or services. In 2011, we expect to devote substantial management and financial resources to complete the implementation of these compliance policies in preparation of the potential commercial launch of telaprevir.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of these financial statements requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of revenues and expenses during the reported periods. We monitor and analyze changes in facts and circumstances that might have a material effect on our estimates and assumptions. Changes in estimates are reflected in reported results for the period in which they become known. We base our estimates on historical experience and various other assumptions, including in certain circumstances future projections, 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.

We believe that our application of the following accounting policies, each of which requires significant judgments and estimates on the part of management, are the most critical to aid in fully understanding and evaluating our reported financial results: derivative instruments and embedded derivatives; revenue recognition; research and development expenses; commercial supplies; business combinations; restructuring expense; and stock-based compensation expense. Our accounting polices, including the ones discussed below, are more fully described in the Notes to our consolidated financial statements, including Note B "Accounting Policies," included in this Annual Report on Form 10-K.

Derivative Instruments and Embedded Derivatives—September 2009 Financial Transactions

Expenses related to two financial transactions that we entered into in September 2009 resulted in significant non-cash expenses in 2010. The two financial transactions relate to $100.0 million of potential milestone payments payable to us by Janssen in connection with the regulatory filing with and approval of telaprevir by the EMA and $150.0 million of potential milestone payments payable to us by Janssen in connection with the launch of telaprevir in the European Union. In the first financial transaction, we issued secured notes due 2012, or 2012 Notes, which have a face value of $155.0 million and do not carry an explicit interest rate, for $122.2 million in cash. The 2012 Notes are payable in October 2012 and are secured by $155.0 million of potential future telaprevir milestone payments. In the second transaction, we sold $95.0 million in additional potential future telaprevir milestone payments for a cash payment of $32.8 million. The 2012 Notes contain an embedded derivative related to their potential early repayment or redemption. The separate sale of the potential $95.0 million in future milestone payments is accounted for as a free-standing derivative instrument.

In order to account for the 2012 Notes and the sale of the rights to the potential future milestone payments, we estimate the fair value of the derivative embedded in the 2012 Notes and of the free-standing derivative associated with the sale of $95.0 million in potential future milestone payments. The models we use to estimate these fair values require, among other things, estimates regarding the timing and probability of achieving the milestone events and the appropriate discount rates. As we and Janssen have obtained additional data from the telaprevir registration program and have completed various activities necessary to achieve the potential milestone events, we have updated these assumptions to reflect the increasing probability of achieving these milestone events and the expected timing of such events. These updates have resulted in changes in the estimated fair value of the embedded and free-standing derivative and corresponding expenses or gains in each quarterly period.

In 2010, we recorded $56.3 million in expenses related to the September 2009 financial transactions primarily due to increases in the fair value of the free-standing derivative that resulted from the positive results we obtained from the telaprevir registration program in the second and third quarters of 2010 and Janssen's receipt of accelerated assessment from the EMA for the telaprevir MAA in the fourth quarter of 2010. In 2009, we recorded $5.3 million in expense related to the September 2009 financial transactions, primarily in interest expense. If Janssen obtains approval for and launches telaprevir in the European Union, we expect that in future periods we will incur $35.2 million in additional non-cash expenses related to the two September 2009 financial transactions. However, the timing of these expenses or any gains will depend on a number of factors, including factors related to the probability and timing of achieving the relevant milestone events and to applicable discount rates, and could result in material expenses or gains in any quarterly period.

Revenue Recognition

Our revenues are generated primarily through collaborative research, development and/or commercialization agreements. The terms of these agreements typically include payment to us of one or more of the following: nonrefundable, up-front license fees; milestone payments; and royalties on product sales. In May 2008, we sold our rights to receive future royalties from our HIV assets and have been recognizing revenues in connection with that transaction since the date of the sale.

If we are successful in obtaining approval for telaprevir in the United States, we expect to begin recognizing product revenues on sales of telaprevir. Recognizing product revenues will require us to make significant assumptions and estimates regarding, among other things, the mix of private and governmental payors for telaprevir and chargebacks, contractual discounts, rebates, returns and trade and distribution fees that we expect to offer to certain private institutions and organizations, various government agencies and/or patients needing financial assistance.

Up-front License Fees

We recognize revenues from nonrefundable, up-front license fees related to collaboration agreements, including the $165.0 million we received from Janssen in 2006 and the $105.0 million we received from Mitsubishi Tanabe in 2009, on a straight-line basis over the contracted or estimated period of performance. The period of performance over which the revenues are recognized is typically the period over which the research and/or development is expected to occur or manufacturing services are expected to be provided. As a result, we often are required to make estimates regarding drug development and commercialization timelines for drug candidates being developed pursuant to a collaboration agreement. Because the drug development process is lengthy and our collaboration agreements typically cover activities over several years, this approach often has resulted in the deferral of significant amounts of revenue into future periods. In addition, we periodically evaluate our estimates in light of changes in the development plans for our drug candidates. Because of the many risks and uncertainties associated with the development of drug candidates, our estimates regarding the period of performance have changed in the past and may change in the future. Our estimates regarding the period of performance under the Janssen collaboration agreement were adjusted in 2007, 2009 and 2010, as a result of changes in the global development plan for telaprevir, which contemplates the conduct of certain post-approval development activities. These adjustments were made on a prospective basis beginning in the periods in which the changes were identified. These adjustments resulted in a decrease in the amount of revenues we recognized from the Janssen collaboration by $2.6 million per quarter for the first adjustment, by $1.1 million per quarter for the second adjustment and by $1.4 million per quarter for the third adjustment. Any future adjustment in our estimates of the period of performance under any of our collaborations could result in substantial changes to the period over which the revenues from an up-front license fee related to that collaboration are recognized. For example, if we adjust our estimates as of January 1, 2011 to increase the period of performance under

the Janssen agreement by one year, it would result in a decrease in the amount of deferred revenues we recognize from our Janssen collaboration of $0.5 million per quarter beginning in the first quarter of 2011 and extend the period of time over which we recognize these deferred revenues.

Milestone Payments

At the inception of each agreement that includes contingent milestone payments, we evaluate whether the contingencies underlying each milestone event are substantive, specifically reviewing factors such as the scientific and other risks that must be overcome to achieve the milestone event, as well as the level of successful effort and investment required. If we do not consider a milestone event to be substantive, the revenues from the related milestone payment cannot be recognized when the milestone event is achieved, but must be recognized on a straight-line basis over the remaining period of performance.

Where a substantive milestone event is achieved in a collaboration arrangement, where we have no obligations remaining after achievement of the milestone and the corresponding payment is reasonably assured, we recognize the payment as earned. Because achievement of a substantive milestone event under a collaboration agreement typically requires the completion of a number of activities conducted over a significant period of time, the expenses related to achieving the milestone event often are incurred prior to the period in which the milestone payment is recognized.

The milestone events that we achieved under our Janssen collaboration agreement in 2008 that resulted in $55.0 million in revenues were considered substantive. There are $250.0 million in potential milestone payments under the Janssen agreement related to the regulatory filing and approval by the EMA of an MAA for telaprevir and the launch of telaprevir in the European Union. We expect that when, and if, these milestone events are achieved, the milestone events will be considered substantive and that revenues related to each milestone event will be recognized in the quarter in which the corresponding payment is reasonably assured.

Royalty Revenues

In May 2008, we entered into a purchase agreement with Fosamprenavir Royalty, L.P. pursuant to which we sold, and Fosamprenavir Royalty purchased for a one-time cash payment to us of $160.0 million, our right to receive royalty payments, net of subroyalty amounts payable to a third party, arising from sales of Lexiva/Telzir and Agenerase under our 1993 agreement with GlaxoSmithKline. We deferred the recognition of $155.1 million of revenues in connection with this sale. In May 2008, we began recognizing these deferred revenues under the units-of-revenue method. Under this method, the amount of deferred revenues to be recognized as royalty revenues in each period is calculated by multiplying the following: (1) the net royalty payments due from GlaxoSmithKline to Fosamprenavir Royalty for the period by (2) the ratio of the revenues we received from the sale of our rights to HIV royalty payments that we have not yet recognized to the total estimated remaining net royalties that we expect GlaxoSmithKline to pay Fosamprenavir Royalty over the remaining term of the agreement. Estimating the total remaining net royalties that GlaxoSmithKline will pay to Fosamprenavir Royalty requires the use of subjective estimates and assumptions, including estimates regarding the size of the potential market for HIV protease inhibitors, the competitive position of Lexiva/Telzir specifically and HIV protease inhibitors generally with respect to currently approved drugs and drugs that may be approved in the future, and the pricing of Lexiva/Telzir. Changes to our estimate of the total remaining net royalties that GlaxoSmithKline will pay to Fosamprenavir Royalty could have a material effect on the amount of royalty revenues we recognize in a particular period.

Prior to May 2008, royalty revenues typically were recognized based upon actual and estimated net sales of licensed HIV drugs and generally were recognized in the period the sales occurred. We

reconciled and adjusted for differences between actual royalty revenues and estimated royalty revenues in the quarter any differences became known. These differences were not significant.

Research and Development Expenses

All research and development expenses, including amounts funded through research and development collaborations, are expensed as incurred. Research and development expenses are comprised of costs incurred in performing research and development activities, including salary and benefits; stock-based compensation expense; laboratory supplies and other direct expenses; contractual services, including clinical trial and pharmaceutical development costs; expenses associated with the commercial supply investment in our drug candidates; and infrastructure costs, including facilities costs and depreciation.

When third-party service providers' billing terms do not coincide with our period-end, we are required to make estimates of our obligations to those third parties, including clinical trial and pharmaceutical development costs, contractual services costs and costs for commercial supply of our drug candidates, incurred in a given accounting period and record accruals at the end of the period. We base our estimates on our knowledge of the research and development programs, services performed for the period, past history for related activities and the expected duration of the third-party service contract, where applicable.

Commercial Supplies

Over the past several years we have incurred significant costs related to the manufacture of commercial supplies of telaprevir. We also are beginning to incur costs related to the manufacture of commercial supplies of VX-770, although these have been considerably less than the costs related to the manufacture of commercial supplies of telaprevir. After we receive data from a Phase 3 clinical trial of a drug candidate, determining whether or not to continue to classify all of the commercial supply costs related to that drug candidate as research and development expenses or to capitalize some of them as inventory involves significant judgments. We capitalize inventories produced in preparation for potentially initiating sales of a drug candidate when the drug candidate is considered to have a high probability of regulatory approval and the costs to manufacture the drug candidate are expected to be recoverable through sales of the drug. In determining whether or not to capitalize such inventory, we evaluate, among other factors, information regarding the drug candidate's safety and efficacy, the status of regulatory submissions and communications with regulatory authorities and the outlook for commercial sales, including the existence of current or anticipated competitive drugs and the availability of reimbursement. In addition, we evaluate risks associated with manufacturing the drug candidate and the remaining shelf life of the inventory. After we begin capitalizing inventory, we continue to monitor these factors and, if there are significant negative developments regarding the drug candidate, we could be required to impair previously capitalized costs.

While we believe that the development activities and clinical trial data to date have reduced the risks associated with obtaining marketing approval for telaprevir, we expensed all of our costs related to the manufacture of commercial supplies of telaprevir in 2010 because of the inherent risks of drug development, including uncertainty about the regulatory approval process. We expect to begin capitalizing the costs of our telaprevir commercial inventory in 2011. We expect that most of the costs of the initial commercial supplies of telaprevir that will be available if, and when, we obtain approval for telaprevir will have already been expensed. As a result, we expect the manufacturing costs for telaprevir included in our cost of revenues initially to be low, because most of these costs will have been recorded as research and development expenses in prior periods, and to increase as we begin to sell inventory that is produced after we begin capitalizing the costs of our telaprevir commercial inventory.

Business Combinations

In March 2009, we acquired ViroChem for $100.0 million in cash and common stock with a fair market value of $290.6 million. We assigned the value of the consideration transferred to acquire the business to the tangible assets and identifiable intangible assets acquired and liabilities assumed, on the basis of their fair values at the date of acquisition. The difference between the purchase price and the fair value of assets acquired and liabilities assumed was allocated to goodwill. This goodwill related to the potential synergies from the possible development of combination therapies involving telaprevir and the acquired drug candidates. The allocations recorded on our consolidated balance sheet as of the acquisition date included $525.9 million of intangible assets related to in-process research and development and a $162.5 million deferred tax liability. As of December 31, 2010, our consolidated balance sheet included $518.7 million of intangible assets related to in-process research and development and a $160.3 million deferred tax liability.

The intangible assets acquired were in-process research and development assets relating to the drug candidates being developed by ViroChem, primarily VX-222 and VX-759, each of which is a HCV polymerase inhibitor that was in Phase 1 clinical development at the date of acquisition. VX-222 and VX-759 had estimated fair values on the acquisition date of $412.9 million and $105.8 million, respectively. In addition, we considered ViroChem's other clinical drug candidates and determined that VCH-286, ViroChem's lead HIV drug candidate, had an estimated fair value on the acquisition date of $7.2 million, based on development costs through the acquisition date, and that the other clinical drug candidates had no fair value because the clinical and nonclinical data for those drug candidates did not support further development as of the acquisition date. We also considered ViroChem's preclinical programs and other technologies and determined that because of uncertainties related to the safety, efficacy and commercial viability of the potential drug candidates, market participants would not ascribe value to those assets. Market participants relevant to the analysis of the fair value of drug candidates are third parties involved in the development and commercialization of drug candidates.

We assessed the fair value of assets, including intangible assets such as in-process research and development, using a variety of methods, including present-value models that are based upon multiple probability-weighted scenarios involving the development and potential commercialization of the acquired drug candidates. The present-value models used to estimate the fair values of VX-222 and VX-759 required us to make significant assumptions regarding the estimates that market participants would make in evaluating a drug candidate, including the probability of successfully completing clinical trials and obtaining regulatory approval to market the drug candidate, the timing of and the expected costs to complete in-process research and development projects, future cash flows from potential drug sales, which are based on estimates of the sales price of the drug, the number of patients that will be diagnosed and treated and our competitive position in the marketplace, and appropriate discount rates. The estimated fair value ascribed to VX-222 and VX-759 was based on the estimated fair value that would be ascribed to each of these drug candidates by a market participant that acquired both drug candidates in a single transaction. The assumed probability of advancing VX-222 and VX-759 through various phases of development reflects the understanding among market participants that most drug candidates that enter Phase 2 clinical trials are not ultimately approved for commercial sale. While, on the date of acquisition, VX-222 and VX-759 were each at a similar stage of development, we attributed a significantly higher value to VX-222 than to VX-759 because the clinical and nonclinical data from the VX-222 research program was significantly more promising than the clinical and nonclinical data from the VX-759 research program. In addition, the fair value estimate incorporates our determination that a market participant would not be likely to continue development of VX-759 unless future data from clinical trials or nonclinical studies of VX-222 resulted in a delay or discontinuation of the VX-222 development program. Projections of the duration and cost of nonclinical studies and clinical trials vary significantly over the life of a project depending on developments in the program over time, but in order to estimate the fair market value on the acquisition date we made the following

assumptions from the perspective of market participants regarding the potential timing and costs to develop VX-222 and/or VX-759. We assumed if a drug candidate were successfully developed in the United States it would take approximately five to nine years from the date of the acquisition in order to obtain marketing approval. In addition, for the valuation, we assumed an estimate of cost from acquisition to launch to develop a drug candidate that was within a range of $400 million to $700 million. Future cash flows, if any, would not be generated until a drug candidate completed all required phases of clinical trials and obtained regulatory approval. The risk-adjusted discount rate for each of these projects was approximately 28%.

ViroChem's in-process research and development assets were recorded at fair value and accounted for as indefinite-lived intangible assets. We will maintain each of these assets on our consolidated balance sheet until either the research and development project underlying it is completed or the asset becomes impaired. If we complete a project, we will amortize the carrying value of the related intangible asset as part of cost of revenues over the remaining estimated life of the asset. If we determine that a project has become impaired or we abandon a project, we will write down the carrying value of the related intangible asset to its fair value and will take an impairment charge in the period in which the impairment occurs. In order to complete an acquired research and development project, the related drug candidate must be evaluated in later-stage clinical trials, which are subject to all of the risks and uncertainties associated with the development of pharmaceutical products. In 2011, we expect to obtain data from an ongoing Phase 2a clinical trial evaluating telaprevir/VX-222-based combination therapy. If the fair value of any of these drug candidates, and in particular VX-222, becomes impaired as the result of unfavorable safety or efficacy data from any ongoing or future clinical trial or because of any other information regarding the prospects of successfully developing or commercializing the drug candidate, we could incur significant charges in the period in which the impairment occurs. VX-759, which is considered a backup compound to VX-222, could be impaired by data pertaining to the potential successful development of VX-222, which would reduce the likelihood that we will advance the development of VX-759. In such an instance, we could record significant charges in the period in which that data is analyzed and the determination is made.

We test the ViroChem intangible assets for impairment on an annual basis as of October 1, and more frequently if indicators are present or changes in circumstance suggest that impairment may exist. Events that could indicate impairment and trigger an interim impairment assessment include the receipt of additional clinical or nonclinical data regarding a drug candidate or a potentially competitive drug candidate, changes in the clinical development program for a drug candidate or new information regarding potential sales prices for the drug. In connection with each annual impairment assessment and any interim impairment assessment, we compare the fair value of the asset as of the date of the assessment with the carrying value of the asset on our consolidated balance sheet. The fair values of VX-222 and VX-759 are estimated using the probability weighted present-value models described above, utilizing updated assumptions and estimates regarding the status of the development programs for the drug candidates, the potential future cash flows from sales of drugs, and appropriate discount rates.

In the fourth quarter of 2009, we determined the fair value of VCH-286 was zero, resulting in a $7.2 million impairment charge. In connection with this impairment charge, we also recorded an adjustment of $2.2 million to the deferred tax liability. In the fourth quarters of 2010 and 2009, we evaluated VX-222, VX-759 and the goodwill related to the ViroChem transaction for impairment. No impairment was found for VX-222, VX-759 or the goodwill.

Restructuring Expense

We record liabilities associated with restructuring activities based on estimates of fair value in the period the liabilities are incurred. The liability for accrued restructuring expense of $29.6 million at December 31, 2010 is related to that portion of our facility in Kendall Square, Cambridge,

Massachusetts that we are not occupying and do not intend to occupy. This liability is calculated by applying our best estimate of the net amount of our ongoing obligation under the Kendall Square lease. We use a discounted cash-flow analysis to calculate the amount of this liability. The probability-weighted discounted cash-flow analysis is based on management's assumptions and estimates of our ongoing lease obligations, including contractual rental commitments, build-out commitments and building operating costs, and estimates of income from subleases, based on the term and timing of the subleases. We discount the estimated cash flows using a discount rate of approximately 10%. These cash flow estimates are reviewed and may be adjusted in subsequent periods. Adjustments are based, among other things, on management's assessment of changes in factors underlying the estimates. Because our estimate of the liability includes the application of a discount rate to reflect the time-value of money, the estimate will increase simply as a result of the passage of time, even if all other factors remain unchanged. Our estimates of our restructuring liability have changed in the past, and it is possible that our assumptions and estimates will change in the future, resulting in additional adjustments to the amount of the estimated liability. The effect of any such adjustments could be material. We will review our assumptions and judgments related to the lease restructuring on at least a quarterly basis until the Kendall Square lease is terminated or expires, and make whatever modifications we believe are necessary, based on our judgments, to reflect any changed circumstances.

Stock-based Compensation Expense

We measure the compensation cost of stock-based compensation at the grant date, based on the fair value of the award, including estimated forfeitures, and we recognize that cost as an expense ratably over the associated employee service period, which generally is the vesting period of the equity award, or the derived service period for awards with market conditions. For our awards with performance conditions, we make estimates regarding the likelihood of satisfaction of the performance condition that affect the period over which the expense is recognized. We calculate the fair value of stock options and shares purchased pursuant to our employee stock purchase plan using the Black-Scholes option pricing model. The Black-Scholes option pricing model requires us to make certain assumptions and estimates concerning our stock price volatility, the rate of return of risk-free investments, the expected term of the awards, and our anticipated dividends. In determining the amount of expense to be recorded, we also are required to exercise judgment to estimate forfeiture rates for awards, based on the probability that employees will complete the required service period. If actual forfeitures differ significantly from our estimates, if any of our estimates or assumptions prove incorrect, or if the likelihood of achievement of a performance condition changes, our results could be materially affected.

RESULTS OF OPERATIONS

	2010	2009	2008	2010/2009 Comparison Increase/ (Decrease)	2010/2009 Comparison Increase/ (Decrease)	2009/2008 Comparison Increase/ (Decrease)	2009/2008 Comparison Increase/ (Decrease)
		(in thousands)		(in thousands, except percentages)			
Revenues	$ 143,370	$ 101,889	$ 175,504	$ 41,481	41%	$ (73,615)	(42)%
Operating costs and expenses	839,447	715,901	638,212	123,546	17%	77,689	12%
Non-operating loss (gain)	58,549	28,166	(2,857)	30,383	108%	31,023	n/a
Net loss	$ 754,626	$ 642,178	$ 459,851	$ 112,448	18%	$ 182,327	40%

Net Loss

The increased net loss in 2010 as compared to 2009 was the result of significant increases in our costs and expenses, partially offset by an increase in our revenues. The increase in our operating costs and expenses during 2010 as compared to 2009 was primarily due to increased expenses for our commercial organization and increased investment in commercial supplies of telaprevir.

The increased net loss in 2009 as compared to 2008 was the result of a significant increase in our operating costs and expenses combined with a significant decrease in our revenues. Our lower revenues in 2009 were primarily the result of our recognition of milestone revenues in 2008 for which there were no corresponding milestone revenues in 2009. The increased expenses included increased operating expenses related to the growth in size of our workforce and to our late-stage clinical programs and increased stock-based compensation expense.

Net Loss Per Share

Our net loss for 2010 was $3.77 per basic and diluted common share compared to a net loss for 2009 of $3.71 per basic and diluted common share. Our net loss per basic and diluted common share increased in 2010 compared to 2009 as a result of an 18% increase in net loss, largely offset by an increase in the number of basic and diluted weighted-average common shares outstanding from 173.3 million shares in 2009 to 200.4 million shares in 2010. The increase in the weighted-average number of common shares outstanding in 2010 compared to 2009 resulted primarily from the equity offering we completed in December 2009 and the exchanges and conversions of our 4.75% convertible senior subordinated notes due 2013, or 2013 Notes, into common stock during 2009 and 2010.

Our net loss for 2009 was $3.71 per basic and diluted common share compared to a net loss for 2008 of $3.27 per basic and diluted common share. Our net loss per basic and diluted common share increased in 2009 compared to 2008 as a result of a 40% increase in net loss, partially offset by an increase in the number of basic and diluted weighted-average common shares outstanding from 140.6 million shares in 2008 to 173.3 million shares in 2009. The increase in the weighted-average number of common shares outstanding in 2009 compared to 2008 resulted primarily from the equity offering we completed in February 2009, the ViroChem acquisition in March 2009 and the exchanges of the 2013 Notes into common stock during 2009.

Stock-based Compensation and Certain Other Expenses

The comparisons of our operating costs and expenses and other losses in the three years ended December 31, 2010 reflect changes in our levels of stock-based compensation expense and certain other expenses during the periods. Our stock-based compensation expense has increased due to the expansion of our workforce and increased expenses related to equity awards that incorporate performance-based vesting acceleration.

In 2010 and 2009, we incurred $56.3 million and $5.3 million, respectively, in non-cash expenses related to financial transactions that we completed in September 2009. Most of these non-cash expenses in 2010 related to changes in the fair value of derivative instruments associated with the September 2009 financial transactions, resulting from changes in our estimates due to our receipt of positive data from the telaprevir registration program and Janssen's receipt of accelerated assessment from the EMA for the telaprevir MAA.

Our costs and expenses in 2010, 2009 and 2008 included the following:

	2010	2009	2008
		(in thousands)	
Stock-based compensation expense	$ 91,124	$ 86,722	$ 57,987
Restructuring expense	1,501	6,240	4,324
Acquisition-related expenses (ViroChem)	—	7,793	—
September 2009 financial transaction expenses	56,297	5,312	—
Intangible asset impairment charges	—	7,200	—
Loss on exchanges of convertible notes	—	18,137	—

Revenues

	2010	2009	2008	2010/2009 Comparison		2009/2008 Comparison	
		(in thousands)		(in thousands, except percentages)			
Royalty revenues	$ 30,244	$ 28,320	$ 37,483	$ 1,924	7%	$ (9,163)	(24)%
Collaborative revenues	113,126	73,569	138,021	39,557	54%	(64,452)	(47)%
Total revenues	$ 143,370	$ 101,889	$ 175,504	$ 41,481	41%	$ (73,615)	(42)%

Our total revenues in recent periods have consisted primarily of collaborative revenues, which have fluctuated significantly on a quarterly basis. This variability has been due to, among other things: the July 2009 amendment of our collaboration agreement with Mitsubishi Tanabe, which provided for an up-front payment that is being recognized over the expected period of performance under that contract; the variable level of net reimbursement we have received for the telaprevir development program from Janssen; increased revenues in 2010 from services we provided to our telaprevir collaborators through our third-party manufacturing network; and the timing of recognition of significant milestone revenues. If we are successful in obtaining approval for telaprevir by May 23, 2011, the FDA's target date to review our NDA submission, we expect to begin receiving product revenues from sales of telaprevir in the United States in mid-2011.

Collaborative Revenues

The table presented below is a summary of revenues from collaborative arrangements for 2010, 2009 and 2008:

	2010	2009	2008
		(in thousands)	
Collaborative revenues:			
Janssen	$ 30,750	$ 54,640	$ 120,122
Mitsubishi Tanabe	81,868	18,711	9,852
Other	508	218	8,047
Total collaborative revenues	$ 113,126	$ 73,569	$ 138,021

Our revenues from the Janssen collaboration in each period consisted of:

	2010	2009	2008
		(in thousands)	
Amortized portion of up-front payment	$ 12,428	$ 20,196	$ 22,440
Milestone revenues	—	—	55,000
Net reimbursement for telaprevir development costs	9,245	27,711	42,627
Reimbursement for manufacturing services	9,077	6,733	55
Total collaborative revenues attributable to the Janssen collaboration	$ 30,750	$ 54,640	$ 120,122

We have not recognized milestone revenues from Janssen since 2008, but will recognize milestone revenues from Janssen in 2011. The milestone event under the Janssen agreement related to the filing of the MAA for telaprevir was achieved in the first quarter of 2011 and is expected to result in $50.0 million of collaborative revenues. This milestone payment will be applied toward the redemption of $50.0 million of our outstanding 2012 Notes as is required pursuant to the terms of the 2012 Notes. In 2011, it is possible that we will achieve one or more of the additional $200.0 million in potential Janssen milestone payments related to the approval and launch of telaprevir in the European Union. We are obligated to apply the proceeds from the next $105.0 million of these milestone payments toward the redemption of the remaining $105.0 million of 2012 Notes. The final $95.0 million in milestone payments related to the potential launch of telaprevir in the European Union are to be paid by Janssen directly to the purchaser of these milestone payments.

We adjusted our estimates regarding the period of performance under the Janssen agreement in the first quarter of 2010 due to changes in the global development plan for telaprevir, which contemplates the conduct of certain post-approval development activities, including a clinical trial of twice-daily dosing of telaprevir and a clinical trial in patients co-infected with HIV and HCV. This adjustment, together with a similar adjustment that we made in the third quarter of 2009, resulted in decreases in annual revenues from the amortized portion of the Janssen upfront payment. Our net reimbursements for telaprevir development costs have been decreasing on an annual basis because the proportion of the development activities that Janssen is conducting under the telaprevir development program has been increasing. The decreases in our net reimbursements for development costs have been partially offset by increases in revenues related to manufacturing services provided to Janssen through our third-party manufacturing network.

In the third quarter of 2009, we entered into an amendment to our license, development and commercialization agreement with Mitsubishi Tanabe that resulted in a $105.0 million payment when the amendment was executed. We classified this payment as deferred revenues and are recognizing it over the expected period of performance for our obligations under the amended agreement. In 2010 and 2009, we recognized $38.2 million and $15.9 million, respectively, of revenues from Mitsubishi Tanabe related to the $105.0 million payment. In 2010, we also recognized $43.6 million of revenues related to manufacturing services provided to Mitsubishi Tanabe through our third-party manufacturing network.

Royalty Revenues

Our royalty revenues relate to sales of the HIV protease inhibitors Lexiva/Telzir and Agenerase by GlaxoSmithKline. In May 2008, we sold our right to receive future royalties from GlaxoSmithKline with respect to Lexiva/Telzir and Agenerase, excluding the portion allocated to pay a subroyalty on these net sales to a third party, in return for a one-time cash payment of $160.0 million. In May 2008, we deferred the recognition of $155.1 million of revenues from this sale. We are recognizing these deferred revenues over the term of our agreement with GlaxoSmithKline under the units-of-revenue method. We will continue to recognize royalty revenues equal to the amount of the third-party subroyalty and an offsetting royalty expense for the third-party subroyalty payment. In 2011, we expect to recognize as

royalty revenues a portion of the remaining deferred revenues from the sale of the royalty stream plus the full amount of the third-party subroyalty.

If Janssen is successful in obtaining approval for telaprevir, it will pay us royalties on sales of telaprevir in Janssen's territories. Janssen has obtained accelerated assessment for its MAA for telaprevir and is seeking to obtain approval for and launch telaprevir in the European Union in the second half of 2011. We will not receive any royalties from Mitsubishi Tanabe on sales of telaprevir.

Costs and Expenses

	2010	2009	2008	2010/2009 Comparison		2009/2008 Comparison	
		(in thousands)		(in thousands, except percentages)			
Royalty expenses	$ 12,730	$ 14,202	$ 15,686	$ (1,472)	(10)%	$ (1,484)	(9)%
Research and development expenses	637,416	550,274	516,912	87,142	16%	33,362	6%
Sales, general and administrative expenses	187,800	130,192	101,290	57,608	44%	28,902	29%
Restructuring expense	1,501	6,240	4,324	(4,739)	(76)%	1,916	44%
Intangible asset impairment charges	—	7,200	—	(7,200)	(100)%	7,200	n/a
Acquisition-related expense	—	7,793	—	(7,793)	(100)%	7,793	n/a
Total costs and expenses	$ 839,447	$ 715,901	$ 638,212	$ 123,546	17%	$ 77,689	12%

Our operating costs and expenses primarily relate to our research and development expenses and our sales, general and administrative expenses. Our research and development expenses have been increasing due to the expanding scope of activities related to the development of and regulatory submissions for our clinical drug candidates and increasing investments in commercial supplies for telaprevir. Our sales, general and administrative expenses have been increasing as we increase our headcount and expand our capabilities in preparation for the potential commercial launch of telaprevir.

Research and Development Expenses

	2010	2009	2008	2010/2009 Comparison		2009/2008 Comparison	
		(in thousands)		(in thousands, except percentages)			
Research expenses	$ 189,273	$ 174,267	$ 165,381	$ 15,006	9%	$ 8,886	5%
Development expenses	448,143	376,007	351,531	72,136	19%	24,476	7%
Total research and development expenses	$ 637,416	$ 550,274	$ 516,912	$ 87,142	16%	$ 33,362	6%

Our research and development expenses include internal and external costs incurred for research and development of our drug candidates, including telaprevir and VX-770. We do not assign our internal costs, such as salary and benefits, stock-based compensation expense, laboratory supplies and infrastructure costs, to individual drug candidates, because the employees within our research and development groups typically are deployed across multiple research and development programs. These internal costs are significantly greater than our external costs, such as the costs of services provided to us by clinical research organizations and other outsourced research, which we do allocate by individual drug development program. All research and development costs for our drug candidates are expensed as incurred.

To date, we have incurred in excess of $4.0 billion in research and development expenses associated with drug discovery and development. The successful development of our drug candidates is highly uncertain and subject to a number of risks. In addition, the duration of clinical trials may vary substantially according to the type, complexity and novelty of the drug candidate and the disease indication being targeted. The FDA and comparable agencies in foreign countries impose substantial requirements on the introduction of therapeutic pharmaceutical products, typically requiring lengthy

and detailed laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures. Data obtained from nonclinical and clinical activities at any step in the testing process may be adverse and lead to discontinuation or redirection of development activities. Data obtained from these activities also are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The duration and cost of discovery, nonclinical studies and clinical trials may vary significantly over the life of a project and are difficult to predict. Therefore, accurate and meaningful estimates of the ultimate costs to bring our drug candidates to market are not available.

Over the three year period ended December 31, 2010, costs related to telaprevir have represented the largest portion of the development costs for our clinical drug candidates. We have completed the registration program for telaprevir, but expect to continue to incur telaprevir development costs in connection with seeking regulatory approval for telaprevir and conducting additional clinical trials. We expect to begin generating revenues and cash flows from sales of telaprevir in 2011. If our registration program for VX-770 is successful and completed on currently projected timelines, we could submit an NDA and an MAA for VX-770 in the second half of 2011. Our other drug candidates are less advanced and, as a result, any estimates regarding development and regulatory timelines for these drug candidates are highly subjective and subject to change. We cannot make a meaningful estimate when, if ever, these drug candidates, including the drug candidates we acquired from ViroChem, will generate revenues and cash flows.

Research Expenses

	2010	2009	2008	2010/2009 Comparison		2009/2008 Comparison	
		(in thousands)		(in thousands, except percentages)			
Research Expenses:							
Salary and benefits	$ 67,508	$ 63,422	$ 55,755	$ 4,086	6%	$ 7,667	14%
Stock-based compensation expense	23,496	23,802	18,764	(306)	(1)%	5,038	27%
Laboratory supplies and other direct expenses	29,145	28,136	24,284	1,009	4%	3,852	16%
Contractual services	9,881	5,406	8,725	4,475	83%	(3,319)	(38)%
Infrastructure costs	59,243	53,501	57,853	5,742	11%	(4,352)	(8)%
Total research expenses	$ 189,273	$ 174,267	$ 165,381	$ 15,006	9%	$ 8,886	5%

Over the past three years we have maintained a substantial investment in research activities with changes in various categories of expense resulting in a 9% increase in research expenses in 2010 as compared to 2009 and a 5% increase in research expenses in 2009 as compared to 2008. We expect to continue to invest in our research programs in an effort to identify additional drug candidates.

Development Expenses

	2010	2009	2008	2010/2009 Comparison		2009/2008 Comparison	
		(in thousands)		(in thousands, except percentages)			
Development Expenses:							
Salary and benefits	$ 108,617	$ 98,830	$ 78,947	$ 9,787	10%	$ 19,883	25%
Stock-based compensation expense	41,702	40,326	27,380	1,376	3%	12,946	47%
Laboratory supplies and other direct expenses	33,231	27,682	30,281	5,549	20%	(2,599)	(9)%
Contractual services	113,031	111,579	121,062	1,452	1%	(9,483)	(8)%
Commercial supply investment	65,902	21,591	17,559	44,311	205%	4,032	23%
Infrastructure costs	85,660	75,999	76,302	9,661	13%	(303)	0%
Total development expenses	$ 448,143	$ 376,007	$ 351,531	$ 72,136	19%	$ 24,476	7%

The increase in our development expenses during 2010 as compared to 2009 is due to a large increase in our commercial supply investment and increases across most other categories of our development expenses. The majority of the increase in our commercial supply investment was related to increasing our inventory of telaprevir in preparation for the potential commercial launch of telaprevir in mid-2011 and a portion of the increase was related to manufacturing services that we provided to Mitsubishi Tanabe and Janssen through our third-party manufacturing network. Our development expenses excluding our commercial supply investment increased by $27.8 million, or 8%, in 2010 compared to 2009, principally due to increased salary and benefits and infrastructure costs. We expect that we will be able to begin to capitalize our investment in commercial supplies of telaprevir during 2011, and that as a result the commercial supply investment reflected in our development expenses may decrease significantly in 2011 as compared to 2010.

Our development expenses increased by $24.5 million, or 7%, in 2009 as compared to 2008 primarily as a result of increased expenses related to our workforce partially offset by decreases in our contractual services expenses.

Sales, General and Administrative Expenses

	2010	2009	2008	2010/2009 Comparison		2009/2008 Comparison	
		(in thousands)		(in thousands, except percentages)			
Sales, general and administrative expenses	$ 187,800	$ 130,192	$ 101,290	$ 57,608	44%	$ 28,902	29%

Sales, general and administrative expenses increased substantially in each of 2010 and 2009 as compared to the preceding year as a result of increases in workforce expenses as we prepare for the potential commercial launch of telaprevir. In 2010, our sales, general and administrative expenses increased from $35.6 million in the first quarter to $62.5 million in the fourth quarter. We expect that sales, general and administrative expenses will increase significantly in 2011 as compared to 2010, as the effect of the expansion of our commercial organization during 2010 is reflected in the sales, general and administrative expenses over a full fiscal year. In addition, we expect to continue increasing the number of employees in our commercial organization and expect to incur substantial additional external costs in connection with the commercial launch of telaprevir.

Royalty Expenses

Royalty expenses decreased $1.5 million, or 10%, in 2010 compared to 2009. Royalty expenses decreased $1.5 million, or 9%, in 2009 compared to 2008. Royalty expenses primarily relate to a subroyalty payable to a third party on net sales of Lexiva/Telzir and Agenerase. The subroyalty expense offsets a corresponding amount of royalty revenues. We expect to continue to recognize this subroyalty as an expense in future periods.

Restructuring Expense

As of December 31, 2010, our lease restructuring liability was $29.6 million. In 2010, 2009 and 2008, we recorded restructuring expense of $1.5 million, $6.2 million and $4.3 million, respectively. In 2010, 2009 and 2008, we made cash payments of $14.8 million, $14.9 million and $14.0 million, respectively, against the accrued expense and received $8.8 million, $8.6 million and $8.5 million, respectively, in sublease rental payments. During 2011, we expect to make additional cash payments of $14.8 million against the accrued expense and to receive $9.3 million in sublease rental payments.

Acquisition-related Expenses

We incurred $7.8 million of expenses in 2009 in connection with our acquisition of ViroChem, including $5.7 million in transaction expenses and $2.1 million related to a restructuring of ViroChem's operations that we undertook in 2009 in order to focus ViroChem's activities on its HCV assets. We did not have corresponding acquisition-related expenses in 2010 or 2008.

Impairment of Intangible Assets

In 2009, we recorded an expense of $7.2 million in connection with an impairment of the intangible assets related to ViroChem's development program for VCH-286, a drug candidate for the treatment of HIV infection. This intangible asset was estimated to have a fair value on the acquisition date of $7.2 million, based on development costs through the acquisition date. In the fourth quarter of 2009, we determined that VCH-286 was impaired and recorded an impairment charge of $7.2 million.

Non-operating Items

Interest Income

Interest income decreased by $3.1 million, or 61%, to $2.0 million in 2010 from $5.0 million in 2009. The decrease in 2010 compared to 2009 was the result of lower portfolio yields in 2010 periods as compared to 2009. Our cash, cash equivalents and marketable securities yielded approximately 0% on an annual basis in 2010 compared to approximately 1% on an annual basis in 2009. Interest income decreased by $11.3 million, or 69%, to $5.0 million in 2009 from $16.3 million in 2008. The decrease was a result of lower portfolio yields during 2009 as compared to 2008.

Interest Expense

Interest expense increased by $6.1 million, or 46%, to $19.3 million in 2010 from $13.2 million in 2009. The increase was the result of interest expense related to the 2012 Notes that we issued in September 2009 and the 3.35% convertible senior subordinated notes due 2015, or 2015 Notes, we issued in September 2010, partially offset by a decrease in interest expense related to our 2013 Notes. In 2011, we expect that we will have $13.4 million in interest expense related to the 2015 Notes and that we will continue to incur imputed interest expense related to our 2012 Notes.

Interest expense decreased by $0.3 million, or 2%, to $13.2 million in 2009 from $13.5 million in 2008 as a result of a decrease in interest expenses related to our 2013 Notes from $12.0 million in 2008 to $8.8 million in 2009 partially offset by the interest expenses in 2009 related to the 2012 Notes that we issued in September 2009.

Change in Fair Value of Derivative Instruments

In 2010 and 2009, we recorded losses of $41.2 million and $1.8 million, respectively, in connection with the embedded and free-standing derivatives associated with our September 2009 financial transactions. The losses in 2010 were principally due to adjustments we made during 2010 to estimates regarding the timing and increased probability of achieving the milestones under the Janssen agreement based on the positive data from our telaprevir registration program and Janssen's receipt of accelerated assessment from the EMA for the telaprevir MAA. These losses also included time-value-of-money adjustments to the estimated fair value of the free-standing derivative. If Janssen obtains approval for and launches telaprevir in the European Union, we expect that we will incur $35.2 million in additional non-cash expenses related to the September 2009 financial transactions. We expect the majority of these additional expenses to be reflected as changes in the fair value of derivative instruments and a portion of these additional expenses to be reflected as interest expense.

Loss on Exchange of Convertible Subordinated Notes

In 2009, we incurred non-cash charges of $18.1 million in connection with the exchanges of $255.4 million in aggregate principal amount of the 2013 Notes for 11.6 million newly-issued shares of our common stock. The charges are based on the value of the additional 542,937 shares of common stock that we issued in excess of the number of shares of common stock into which such 2013 Notes were convertible prior to the exchanges. There were no corresponding expenses in 2010 or 2008.

LIQUIDITY AND CAPITAL RESOURCES

We have incurred operating losses since our inception and these operating losses have been increasing over the past several years. We have financed our operations principally through public and private offerings of our equity and debt securities, strategic collaborative agreements that include research and/or development funding, development milestones and royalties on the sales of products, strategic sales of assets or businesses, financial transactions, investment income and proceeds from the issuance of common stock under our employee benefit plans. We expect that we will incur substantial expenses in order to seek approval for and commercialize telaprevir while at the same time continuing to pursue diversified research and development efforts for our other drug candidates. In 2011, we expect to begin to receive cash flows from sales of telaprevir.

At December 31, 2010, we had cash, cash equivalents and marketable securities of $1.0 billion, which was a decrease of $253.5 million from $1.3 billion at December 31, 2009. The decrease was primarily the result of cash expenditures we made in 2010 related to, among other things, research and development expenses and sales, general and administrative expenses, partially offset by the $391.6 million in net proceeds we received from our September 2010 issuance of the 2015 Notes. Capital expenditures for property and equipment during the year ended December 31, 2010 were $38.1 million.

We had $155.0 million in aggregate principal amount of 2012 Notes outstanding on December 31, 2010. The 2012 Notes mature on October 31, 2012, subject to earlier mandatory redemption as specified milestone events under our collaboration with Janssen are achieved prior to October 31, 2012. In September 2009, we also sold our rights to receive an additional $95.0 million of potential future milestone payments that we expect to receive from Janssen for the launch of telaprevir in the European Union. As a result of these transactions, the $250.0 million of potential milestone payments from Janssen related to the filing, approval and launch of telaprevir in the European Union, if and when earned, will not provide us with liquidity in the future except to the extent that they fund the redemption of $155.0 million of our 2012 Notes. In the first quarter of 2011, a milestone event under our collaboration with Janssen was achieved. Pursuant to the terms of the 2012 Notes, we are required to redeem the first $50.0 million of 2012 Notes with the proceeds from this milestone payment.

At December 31, 2010, we had outstanding $400.0 million in aggregate principal amount of 2015 Notes. The 2015 Notes bear interest at the rate of 3.35% per annum, and we are required to make semi-annual interest payments on the outstanding principal balance of the 2015 Notes on April 1 and October 1 of each year, beginning on April 1, 2011. The 2015 Notes will mature on October 1, 2015. The 2015 Notes are convertible, at the option of the holder, into our common stock at a price equal to approximately $48.83 per share, subject to adjustment. In January 2011, we entered into a credit agreement that provides for a $100.0 million revolving credit facility.

We expect to continue to make significant investments in our development pipeline, particularly in our effort to prepare for potential registration, regulatory approval and commercial launch of telaprevir and VX-770, and in clinical trials for our other drug candidates. We also expect to continue to make a substantial investment in drug discovery research. The adequacy of our available funds to meet our future operating and capital requirements will depend on many factors, including the timing of regulatory approvals for our late-stage drug candidates, the timing and levels of product revenues

generated by any drug that is approved, the number, breadth, costs and prospects of our discovery and development programs, and our decisions regarding manufacturing and commercial investments.

We believe that our current cash, cash equivalents and marketable securities will be sufficient to fund our operations for at least the next twelve months. If we meet our expectations for approval and sales of telaprevir, we believe we will begin generating earnings as a cashflow positive company during 2012. We may seek to borrow working capital if such financing is available to us. The $100.0 million credit facility is initially unsecured, but is subject to a number of affirmative and negative covenants, including a liquidity covenant that requires us to maintain cash, cash equivalents and marketable securities of more than $400.0 million in domestic accounts. If we breach any of these covenants and it results in an event of default, upon the event of default we would grant a security interest in and transfer to an account controlled by the lender cash, cash equivalents and marketable securities having a margined value of $100.0 million. The credit agreement terminates on July 6, 2012. Although we do not have any plans to do so in the near term, we may raise additional capital through public offerings or private placements of our securities, securing new collaborative agreements or other methods of financing. Any such capital transactions may or may not be similar to transactions in which we have engaged in the past. We will continue to manage our capital structure and to consider all financing opportunities, whenever they may occur, that could strengthen our long-term liquidity profile. There can be no assurance that any such financing opportunities will be available on acceptable terms, if at all. 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 or attempt to obtain funds through arrangements that may require us to relinquish rights to certain of our technologies or drug candidates.

CONTRACTUAL COMMITMENTS AND OBLIGATIONS

The first part of the following table sets forth commitments and obligations that have been recorded on our consolidated balance sheet at December 31, 2010. Certain other obligations and commitments, while not required under GAAP to be included in the consolidated balance sheet, may have a material impact on liquidity. We have presented these items, in the remaining rows of the table below in order to present a more complete picture of our financial position and liquidity.

	2011	2012-2013	2014-2015	2016 and later	Total
			(in thousands)		
Commitments and Obligations Recorded on the Consolidated Balance Sheet at December 31, 2010:					
Convertible senior subordinated notes (due October 2015)—principal payment	$ —	$ —	$ 400,000	$ —	$ 400,000
Convertible senior subordinated notes (due October 2015)—interest payments	3,462	—	—	—	3,462
Secured notes due October 2012	136,991	—	—	—	136,991
Liability related to sale of potential future milestone payments	77,799	—	—	—	77,799
Additional Commitments and Obligations at December 31, 2010:					
Convertible senior subordinated notes (due October 2015)—interest payments	10,050	26,800	26,800	—	63,650
Facility operating leases	48,269	85,791	75,381	55,413	264,854
Secured notes due October 2012, net of amounts reflected on consolidated balance sheet	18,009	—	—	—	18,009
Liability related to sale of potential future milestone payments, net of amounts reflected on consolidated balance sheet	17,201	—	—	—	17,201
Research, development and commercial supply investment	8,007	—	—	—	8,007
Total contractual commitments and obligations	$ 319,788	$ 112,591	$ 502,181	$ 55,413	$ 989,973

Commitments and Obligations Recorded on the Consolidated Balance Sheet at December 31, 2010

In September 2010, we issued $400.0 million in aggregate principal amount of 2015 Notes. The principal and interest accrued as of December 31, 2010 under these notes is included on our consolidated balance sheet as of December 31, 2010. The interest that is due for periods after December 31, 2010 is not required under GAAP to be reflected on our consolidated balance sheet and is set forth separately on the table above.

As a result of our September 2009 financial transactions, we are obligated to pay $155.0 million in October 2012 to retire the 2012 Notes. If specified milestone events under our Janssen collaboration relating to the filing, approval and launch of telaprevir in the European Union are achieved prior to October 31, 2012, we are required to redeem a portion of the 2012 Notes equal to each milestone payment as it is earned under the Janssen collaboration, until the 2012 Notes are redeemed in full. The first of these milestone events was achieved in the first quarter of 2011 and the related milestone payment of $50.0 million will be used to redeem $50.0 million of the 2012 Notes pursuant to the terms of the 2012 Notes. The holders of the 2012 Notes will have the right to cause us to repurchase all or any part of the 2012 Notes at 100% of the face value if we experience a change of control. In addition, in September 2009, we sold $95.0 million in additional potential future milestone payments from Janssen. The liability related to this sale is reflected on the consolidated balance sheet at its fair value of $77.8 million as of December 31, 2010. The difference between the fair value and $95.0 million is reflected on the table above as an additional commitment.

Janssen is seeking to obtain approval and launch telaprevir in the European Union in 2011, and the table above reflects the estimate that the remaining $200.0 million in milestones under the Janssen collaboration will be achieved in 2011. If the milestone events are not achieved or are delayed until 2012, the obligations under the 2012 Notes would not be due until 2012. The liability related to the sale of the additional $95.0 million in milestone payments is contingent on the achievement of the related milestones.

Additional Commitments and Obligations Not Required to be Recorded on Consolidated Balance Sheet at December 31, 2010

Our future minimum commitments and contractual obligations include facility operating leases and contractual commitments related to our research, development and commercial supply investment, and interest that will accrue on the 2015 Notes after December 31, 2010 and liabilities related to our September 2009 financial transactions that are not recorded on our consolidated balance sheet as of December 31, 2010. These items are not required under GAAP to be recorded on our consolidated balance sheet. They are disclosed in the table presented above to provide a more complete picture of our financial position and liquidity.

Our future minimum commitments under our Kendall Square lease for the period commencing on January 1, 2011 are $18.3 million for 2011, $36.5 million for 2012 and 2013, $36.5 million for 2014 and 2015, and $42.6 million from 2016 through the expiration of the lease in 2018. These amounts are included in the table above as part of our facility operating leases. Rent payments for our Kendall Square lease will be subject to increase in May 2013, based on changes in an inflation factor. We are using approximately 40% of the Kendall Square facility for our operations. We have entered into two subleases for the remaining rentable square footage at the Kendall Square facility to offset our on-going contractual lease obligations. The future minimum committed income from the subleases is $7.3 million for 2011, $11.8 million for 2012 and 2013 and $6.7 million for 2014 and 2015. These amounts are not offset against our obligations set forth in the table above. See Note F, "Restructuring Expense," to our consolidated financial statements included in this Annual Report on Form 10-K.

We have entered into a letter of intent with respect to the potential lease of new facility to be built in Boston, Massachusetts. We have not yet, however, entered into a binding agreement with respect to

this facility and intend that material commitments with respect to a new facility will be contingent on obtaining approval to market telaprevir in the United States.

Commitments under research, development and commercial supply investment represent contractual commitments entered into for materials and services in the normal course of business.

Our table detailing contractual commitments and obligations does not include severance pay obligations to certain of our executive officers in the event of a not-for-cause employment termination under existing employment contracts.

Recent Accounting Pronouncements

Refer to Note B, "Accounting Policies," in the accompanying notes to the consolidated financial statements for a discussion of recent accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As part of our investment portfolio, we own financial instruments that are sensitive to market risks. The investment portfolio is used to preserve our capital until it is required to fund operations, including our research and development activities. None of these market risk-sensitive instruments are held for trading purposes. We do not have derivative financial instruments in our investment portfolio.

Interest Rate Risk

We invest our cash in a variety of financial instruments, principally securities issued by the United States government and its agencies, investment grade corporate bonds and commercial paper, and money market funds. These investments are denominated in United States dollars. All of our interest-bearing securities are subject to interest rate risk, and could decline in value if interest rates fluctuate. Substantially all of our investment portfolio consists of marketable securities with active secondary or resale markets to help ensure portfolio liquidity, and we have implemented guidelines limiting the term-to-maturity of our investment instruments. Due to the conservative nature of these instruments, we do not believe that we have 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-46 of this Annual Report on Form 10-K.

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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

(1) 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 controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this Annual Report on Form 10-K, have concluded that, based on such evaluation, the Company's disclosure controls and procedures were effective. 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 the Company's management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

(2) Management's Annual Report on Internal Control Over Financial Reporting. The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) and Rule 15d-15(f) promulgated under the Securities Exchange Act of 1934, as amended, as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers and effected by the Company's Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2010. In making this assessment, it used the criteria set forth in the Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on its assessment, the Company's management has concluded that, as of December 31, 2010, the Company's internal control over financial reporting is effective based on those criteria.

The Company's independent registered public accounting firm, Ernst & Young LLP, issued an attestation report on the Company's internal control over financial reporting. See Section 4 below.

(3) Changes in Internal Controls. During the quarter ended December 31, 2010, there were no changes in our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(4) Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of
Vertex Pharmaceuticals Incorporated

We have audited Vertex Pharmaceuticals Incorporated's internal control over financial reporting as of December 31, 2010, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Vertex Pharmaceuticals Incorporated's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Vertex Pharmaceuticals Incorporated maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Vertex Pharmaceuticals Incorporated as of December 31, 2010 and 2009, and the related consolidated statements of operations, stockholders' equity and comprehensive loss, and cash flows for each of the three years in the period ended December 31, 2010 of Vertex Pharmaceuticals Incorporated and our report dated February 17, 2011 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 17, 2011

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information regarding directors required by this Item 10 will be included in the definitive Proxy Statement for our 2011 Annual Meeting of Shareholders, or the 2011 Proxy Statement, under "Election of Directors," "Information Regarding our Board," "Shareholder Proposals for the 2011 Annual Meeting and Nominations for Director" and is incorporated herein by reference. Other information required by this Item 10 will be included in the 2011 Proxy Statement under "Section 16(a) Beneficial Ownership Reporting Compliance" and "Code of Conduct and Ethics" and is incorporated herein by reference. The information regarding executive officers required by this Item 10 as well as certain information regarding our directors is included in Part I of this Annual Report on Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 will be included in the 2011 Proxy Statement under "Compensation Committee Interlocks and Insider Participation," "Executive Compensation" and/or "Information Regarding our Board" and is incorporated herein by reference.

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

The information required by this Item 12 will be included in the 2011 Proxy Statement under "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item 13 will be included in the 2011 Proxy Statement under "Election of Directors" and "Executive Compensation-Approval of Related Person Transactions and Transactions with Related Persons" and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item 14 will be included in the 2011 Proxy Statement under "Independent Registered Public Accounting Firm" and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) The Financial Statements required to be filed by Items 8 and 15(c) of Form 10-K, and filed herewith, are as follows:

(a)(2) 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 listed in (a)(1) above.

(a)(3) Exhibits.

The following is a list of exhibits filed as part of this Annual Report on Form 10-K.

Exhibit Number	Exhibit Description	Filed with this report	Incorporated by Reference herein from—Form or Schedule	Filing Date/ Period Covered	SEC File/ Reg. Number
2.1	Share Purchase Agreement, dated March 3, 2009, by and among Vertex Pharmaceuticals Incorporated, Vertex Pharmaceuticals (Canada) Incorporated, ViroChem Pharma Inc. and the ViroChem Securityholders named therein.		8-K (Exhibit 2.1)	March 13, 2009	000-19319
3.1	Restated Articles of Organization of Vertex Pharmaceuticals Incorporated, as amended.		10-Q (Exhibit 3.1)	August 11, 2008	000-19319
3.2	By-laws of Vertex Pharmaceuticals Incorporated, as amended and restated as of May 11, 2005.		10-Q (Exhibit 3.1)	August 9, 2005	000-19319
4.1	Specimen stock certificate.		S-1 (Exhibit 4.1)	July 18, 1991	33-40966
4.2	Rights Agreement, dated as of July 1, 1991.		S-1 (Exhibit 4.2)	July 5, 1991	33-40966
4.3	First Amendment to Rights Agreement, dated as of February 21, 1997.		10-K (Exhibit 4.3)	March 28, 1997	000-19319
4.4	Second Amendment to Rights Agreement, dated as of June 30, 2001.		10-Q (Exhibit 4.4)	August 14, 2001	000-19319
4.5	Subordinated Indenture, dated as of September 28, 2010, by and between Vertex Pharmaceuticals Incorporated and U.S. Bank National Association, as trustee.		8-K (Exhibit 4.1)	September 29, 2010	000-19319
4.6	First Supplemental Indenture, dated as of September 28, 2010, by and between Vertex Pharmaceuticals Incorporated and U.S. Bank National Association, as trustee.		8-K (Exhibit 4.2)	September 29, 2010	000-19319

Exhibit Number	Exhibit Description	Filed with this report	Incorporated by Reference herein from—Form or Schedule	Filing Date/ Period Covered	SEC File/ Reg. Number
4.7	Form of 3.35% Convertible Senior Subordinated Note due 2015.		8-K (Exhibit 4.3)	September 29, 2010	000-19319
4.8	Indenture dated as of September 30, 2009 by and between Vertex Pharmaceuticals Incorporated and U.S. Bank National Association, as trustee and collateral agent.†		10-Q (Exhibit 4.1)	November 9, 2009	000-19319
4.9	Secured Notes due 2012.		10-Q (Exhibit 4.2)	November 9, 2009	000-19319
Collaboration Agreements					
10.1	License, Development, Manufacturing and Commercialization Agreement, dated June 30, 2006, by and between Vertex Pharmaceuticals Incorporated and Janssen Pharmaceutica, N.V.†		10-Q (Exhibit 10.1)	August 9, 2006	000-19319
10.2	License, Development and Commercialization Agreement, dated as of June 11, 2004, between Vertex Pharmaceuticals Incorporated and Mitsubishi Pharma Corporation.†		10-Q (Exhibit 10.1)	November 9, 2009	000-19319
10.3	Second Amendment to License, Development and Commercialization Agreement, dated July 30, 2009, between Mitsubishi Tanabe Pharma Corporation and Vertex Pharmaceuticals Incorporated.†		10-Q (Exhibit 10.2)	November 9, 2009	000-19319
10.4	Research Agreement and License Agreement, both dated December 16, 1993, between Vertex and Burroughs Wellcome Co.†		10-K (Exhibit 10.16)	Year Ended December 31, 1993	000-19319
10.5	Research, Development and Commercialization Agreement, dated as of May 24, 2004, between Vertex Pharmaceuticals Incorporated and Cystic Fibrosis Foundation Therapeutics Incorporated.†		8-K/A (Exhibit 99.2)	September 10, 2004	000-19319
10.6	Amendment No. 1 to Research, Development and Commercialization Agreement, dated as of January 6, 2006, between Vertex Pharmaceuticals Incorporated and Cystic Fibrosis Foundation Therapeutics Incorporated.†		10-K (Exhibit 10.9)	March 16, 2006	000-19319
10.7	Amendment No. 2 to Research, Development and Commercialization Agreement, dated as of March 17, 2006, between Vertex Pharmaceuticals Incorporated and Cystic Fibrosis Foundation Therapeutics Incorporated.†		10-Q (Exhibit 10.1)	May 10, 2006	000-19319
Financial Transactions					
10.8	Purchase Agreement, dated May 30, 2008, by and between Vertex Pharmaceuticals Incorporated and Fosamprenavir Royalty, L.P.		10-Q (Exhibit 10.2)	August 11, 2008	000-19319
10.9	Note Purchase Agreement dated September 30, 2009 by and between Vertex Pharmaceuticals Incorporated and Olmsted Park S.A.†		10-Q (Exhibit 10.3)	November 9, 2009	000-19319
10.10	Security Agreement dated September 30, 2009 between Vertex Pharmaceuticals Incorporated and U.S. Bank National Association, as collateral agent.†		10-Q (Exhibit 10.4)	November 9, 2009	000-19319
10.11	Purchase Agreement Regarding Milestone #9 dated September 30, 2009 by and between Vertex Pharmaceuticals Incorporated and Olmsted Park S.A.†		10-Q (Exhibit 10.5)	November 9, 2009	000-19319
10.12	Purchase Agreement Regarding Milestone #10 dated September 30, 2009 by and between Vertex Pharmaceuticals Incorporated and Olmsted Park S.A.†		10-Q (Exhibit 10.6)	November 9, 2009	000-19319

Exhibit Number	Exhibit Description	Filed with this report	Incorporated by Reference herein from—Form or Schedule	Filing Date/ Period Covered	SEC File/ Reg. Number
Leases					
10.13	Lease, dated as of March 3, 1995, between Fort Washington Realty Trust and Vertex.		10-K (Exhibit 10.15)	Year Ended December 31, 1994	000-19319
10.14	First Amendment to Lease, dated as of December 29, 1995, between Fort Washington Realty Trust and Vertex Pharmaceuticals Incorporated.		10-K (Exhibit 10.15)	Year Ended December 31, 1995	000-19319
10.15	Second Amendment to Lease, dated as of June 13, 1997, between Fort Washington Realty Trust and Vertex Pharmaceuticals Incorporated.		10-K (Exhibit 10.20)	March 26, 1998	000-19319
10.16	Third, Fourth and Fifth Amendments to Lease between Fort Washington Realty Trust and Vertex Pharmaceuticals Incorporated.†		10-K (Exhibit 10.14)	March 26, 2001	000-19319
10.17	Lease, dated as of September 17, 1999, between Trustees of Fort Washington Realty Trust and Vertex Pharmaceuticals Incorporated.†		10-Q (Exhibit 10.27)	November 15, 1999	000-19319
10.18	Lease, dated as of January 18, 2001, between Kendall Square, LLC and Vertex Pharmaceuticals Incorporated.†		10-K (Exhibit 10.16)	March 26, 2001	000-19319
10.19	Amendment to Lease, dated January 12, 2009, by and between BMR-200 Sidney Street LLC and Vertex Pharmaceuticals Incorporated.		10-Q (Exhibit 10.4)	May 11, 2009	000-19319
10.20	Amendment to Lease, dated January 12, 2009, by and between BMR-40 Erie Street LLC and Vertex Pharmaceuticals Incorporated.		10-Q (Exhibit 10.5)	May 11, 2009	000-19319
10.21	Agreement for Lease, dated as of November 4, 1998, between Milton Park Limited, Vertex Pharmaceuticals Incorporated and Vertex Pharmaceuticals (Europe) Limited.		10-K (Exhibit 10.21)	March 30, 1999	000-19319
10.22	Lease between MEPC Milton Park No.1 Limited and MEPC Milton Park No. 2 Limited, Vertex Pharmaceuticals (Europe) Limited and Vertex Pharmaceuticals Incorporated, dated June 10, 2009.		10-Q (Exhibit 10.1)	August 10, 2009	000-19319
Equity Plans					
10.23	1991 Stock Option Plan, as amended and restated as of September 14, 1999.*		10-K (Exhibit 10.1)	March 3, 2000	000-19319
10.24	1994 Stock and Option Plan, as amended and restated as of September 14, 1999.*		10-K (Exhibit 10.2)	March 3, 2000	000-19319
10.25	1996 Stock and Option Plan, as amended and restated as of March 14, 2005.*		10-K (Exhibit 10.3)	March 16, 2005	000-19319
10.26	Form of Stock Option Grant under 1996 Stock and Option Plan.*		8-K (Exhibit 10.1)	February 9, 2005	000-19319
10.27	Form of Restricted Stock Award under 1996 Stock and Option Plan—Annual Vesting.*		8-K (Exhibit 10.2)	February 9, 2005	000-19319
10.28	Form of Restricted Stock Agreement (Performance Accelerated Restricted Stock) under 1996 Stock and Option Plan.*		8-K (Exhibit 10.3)	February 9, 2005	000-19319
10.29	Amended and Restated 2006 Stock and Option Plan.*		10-Q (Exhibit 10.1)	August 3, 2010	000-19319
10.30	Form of Stock Option Grant under 2006 Stock and Option Plan.*		8-K (Exhibit 10.2)	May 15, 2006	000-19319
10.31	Form of Restricted Stock Award (Performance Accelerated Restricted Stock) under 2006 Stock and Option Plan.*		8-K (Exhibit 10.4)	May 15, 2006	000-19319

Exhibit Number	Exhibit Description	Filed with this report	Incorporated by Reference herein from—Form or Schedule	Filing Date/ Period Covered	SEC File/ Reg. Number
10.32	Vertex Pharmaceuticals Incorporated Employee Stock Purchase Plan, as amended and restated.*		10-Q (Exhibit 10.8)	August 11, 2008	000-19319
10.33	Form of Stock Option Grant-Performance Accelerated 2009 Stock-Options.*		10-K (Exhibit 10.33)	February 19, 2010	000-19319
Agreements with Executive Officers and Directors					
10.34	Agreement between Matthew W. Emmens and Vertex, dated February 5, 2009.*		8-K (Exhibit 10.1)	February 10, 2009	000-19319
10.35	Employee Non-disclosure, Non-competition and Inventions Agreement between Matthew W. Emmens and Vertex, dated February 5, 2009.*		8-K (Exhibit 10.2)	February 10, 2009	000-19319
10.36	Amended and Restated Employment Agreement, dated February 5, 2010, between Peter Mueller and Vertex.*		10-Q (Exhibit 10.1)	May 3, 2010	000-19319
10.37	Amended and Restated Change of Control Agreement, dated February 5, 2010, between Vertex and Peter Mueller.*		10-Q (Exhibit 10.2)	May 3, 2010	000-19319
10.38	Amended and Restated Employment Agreement, dated as of November 8, 2004, between Vertex and Ian F. Smith.*		10-Q (Exhibit 10.13)	November 9, 2004	000-19319
10.39	Amendment No. 1 to Amended and Restated Employment Agreement between Ian F. Smith and Vertex, dated December 29, 2008.*		10-K (Exhibit 10.66)	February 17, 2009	000-19319
10.40	Employment Agreement, dated as of December 9, 2009 between Vertex and Nancy Wysenski.*		10-K (Exhibit 10.42)	February 19, 2010	000-19319
10.41	Change of Control Agreement, dated as of December 9, 2009 between Vertex and Nancy Wysenski.*		10-K (Exhibit 10.43)	February 19, 2010	000-19319
10.42	Second Amended and Restated Employment Agreement, dated February 5, 2010, between Vertex and Kenneth S. Boger.*		10-Q (Exhibit 10.7)	May 3, 2010	000-19319
10.43	Amended and Restated Employment Agreement, dated February 5, 2010, between Lisa Kelly-Croswell and Vertex.*		10-Q (Exhibit 10.5)	May 3, 2010	000-19319
10.44	Amended and Restated Change of Control Agreement, dated February 5, 2010, between Vertex and Lisa Kelly-Croswell.*		10-Q (Exhibit 10.6)	May 3, 2010	000-19319
10.45	Amended and Restated Employment Agreement, dated February 5, 2010, between Amit Sachdev and Vertex.*		10-Q (Exhibit 10.3)	May 3, 2010	000-19319
10.46	Amended and Restated Change of Control Agreement, dated February 5, 2010, between Amit Sachdev and Vertex.*		10-Q (Exhibit 10.4)	May 3, 2010	000-19319
10.47	Form of Employee Non-Disclosure and Inventions Agreement.*		S-1 (Exhibit 10.4)	May 30, 1991	33-40966
10.48	Vertex Pharmaceuticals Incorporated Executive Compensation Program.*		10-Q (Exhibit 10.6)	May 12, 2008	000-19319
10.49	Vertex Employee Compensation Plan.*	X			
10.50	Vertex Pharmaceuticals Non-Employee Board Compensation.*	X			
21.1	Subsidiaries of Vertex Pharmaceuticals Incorporated.	X			
23.1	Consent of Independent Registered Public Accounting Firm Ernst & Young LLP.	X			

Exhibit Number	Exhibit Description	Filed with this report	Incorporated by Reference herein from—Form or Schedule	Filing Date/ Period Covered	SEC File/ Reg. Number
31.1	Certification of the Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.	X			
31.2	Certification of the Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.	X			
32.1	Certification of the Chief Executive Officer and the Chief Financial Officer under Section 906 of the Sarbanes-Oxley Act of 2002.	X			
101.INS	XBRL Instance**				
101.SCH	XBRL Taxonomy Extension Schema**				
101.CAL	XBRL Taxonomy Extension Calculation**				
101.LAB	XBRL Taxonomy Extension Labels**				
101.PRE	XBRL Taxonomy Extension Presentation**				
101.DEF	XBRL Taxonomy Extension Definition**				

* Management contract, compensatory plan or agreement.

** Pursuant to applicable securities laws and regulations, we will be deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and will not be subject to liability under any anti-fraud provisions of the federal securities laws with respect to such interactive data files as long as we have made a good faith attempt to comply with the submission requirements and promptly amend the interactive data files after becoming aware that the interactive data files fail to comply with the submission requirements. Users of this data are advised that, pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed and otherwise are not subject to liability, except as provided by applicable securities laws and regulations.

† Confidential portions of this document have been filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

VERTEX PHARMACEUTICALS INCORPORATED

February 17, 2011 By: /s/ MATTHEW W. EMMENS

Matthew W. Emmens
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name	Title	Date
/s/ MATTHEW W. EMMENS Matthew W. Emmens	Chief Executive Officer, Chairman of the Board and President (Principal Executive Officer)	February 17, 2011
/s/ IAN F. SMITH Ian F. Smith	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 17, 2011
/s/ PAUL M. SILVA Paul M. Silva	Vice President and Corporate Controller (Principal Accounting Officer)	February 17, 2011
/s/ JEFFREY M. LEIDEN Jeffrey M. Leiden	Lead Independent Director	February 17, 2011
/s/ JOSHUA S. BOGER Joshua S. Boger	Director	February 17, 2011
/s/ STUART J.M. COLLINSON Stuart J.M. Collinson	Director	February 17, 2011
/s/ EUGENE H. CORDES Eugene H. Cordes	Director	February 17, 2011
/s/ WAYNE J. RILEY Wayne J. Riley	Director	February 17, 2011
/s/ BRUCE I. SACHS Bruce I. Sachs	Director	February 17, 2011
/s/ ELAINE S. ULLIAN Elaine S. Ullian	Director	February 17, 2011
/s/ DENNIS L. WINGER Dennis L. Winger	Director	February 17, 2011

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of
Vertex Pharmaceuticals Incorporated

We have audited the accompanying consolidated balance sheets of Vertex Pharmaceuticals Incorporated as of December 31, 2010 and 2009, and the related consolidated statements of operations, stockholders' equity and comprehensive loss, and cash flows for each of the three years in the period ended December 31, 2010. 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 the standards of the Public Company Accounting Oversight Board (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 consolidated financial position of Vertex Pharmaceuticals Incorporated at December 31, 2010 and 2009, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2010, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Vertex Pharmaceuticals Incorporated's internal control over financial reporting as of December 31, 2010, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 17, 2011 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 17, 2011

VERTEX PHARMACEUTICALS INCORPORATED

Consolidated Balance Sheets

(in thousands, except share and per share amounts)

	December 31, 2010	December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	$ 243,197	$ 446,658
Marketable securities, available for sale	788,214	838,255
Accounts receivable	12,529	9,601
Prepaid expenses and other current assets	13,099	12,512
Total current assets	1,057,039	1,307,026
Restricted cash	34,090	30,313
Property and equipment, net	72,333	62,279
Intangible assets	518,700	518,700
Goodwill	26,102	26,102
Other assets	17,182	11,068
Total assets	$ 1,725,446	$ 1,955,488
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 35,851	$ 36,989
Accrued expenses and other current liabilities	134,414	118,753
Accrued interest	3,462	571
Deferred revenues, current portion	74,619	74,956
Accrued restructuring expense, current portion	5,497	6,316
Convertible senior subordinated notes (due 2013), current portion	—	32,071
Secured notes (due 2012), current portion	136,991	—
Liability related to sale of potential future milestone payments, current portion	77,799	—
Other obligations	6,150	15,227
Total current liabilities	474,783	284,883
Deferred revenues, excluding current portion	160,049	225,575
Accrued restructuring expense, excluding current portion	24,098	27,701
Convertible senior subordinated notes (due 2015)	400,000	—
Secured notes (due 2012), excluding current portion	—	121,765
Liability related to sale of potential future milestone payments, excluding current portion	—	38,207
Deferred tax liability	160,278	160,278
Other liabilities	2,265	733
Total liabilities	1,221,473	859,142
Commitments and contingencies (Note K and Note T)		
Stockholders' equity:		
Preferred stock, $0.01 par value; 1,000,000 shares authorized; none issued and outstanding at December 31, 2010 and 2009	—	—
Common stock, $0.01 par value; 300,000,000 shares authorized at December 31, 2010 and 2009; 203,522,976 and 199,955,023 shares issued and outstanding at December 31, 2010 and 2009, respectively	2,016	1,982
Additional paid-in capital	3,947,433	3,784,787
Accumulated other comprehensive loss	(1,067)	(640)
Accumulated deficit	(3,444,409)	(2,689,783)
Total stockholders' equity	503,973	1,096,346
Total liabilities and stockholders' equity	$ 1,725,446	$ 1,955,488

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

VERTEX PHARMACEUTICALS INCORPORATED

Consolidated Statements of Operations

(in thousands, except per share amounts)

	Year Ended December 31,		
	2010	2009	2008
Revenues:			
Royalty revenues	$ 30,244	$ 28,320	$ 37,483
Collaborative revenues	113,126	73,569	138,021
Total revenues	143,370	101,889	175,504
Costs and expenses:			
Royalty expenses	12,730	14,202	15,686
Research and development expenses	637,416	550,274	516,912
Sales, general and administrative expenses	187,800	130,192	101,290
Restructuring expense	1,501	6,240	4,324
Intangible asset impairment charges	—	7,200	—
Acquisition-related expenses	—	7,793	—
Total costs and expenses	839,447	715,901	638,212
Loss from operations	(696,077)	(614,012)	(462,708)
Interest income	1,955	5,010	16,328
Interest expense	(19,275)	(13,192)	(13,471)
Change in fair value of derivative instruments	(41,229)	(1,847)	—
Loss on exchanges of convertible senior subordinated notes (due 2013)	—	(18,137)	—
Net loss	$ (754,626)	$ (642,178)	$ (459,851)
Basic and diluted net loss per common share	$ (3.77)	$ (3.71)	$ (3.27)
Basic and diluted weighted-average number of common shares outstanding	200,402	173,259	140,556

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

VERTEX PHARMACEUTICALS INCORPORATED

Consolidated Statements of Stockholders' Equity and Comprehensive Loss

(in thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity	Comprehensive Income (Loss)
	Shares	Amount					
Balance, December 31 2007	132,876	$ 1,312	$ 1,856,856	$ 881	$ (1,587,754)	$ 271,295	
Unrealized holding gains on marketable securities				3,683		3,683	$ 3,683
Reclassification adjustment for realized loss on marketable securities included in net loss				(1,242)		(1,242)	(1,242)
Translation adjustments				(154)		(154)	(154)
Net loss					(459,851)	(459,851)	(459,851)
Comprehensive loss							$ (457,564)
Issuances of common stock:							
Equity offerings	15,525	155	329,990			330,145	
Benefit plans	2,844	27	36,986			37,013	
Stock-based compensation expense			57,985			57,985	
Balance, December 31 2008	151,245	$ 1,494	$ 2,281,817	$ 3,168	$ (2,047,605)	$ 238,874	
Unrealized holding losses on marketable securities				(3,178)		(3,178)	$ (3,178)
Translation adjustments				(630)		(630)	(630)
Net loss					(642,178)	(642,178)	(642,178)
Comprehensive loss							$ (645,986)
Issuances of common stock:							
Convertible senior subordinated notes (due 2013) exchanges	11,582	116	270,776			270,892	
Acquisition of ViroChem	10,734	107	290,450			290,557	
Equity offerings	23,000	230	801,155			801,385	
Benefit plans	3,394	35	53,867			53,902	
Stock-based compensation expense			86,722			86,722	
Balance, December 31 2009	199,955	$ 1,982	$ 3,784,787	$ (640)	$ (2,689,783)	$ 1,096,346	
Unrealized holding gains on marketable securities				46		46	$ 46
Translation adjustments				(473)		(473)	(473)
Net loss					(754,626)	(754,626)	(754,626)

Comprehensive loss							$ (755,053)
Issuances of common stock:							
Convertible senior subordinated notes (due 2013) conversion	1,386	14	31,551			31,565	
Benefit plans	2,182	20	39,971			39,991	
Stock-based compensation expense			91,124			91,124	
Balance, December 31 2010	203,523	$ 2,016	$ 3,947,433	$ (1,067)	$ (3,444,409)	$ 503,973	

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

VERTEX PHARMACEUTICALS INCORPORATED

Consolidated Statements of Cash Flows

(in thousands)

	Year Ended December 31,		
	2010	2009	2008
Cash flows from operating activities:			
Net loss	$ (754,626)	$ (642,178)	$ (459,851)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization expense	30,459	30,107	32,196
Stock-based compensation expense	91,124	86,722	57,985
Other non-cash based compensation expense	6,552	6,044	5,027
Intangible asset impairment charges	—	7,200	—
Secured notes (due 2012) discount amortization expense	13,589	3,125	—
Change in fair value of derivative instruments	41,229	1,847	—
Change in deferred tax liability	—	(2,225)	—
Loss on disposal of property and equipment	39	2,211	11
Realized gain on marketable securities	—	—	(633)
Loss on exchanges of convertible senior subordinated notes (due 2013)	—	18,137	—
Other non-cash expenses, net	(31)	—	—
Changes in operating assets and liabilities, excluding the effect of an acquisition:			
Accounts receivable	(2,923)	13,900	7,831
Prepaid expenses and other current assets	(600)	2,070	(7,331)
Accounts payable	(1,182)	(15,057)	19,010
Accrued expenses and other liabilities	8,182	8,924	58
Accrued restructuring expense	(4,422)	(47)	(1,228)
Accrued interest	3,031	(1,423)	5,349
Deferred revenues	(65,863)	53,057	115,094
Net cash used in operating activities	(635,442)	(427,586)	(226,482)
Cash flows from investing activities:			
Purchases of marketable securities	(1,234,719)	(1,186,701)	(755,422)
Sales and maturities of marketable securities	1,284,806	788,263	427,648
Payment for the acquisition of ViroChem, net of cash acquired	—	(87,422)	—
Expenditures for property and equipment	(38,054)	(23,496)	(32,180)
Increase in restricted cash	(3,777)	(55)	—
(Increase) decrease in other assets	(955)	679	(696)
Net cash provided by (used in) investing activities	7,301	(508,732)	(360,650)
Cash flows from financing activities:			
Issuances of common stock from employee benefit plans, net	33,434	47,850	31,983
Issuances of common stock from stock offerings, net	—	801,385	330,145
Issuances of convertible senior subordinated notes, net	391,645	—	278,607
Issuance of secured notes (due 2012) and sale of potential future milestone payments, net	—	149,902	—
Repayment of collaborator development loan (due 2008)	—	—	(19,997)
Debt conversion/exchange costs	(22)	(131)	—
Net cash provided by financing activities	425,057	999,006	620,738
Effect of changes in exchange rates on cash	(377)	(5,145)	(154)
Net (decrease) increase in cash and cash equivalents	(203,461)	57,543	33,452
Cash and cash equivalents—beginning of period	446,658	389,115	355,663
Cash and cash equivalents—end of period	$ 243,197	$ 446,658	$ 389,115
Supplemental disclosure of cash flow information:			
Cash paid for interest	$ 761	$ 10,248	$ 6,676
Cash paid for taxes	$ —	$ —	$ —
Conversion/exchange of convertible senior subordinated notes (due 2013) for common stock	$ 32,071	$ 255,429	$ —
Accrued interest offset to additional paid-in capital on conversion/exchange of convertible senior subordinated notes (due 2013)	$ 140	$ 3,355	$ —
Unamortized debt issuance costs of converted/exchanged convertible senior subordinated notes (due 2013) offset to additional paid-in capital	$ 624	$ 5,899	$ —
Fair value of common stock issued to acquire ViroChem	$ —	$ 290,557	$ —

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

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements

A. The Company

Vertex Pharmaceuticals Incorporated ("Vertex" or the "Company") is in the business of discovering, developing and commercializing small molecule drugs for the treatment of serious diseases. Telaprevir, the Company's lead drug candidate, is an oral hepatitis C protease inhibitor. In November 2010, the Company submitted a new drug application ("NDA") requesting approval to market telaprevir in the United States for the treatment of patients with chronic hepatitis C virus infection. In January 2011, the Company received priority review designation for its telaprevir NDA from the United States Food and Drug Administration (the "FDA"), and the target date for the FDA to complete its review of the telaprevir NDA is May 23, 2011. The Company also is developing, among other drug candidates, VX-770, which is being evaluated in a registration program focused on patients with cystic fibrosis who have the G551D mutation in the gene responsible for cystic fibrosis.

The Company's net loss for 2010 was $754.6 million, or $3.77 per basic and diluted common share, and the Company expects to incur operating losses at least until it obtains marketing approval and successfully commercializes telaprevir. As of December 31, 2010, the Company had cash, cash equivalents and marketable securities of $1.0 billion. The Company expects that the Company's current cash, cash equivalents and marketable securities will be sufficient to fund its operations for at least the next twelve months.

Vertex is subject to risks common to companies in its industry including, but not limited to, the dependence on the success of the Company's lead drug candidate, uncertainty about clinical trial outcomes, limited experience in drug development, manufacturing, and sales and marketing, rapid technological change and competition, uncertain protection of proprietary technology, the need to comply with government regulations, share price volatility, uncertainties relating to pharmaceutical pricing and reimbursement, dependence on collaborative relationships and potential product liability.

On March 12, 2009, Vertex acquired ViroChem Pharma Inc. ("ViroChem"). The Company consolidated ViroChem's operating results with those of Vertex beginning on the date of the acquisition. See Note P, "Acquisition of ViroChem Pharma Inc.," for further information regarding the acquisition.

B. Accounting Policies

Basis of Presentation

The consolidated financial statements reflect the operations of the Company and its wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated. The Company operates in one segment, pharmaceuticals, and all revenues are from United States operations.

Use of Estimates

The preparation of consolidated financial statements in conformity with United States generally accepted accounting principles 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 amounts of revenues and expenses during the reported periods. Significant estimates in these consolidated financial statements have been made in connection with the calculation of revenues, research and development expenses, stock-based compensation expense, pre-approval inventories, restructuring expense, the value of intangible assets,

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

B. Accounting Policies (Continued)

derivative instruments and debt securities. The Company bases its estimates on historical experience and various other assumptions, including in certain circumstances future projections, that management believes to be reasonable under the circumstances. Actual results could differ from those estimates. Changes in estimates are reflected in reported results in the period in which they become known.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of money market funds and marketable securities. The Company places these investments with 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 these 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 exchange hedging arrangements.

The Company's revenues have been generated from a limited number of collaborators in the biotechnology and pharmaceuticals industries in the United States, Europe and Japan. In 2010, the Company had significant revenue transactions with Mitsubishi Tanabe Pharma Corporation ("Mitsubishi Tanabe") and Janssen Pharmaceutica, N.V. ("Janssen") that accounted for 57% and 21%, respectively, of the Company's total revenues. In 2009, the Company had significant revenue transactions with Janssen and Mitsubishi Tanabe that accounted for 54% and 18%, respectively, of the Company's total revenues. In 2008, the Company had significant revenue transactions with Janssen that accounted for 68% of the Company's total revenues.

Receivables from Mitsubishi Tanabe, GlaxoSmithKline plc and Janssen represented 55%, 23% and 12%, respectively, of the Company's accounts receivable balance at December 31, 2010. Receivables from Janssen, GlaxoSmithKline plc and Mitsubishi Tanabe represented 36%, 36% and 15%, respectively, of the Company's accounts receivable balance at December 31, 2009. Management believes that credit risks associated with these collaborators are not significant.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less at the date of purchase to be cash equivalents. Cash equivalents consist principally of money market funds and debt securities. 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 U.S. Treasuries, government-sponsored enterprise securities and high-grade corporate bonds and commercial paper that are classified as available-for-sale. The Company classifies marketable securities available to fund current operations as current assets on the consolidated balance sheets. Marketable securities are classified as long-term assets on the consolidated balance sheets if (i) they have been in an unrealized loss position for longer than one year and (ii) the Company has the ability and intent to hold them (a) until the carrying value is recovered and (b) such holding period may be longer than one year. Marketable securities are stated at fair value with their unrealized gains and losses included as a component of accumulated other comprehensive income (loss), which is a separate component of stockholders' equity, until such gains and losses are

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

B. Accounting Policies (Continued)

realized. The fair value of these securities is based on quoted prices for identical or similar assets. 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 statements of operations. There were no charges taken for other than temporary declines in fair value of marketable securities in 2010, 2009 or 2008. Realized gains and losses are determined on the specific identification method and are included in interest income in the consolidated statements of operations. Please refer to Note G, "Marketable Securities," for further information.

Stock-based Compensation Expense

The Company expenses the fair value of employee stock options and other forms of stock-based employee compensation over the associated employee service period or for awards with market conditions, the derived service period. For awards with performance conditions, the Company makes estimates regarding the likelihood of satisfaction of the performance conditions that affect the period over which the expense is recognized. Compensation expense is determined based on the fair value of the award at the grant date, including estimated forfeitures, and is adjusted to reflect actual forfeitures and the outcomes of certain market and performance conditions. Please refer to Note D, "Stock-based Compensation Expense," for further information.

Research and Development Expenses

All research and development expenses, including amounts funded by research and development collaborations, are expensed as incurred. The Company defers and capitalizes nonrefundable advance payments made by the Company for research and development activities until the related goods are delivered or the related services are performed.

Research and development expenses are comprised of costs incurred by the Company in performing research and development activities, including salary and benefits; stock-based compensation expense; laboratory supplies and other direct expenses; contractual services costs, including clinical trial and pharmaceutical development costs; expenses associated with commercial supply investment in its drug candidates; and infrastructure costs, including facilities costs and depreciation expense. The Company evaluates periodically whether a portion of its commercial supply investment may be capitalized as inventory. Generally, inventory may be capitalized if it is probable that future revenues will be generated from the sale of the inventory and that these revenues will exceed the cost of the inventory. In 2010, the Company continued to expense all of its commercial supply investment due to the high risk inherent in drug development.

The Company's collaborators have funded portions of the Company's research and development programs related to specific drug candidates and research targets, including telaprevir in 2010 and 2009; and telaprevir, certain kinases and certain cystic fibrosis research targets in 2008. The Company's collaborative revenues were $113.1 million, $73.6 million and $138.0 million, respectively, for 2010, 2009 and 2008. The Company's research and development expenses allocated to programs in which a collaborator funded at least a portion of the research and development expenses were approximately $156 million, approximately $149 million and approximately $156 million, respectively, for 2010, 2009 and 2008.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

B. Accounting Policies (Continued)

Pre-approval Inventories

The Company capitalizes inventories produced in preparation for initiating sales of a drug candidate when the related drug candidate is considered to have a high probability of regulatory approval and the related costs are expected to be recoverable through sales of the drug. As of December 31, 2010, the Company had not yet capitalized any inventory costs for telaprevir manufactured in preparation for its expected product launch in 2011. The Company has submitted its NDA for telaprevir to the FDA, and the target date for the FDA to complete its review of the telaprevir NDA is May 23, 2011. The Company expects to begin to capitalize inventory costs for telaprevir in 2011.

Restructuring Expense

The Company records costs and liabilities associated with exit and disposal activities based on estimates of fair value in the period the liabilities are incurred. In periods subsequent to initial measurement, changes to the liability are measured using the credit-adjusted risk-free discount rate applied in the initial period. Liabilities are evaluated and adjusted as appropriate for changes in circumstances at least on a quarterly basis. Please refer to Note F, "Restructuring Expense," for further information.

Revenue Recognition

Collaborative Revenues

The Company's revenues are generated primarily through collaborative research, development and/or commercialization agreements. The terms of these agreements typically include payment to the Company of one or more of the following: nonrefundable, up-front license fees; milestone payments; funding of research and/or development activities; payments for services the Company provides through its third-party manufacturing network; and royalties on product sales. Each of these types of payments results in collaborative revenues, except for revenues from royalties on product sales, which are classified as royalty revenues.

Agreements containing multiple elements are divided into separate units of accounting if certain criteria are met, including whether the delivered element has stand-alone value to the collaborator and whether there is objective and reliable evidence of the fair value of the undelivered obligation(s). The consideration received is allocated among the separate units either on the basis of each unit's fair value or using the residual method, and the applicable revenue recognition criteria are applied to each of the separate units.

Up-front License Fees

The Company recognizes revenues from nonrefundable, up-front license fees on a straight-line basis over the contracted or estimated period of performance, which is typically the period over which the research and development is expected to occur or manufacturing services are expected to be provided. In order to estimate the period of performance, the Company is required to make estimates regarding the drug development and commercialization timelines for drug candidates being developed pursuant to the applicable agreement. The Company's estimates regarding the period of performance under certain of its collaboration agreements have changed in the past and may change in the future.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

B. Accounting Policies (Continued)

Milestone Payments

At the inception of each agreement that includes milestone payments, the Company evaluates whether each milestone is substantive on the basis of the contingent nature of the milestone, specifically reviewing factors such as the scientific and other risks that must be overcome to achieve the milestone, as well as the level of effort and investment required. The Company recognizes revenues related to substantive milestones in full in the period in which the substantive milestone is achieved, if payment is reasonably assured and the Company's performance obligations are fully satisfied or if the Company has fair value for its remaining obligations. If the Company has remaining obligations after the achievement of a substantive milestone and does not have sufficient evidence of the fair value of those obligations, the milestone payment is recognized over the period of performance. If a milestone payment is not considered substantive, the Company recognizes the applicable milestone over the remaining period of performance.

Research and Development Activities/Manufacturing Services

Under certain of its collaboration agreements, the Company is entitled to reimbursement from its collaborators for specified research and development expenses and/or payments for specified manufacturing services that the Company provides through its third-party manufacturing network. The Company considers the nature and contractual terms of the arrangement and the nature of the Company's business operations in order to determine whether research and development funding will result in collaborative revenues or an offset to research and development expenses. The Company typically recognizes the revenues related to these reimbursable expenses and manufacturing services in the period in which the reimbursable expenses are incurred or the manufacturing services are provided.

Royalty Revenues

Royalty revenues typically are recognized based upon actual and estimated net sales of licensed products in licensed territories, as provided by the licensee, and generally are recognized in the period the sales occur. The Company reconciles and adjusts for differences between actual royalty revenues and estimated royalty revenues in the quarter they become known. These differences historically have not been significant.

The Company has sold its rights to certain royalties on sales of HIV protease inhibitors and recognizes the revenues related to this sale as royalty revenues. In the circumstance where the Company has sold its rights to future royalties under a license agreement and also maintains continuing involvement in the royalty arrangement (but not significant continuing involvement in the generation of the cash flows due to the purchaser of the future royalty rights), the Company defers recognition of the proceeds it receives for the royalty stream and recognizes these deferred revenues over the life of the license agreement. The Company recognizes these deferred revenues pursuant to the units-of-revenue method. Under this method, the amount of deferred revenues to be recognized as royalty revenues in each period is calculated by multiplying the following: (1) the royalty payments due to the purchaser for the period by (2) the ratio of the remaining deferred revenue amount to the total estimated remaining royalty payments due to the purchaser over the term of the agreement. The Company's estimates regarding the estimated remaining royalty payments due to the purchaser have changed in the past and may change in the future.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

B. Accounting Policies (Continued)

Property and Equipment

Property and equipment are recorded at cost. Depreciation and amortization is provided using the straight-line method over the estimated useful life of the related asset, generally four to seven years for furniture and equipment and three to five years for computers and software. Leasehold improvements are amortized using the straight-line method over the lesser of the useful life of the improvements or the remaining life of the associated lease. Major additions and betterments are capitalized. Maintenance and repairs to an asset that do not improve or extend its life 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 statements of operations.

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 available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

Financial Transaction Expenses

Issuance costs incurred to complete the Company's convertible senior subordinated note offerings and the financial transactions that the Company entered into in September 2009 are deferred and included in other assets on the Company's consolidated balance sheets. The issuance costs are amortized using the effective interest rate method over the term of the related debt or financial instrument. The amortization expense related to the issuance costs is included in interest expense on the consolidated statements of operations.

The Company defers direct and incremental costs associated with the sale of its rights to future royalties. These costs are included in other assets on the Company's consolidated balance sheets and are amortized in the same manner and over the same period during which the related deferred revenues are recognized as royalty revenues. The amortization expense related to these transaction expenses is included in royalty expenses on the consolidated statements of operations.

Expenses incurred in connection with common stock issuances are recorded as an offset to additional paid-in capital on the consolidated balance sheets.

Business Combinations

The Company assigns the value of the consideration transferred to acquire a business to the tangible assets and identifiable intangible assets acquired and liabilities assumed on the basis of their fair values at the date of acquisition. The Company assesses the fair value of assets, including intangible assets such as in-process research and development assets, using a variety of methods. Each asset is measured at fair value from the perspective of a market participant. The present-value models used to estimate the fair values of in-process research and development assets incorporate significant assumptions regarding the estimates that market participants would make in order to evaluate an asset: including market participants' assumptions regarding the probability of completing in-process research and development projects, which would require obtaining regulatory approval for marketing of the

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

B. Accounting Policies (Continued)

associated drug candidate; market participants' estimates regarding the timing of and the expected costs to complete in-process research and development projects; market participants' estimates of future cash flows from potential product sales; and the appropriate discount rates for market participants. Transaction costs and restructuring costs associated with the transaction are expensed as incurred.

In-process Research and Development Assets

In-process research and development assets acquired in a business combination are recorded as of the acquisition date at fair value and accounted for as indefinite-lived intangible assets. These assets are maintained on the Company's consolidated balance sheets until either the project underlying them is completed or the assets become impaired. If a project is completed, the carrying value of the related intangible asset is amortized as a part of cost of revenues over the remaining estimated life of the asset beginning in the period in which the project is completed. If a project becomes impaired or is abandoned, the carrying value of the related intangible asset is written down to its fair value and an impairment charge is taken in the period in which the impairment occurs. In-process research and development assets relate to the Company's acquisition of ViroChem in March 2009. In-process research and development assets are tested for impairment on an annual basis as of October 1, and more frequently if indicators are present or changes in circumstances suggest that impairment may exist.

Goodwill

The difference between the purchase price and the fair value of assets acquired and liabilities assumed in a business combination is allocated to goodwill. Goodwill relates to the Company's acquisition of ViroChem in March 2009. Goodwill is evaluated for impairment on an annual basis as of October 1, and more frequently if indicators are present or changes in circumstances suggest that impairment may exist.

Derivative Instruments and Embedded Derivatives

The Company has entered into financial transactions involving a free-standing derivative instrument and embedded derivatives. These financial transactions include arrangements involving secured notes, the sale of potential future milestone payments and senior subordinated convertible notes. The embedded derivatives are required to be bifurcated from the host instruments because the derivatives are not clearly and closely related to the host instruments. The Company determines the fair value of each derivative instrument or embedded derivative on the date of issuance. The estimates of the fair value of these derivatives, particularly with respect to derivatives related to the achievement of milestones in the development of telaprevir, include significant assumptions regarding the estimates market participants would make in order to evaluate these derivatives. Changes in the fair value of these derivatives are evaluated on a quarterly basis. Please refer to Note Q, "September 2009 Financial Transactions," for further information.

Comprehensive Loss

Comprehensive loss consists of net loss and other comprehensive income (loss), which includes foreign currency translation adjustments, reclassification adjustment for realized gain (loss) on marketable securities included in net loss, and unrealized gains and losses on certain marketable securities. For purposes of comprehensive loss disclosures, the Company does not record tax provisions

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

B. Accounting Policies (Continued)

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

All consolidated entities have the U.S. dollar as their functional currency except the functional currency of the Company's United Kingdom subsidiary for all periods and the Company's Canadian subsidiaries prior to January 1, 2010 is the local currency. Non-U.S. dollar functional currency subsidiaries have assets and liabilities translated into U.S. dollars at rates of exchange in effect at the end of the year. Revenue and expense amounts are translated using the average exchange rates for the period. Net unrealized gains and losses resulting from foreign currency translation are included in accumulated other comprehensive income (loss), which is a separate component of stockholders' equity. Included in accumulated other comprehensive income (loss) is a net unrealized loss related to foreign currency translation of $1.1 million at December 31, 2010, a net unrealized loss related to foreign currency translation of $0.6 million at December 31, 2009 and a net unrealized gain related to foreign currency translation of $27,000 at December 31, 2008.

Basic and Diluted Net Loss per Common Share

Basic net loss per common share is based upon the weighted-average number of common shares outstanding during the period, excluding restricted stock and restricted stock units that have been issued but are not yet vested. Diluted net loss per common 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 dilutive. Common equivalent shares result from the assumed 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), the assumed conversion of convertible notes and the vesting of unvested restricted stock and restricted stock units. Common equivalent shares have not been included in the net loss per common share calculations because the effect would have been anti-dilutive. Total potential gross common equivalent shares consisted of the following:

	At December 31,		
	2010	2009	2008
	(in thousands, except per share amounts)		
Stock options	21,293	19,232	16,497
Weighted-average exercise price (per share)	$ 30.50	$ 31.38	$ 29.16
Convertible senior subordinated notes	8,192	1,386	12,425
Conversion price (per share)	$ 48.83	$ 23.14	$ 23.14
Unvested restricted stock and restricted stock units	1,950	1,727	1,851

Recent Accounting Pronouncements

In December 2010, the Financial Accounting Standards Board ("FASB") provided guidance to clarify how pharmaceutical manufacturers should recognize and classify in their consolidated statements of operations the fees mandated by the recently enacted Patient Protection and Affordable Care Act as amended by the Health Care and Education Reconciliation Act. The fees are not tax deductible and are imposed on manufacturers annually based on their share of the pharmaceutical industry's branded drug sales for the preceding year. The portion allocated to an individual manufacturer becomes payable

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

B. Accounting Policies (Continued)

to the U.S. Treasury once the manufacturer has qualifying gross receipts from branded prescription drug sales. The liability for the fee will be estimated and recorded in full upon the first qualifying sale with a corresponding deferred cost that is amortized to expense using a straight-line method of allocation unless another method better allocates the fee over the calendar year in which it is payable. The annual fee will be presented as an operating expense. The guidance became effective for the Company on January 1, 2011. As this guidance relates only to classification, the adoption of this guidance will not have an effect on the Company's consolidated financial statements.

In April 2010, FASB provided updated guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research and development transactions. The update became effective and was adopted by the Company on a prospective basis for milestones achieved beginning on January 1, 2011. The updated guidance is consistent with the accounting policies that the Company has used with respect to the recognition of milestone revenues during the three year period ending December 31, 2010.

In September 2009, the FASB provided updated guidance (1) on whether multiple deliverables exist, how the deliverables in a revenue arrangement should be separated and how the consideration should be allocated; (2) requiring companies to allocate revenues in an arrangement using estimated selling prices of deliverables if a vendor does not have vendor-specific objective evidence or third-party evidence of selling price; and (3) eliminating the use of the residual method and requiring companies to allocate revenues using the relative selling price method. The updated guidance became effective for the Company on January 1, 2011. The Company adopted the updated guidance on a prospective basis and it will apply to revenue arrangements entered into or materially modified after December 31, 2010.

C. Preferred Stock, Common Stock and Equity Plans

The Company is authorized to issue 1,000,000 shares of preferred stock in one or more series and to fix the powers, designations, preferences and relative participating, option or other rights thereof, including dividend rights, conversion rights, voting rights, redemption terms, liquidation preferences and the number of shares constituting any series, without any further vote or action by the Company's shareholders. As of December 31, 2010 and 2009, the Company had no shares of preferred stock issued or outstanding.

The Company is authorized to issue 300,000,000 shares of common stock. Holders of common stock are entitled to one vote per share. Holders of common stock are entitled to receive dividends, if and when declared by the Board of Directors, and to share ratably in the Company's assets legally available for distribution to the Company's shareholders in the event of liquidation. Holders of common stock have no preemptive, subscription, redemption or conversion rights. The holders of common stock do not have cumulative voting rights.

Stock and Option Plans

The purpose of each of the Company's stock and option plans is to attract, retain and motivate its employees, consultants and directors. Awards granted under these plans can be incentive stock options ("ISOs"), nonstatutory stock options ("NSOs"), restricted stock ("RSs"), restricted stock units ("RSUs") or other equity-based awards, as specified in the individual plans.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

C. Preferred Stock, Common Stock and Equity Plans (Continued)

Shares issued under all of the Company's plans are funded through the issuance of new shares. The following table contains information about the Company's equity plans:

			As of December 31, 2010	
Title of Plan	**Group Eligible**	**Type of Award Granted**	**Awards Outstanding**	**Additional Awards Authorized for Grant**
2006 Stock and Option Plan	Employees, Non-employee Directors and Consultants	NSO, ISO, RS and RSU	15,910,307	13,597,314
1996 Stock and Option Plan	Employees, Non-employee Directors, Advisors and Consultants	NSO, ISO, RS	5,177,971	—
1994 Stock and Option Plan	Employees, Non-employee Directors, Advisors and Consultants	NSO, ISO	76,100	—
1991 Stock and Option Plan	Employees and Consultants	NSO, ISO	3,800	—
Other(1)	Employees, Non-employee Directors and Consultants	NSO, ISO	143,458	—
Total			21,311,636	13,597,314

(1) Consists of options outstanding on December 31, 2010 that were assumed by the Company in connection with its acquisition of Aurora Biosciences Corporation in 2001.

All options granted under the Company's 2006 Stock and Option Plan ("2006 Plan") and 1996 Stock and Option Plan were granted with an exercise price equal to the fair value of the underlying common stock on the date of grant. As of December 31, 2010, the only stock and option plan under which the Company makes new equity awards is the Company's 2006 Plan. Under amendments to the 2006 Plan adopted in 2008, no stock options can be awarded with an exercise price less than the fair market value on the date of grant. The Company's shareholders approved increases in the number of shares authorized for issuance pursuant to the 2006 Plan of 12,000,000 shares, 7,700,000 shares and 6,600,000 shares, respectively, in 2010, 2009 and 2008.

During the three years ended December 31, 2010, grants to current employees and directors had a grant date that was the same as the date the award was approved by the Company's Board of Directors. During the three years ended December 31, 2010, for grants to new employees and directors, the date of grant for awards was the employee's first day of employment or the date the director was elected to the Company's Board of Directors. All options awarded under the Company's stock and option plans expire not more than ten years from the grant date.

During the three years ended December 31, 2010, all shares of outstanding restricted stock and restricted stock units have been granted at price equal to $0.01, the par value of the Company's common stock. Vesting of options, restricted stock and restricted stock units generally is ratable over specified periods, usually four years, and is determined by the Company's Board of Directors.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

C. Preferred Stock, Common Stock and Equity Plans (Continued)

The following table summarizes information related to the outstanding and vested options during the year ended December 31, 2010:

	Stock Options (in thousands)	Weighted-average Exercise Price (per share)	Weighted-average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 3 2009	19,232	$ 31.38		
Granted	4,621	36.76		
Exercised	(866)	25.65		
Forfeited	(332)	33.46		
Expired	(1,362)	66.55		
Outstanding at December 3 2010	21,293	$ 30.50	6.72	$ 116,206
Exercisable at December 3 2010	12,768	$ 28.00	5.40	$ 98,376
Total exercisable or expected to vest at December 3 2010	20,184	$ 30.26	6.60	$ 114,473

The aggregate intrinsic value in the table above represents the total pre-tax amount, net of exercise price, which would have been received by option holders if all option holders had exercised all options with an exercise price lower than the market price on December 31, 2010, which was $35.20 based on the average of the high and low price of the Company's common stock on that date.

The total intrinsic value (the amount by which the fair market value exceeded the exercise price) of stock options exercised during 2010, 2009 and 2008 was $10.5 million, $36.4 million and $23.7 million, respectively. The total cash received from employees as a result of employee stock option exercises during 2010, 2009 and 2008 was $22.2 million, $38.2 million and $24.1 million, respectively.

The following table summarizes information about stock options outstanding and exercisable at December 31, 2010:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding (in thousands)	Weighted-average Remaining Contractual Life (in years)	Weighted-average Exercise Price (per share)	Number Exercisable (in thousands)	Weighted-average Exercise Price (per share)
$8.68–$20.0(	4,096	4.08	$ 15.77	3,725	$ 15.46
$20.01–$30.0(	2,701	5.00	$ 27.22	2,404	$ 27.15
$30.01–$40.0(	14,150	7.89	$ 35.08	6,380	$ 35.01
$40.01–$50.0(	329	3.39	$ 42.33	242	$ 42.62
$50.01–$67.3	17	0.11	$ 60.29	17	$ 60.29

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

C. Preferred Stock, Common Stock and Equity Plans (Continued)

The following table summarizes the restricted stock activity of the Company during the year ended December 31, 2010:

	Restricted Stock (in thousands)	Weighted-average Grant-date Fair Value (per share)
Nonvested at December 31, 2009	1,727	$ 31.23
Granted	846	37.23
Vested	(544)	32.70
Cancelled	(98)	33.14
Nonvested at December 31, 2010	1,931	$ 33.35

The total fair value of the restricted stock vesting during 2010, 2009 and 2008 (measured on the date of vesting) was $20.1 million, $26.5 million and $11.0 million, respectively.

In 2010, the Company began granting restricted stock units to employees of its Canadian operating subsidiary. During 2010, 19,875 restricted stock units with a weighted-average grant-date fair value per unit of $37.63 were granted, of which 1,200 restricted stock units with a grant-date fair value per unit of $39.05 were cancelled. There were no vestings of restricted stock units during 2010.

Employee Stock Purchase Plan

The Company has an employee stock purchase plan (the "ESPP"). The ESPP permits eligible employees to enroll in a twelve-month offering period comprising two six-month purchase periods. Participants may 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. Purchase dates under the ESPP occur on or about May 14 and November 14 of each year. In May 2008, the Company's shareholders approved an increase in the number of shares of common stock authorized for issuance pursuant to the ESPP of 2,000,000. As of December 31, 2010, there were 1,039,000 shares of common stock authorized for issuance pursuant to the ESPP.

During the year ended December 31, 2010, the following shares were issued to employees under the ESPP:

	Year Ended December 31, 2010 (in thousands, except per share amount)
Number of shares	394
Average price paid per share	$ 28.48

Rights

Each Vertex shareholder also holds one share purchase right (a "Right") for each share of common stock owned. Each Right entitles the holder to purchase from the Company one half of one-hundredth of a share of Series A 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, subject to adjustment (the "Purchase Price"). The Rights are not exercisable until

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

C. Preferred Stock, Common Stock and Equity Plans (Continued)

after the acquisition by a person or group of 15% or more of the outstanding common stock (an "Acquiring Person"), or after the announcement of an intention to make or the commencement of a tender offer or exchange offer, the consummation of which would result in the beneficial ownership by a person or group of 15% or more of the outstanding common stock (the earlier of such dates being called the "Distribution Date"). Until the Distribution Date (or earlier redemption or expiration of the Rights), the Rights will be traded with, and only with, the common stock. Until a Right is exercised, the Right will not entitle the holder thereof to any rights as a shareholder.

If any person or group becomes an Acquiring Person, each holder of a Right, other than Rights beneficially owned by the Acquiring Person, will thereafter have the right to receive upon exercise and payment of the Purchase Price that number of shares of common stock having a market value of two times the Purchase Price and, if 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 and payment of the Purchase Price that number of shares of common stock of the acquiring company that at the time of the transaction will have a market value of two times the Purchase Price.

At any time after any person becomes an Acquiring Person and prior to the acquisition by such person or group of 50% or more of the outstanding common stock, the Board of Directors of the Company may cause the Rights (other than Rights owned by such person or group) to be exchanged, in whole or in part, for common stock or Junior Preferred Shares, at an exchange rate of one share of common stock per Right or one 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 at a price of $0.01 per Right.

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

D. Stock-based Compensation Expense

The Company recognizes share-based payments to employees as compensation expense using the fair value method. The fair value of stock options and shares purchased pursuant to the ESPP is calculated using the Black-Scholes option pricing model. The fair value of restricted stock and restricted stock units typically is based on the intrinsic value on the date of grant. Stock-based compensation, measured at the grant date based on the fair value of the award, is typically recognized as expense ratably over the service period. The expense recognized over the service period includes an estimate of awards that will be forfeited.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

D. Stock-based Compensation Expense (Continued)

The effect of stock-based compensation expense during the three years ended December 31, 2010 was as follows:

	2010	2009	2008
		(in thousands)	
Stock-based compensation expense by line item:			
Research and development expenses	$ 65,198	$ 64,128	$ 46,144
Sales, general and administrative expenses	25,926	22,594	11,843
Total stock-based compensation expense included in net loss	$ 91,124	$ 86,722	$ 57,987

The stock-based compensation expense by type of award during the three years ended December 31, 2010 was as follows:

	2010	2009	2008
		(in thousands)	
Stock-based compensation expense by type of award:			
Stock options	$ 64,005	$ 63,397	$ 39,449
Restricted stock and restricted stock units	22,960	18,983	15,195
ESPP share issuances	4,159	4,342	3,343
Total stock-based compensation expense included in net loss	$ 91,124	$ 86,722	$ 57,987

The stock-based compensation expense related to stock options for 2009 included $12.7 million related to stock options that were accelerated and modified in connection with transition and severance arrangements with certain of the Company's former executive officers. The stock-based compensation expense related to restricted stock for 2009 included $2.2 million related to accelerated vesting of restricted stock awards in connection with transition and severance arrangements with certain of the Company's former executive officers. The stock-based compensation expense for restricted stock for 2008 included $0.6 million related to accelerated vesting of restricted stock awards in connection with an executive officer's separation arrangement.

The following table sets forth the unrecognized stock-based compensation expense, net of estimated forfeitures, as of December 31, 2010 by type of award and the weighted-average period over which that expense is expected to be recognized:

	As of December 31, 2010	
	Unrecognized Expense, Net of Estimated Forfeitures	Weighted-average Recognition Period
	(in thousands)	(in years)
Type of award:		
Stock options	$ 118,350	2.67
Restricted stock and restricted stock units	34,958	2.33
ESPP share issuances	3,501	0.64

Stock Options

The Company issues stock options with service conditions, which are generally the vesting periods of the awards. In 2009, the Company also issued, to certain members of senior management, stock

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

D. Stock-based Compensation Expense (Continued)

options that vest upon the earlier of the satisfaction of (1) performance conditions or (2) a service condition. If the Company estimates that it is probable that a performance condition will be met, the Company recognizes stock-based compensation expense related to the shares that would vest upon the performance condition over an implicit service period that is shorter than the vesting period. This implicit service period is the period that will be required to meet the performance condition based on the Company's estimates. In 2010, the Company determined based on the results from the registration program for telaprevir and the completion of the convertible debt offering in September 2010 that it was probable that some of the performance conditions contained in the stock options granted to certain members of senior management would be achieved and began recognizing a portion of the stock-based compensation expense related to these stock options over an implicit service that is shorter than the service period over which the Company had been recognizing the expense.

The Company uses the Black-Scholes option pricing model to estimate the fair value of stock options at the grant date. The Black-Scholes option pricing model uses the option exercise price as well as estimates and assumptions related to the expected price volatility of the Company's stock, the rate of return on risk-free investments, the expected period during which the options will be outstanding, and the expected dividend yield for the Company's stock to estimate the fair value of a stock option on the grant date. The options granted during 2010, 2009 and 2008 had a weighted-average grant-date fair value per share of $18.52, $19.11 and $14.33, respectively.

The fair value of each option granted during 2010, 2009 and 2008 was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2010	2009	2008
Expected stock price volatility	52.17%	57.77%	52.78%
Risk-free interest rate	2.44%	2.85%	3.42%
Expected term of options	5.71 years	6.31 years	5.78 years
Expected annual dividends	—	—	—

The weighted-average valuation assumptions were determined as follows:

- *Expected stock price volatility:* Options to purchase the Company's stock with remaining terms of greater than one year are regularly traded in the market. Expected stock price volatility is calculated using the trailing one month average of daily implied volatilities prior to grant date.

- *Risk-free interest rate:* The Company bases the risk-free interest rate on the interest rate payable on U.S. Treasury securities in effect at the time of grant for a period that is commensurate with the assumed expected option term.

- *Expected term of options:* The expected term of options represents the period of time options are expected to be outstanding. The Company uses historical data to estimate employee exercise and post-vest termination behavior. The Company believes that all groups of employees exhibit similar exercise and post-vest termination behavior and therefore does not stratify employees into multiple groups in determining the expected term of options.

- *Expected annual dividends:* The estimate for annual dividends is $0.00 because the Company has not historically paid, and does not intend for the foreseeable future to pay, a dividend.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

D. Stock-based Compensation Expense (Continued)

Restricted Stock and Restricted Stock Units

The Company issues restricted stock and restricted stock units with service conditions, which are generally the vesting periods of the awards.

In 2009 and 2010 the Company issued, to certain members of senior management, restricted stock and restricted stock units that vest upon the earlier of the satisfaction of (i) performance conditions or (ii) a service condition. If the Company estimates that it is probable that a performance condition will be met, the Company recognizes the stock-based compensation expense related to the shares that would vest upon the achievement of that performance condition over the estimated period that will be required to meet the performance condition. In 2010, the Company determined based on the results from the registration program for telaprevir that it was probable that some of the performance conditions contained in the restricted stock and restricted stock units granted to certain members of senior management in 2009 and 2010 would be achieved and began recognizing a portion of the stock-based compensation expense related to these awards over a period that is shorter than the service period over which the Company had been recognizing the expense.

In 2006, 2007, 2008 the Company issued, to certain members of senior management, restricted stock that vests upon the earlier of the satisfaction of (i) market conditions or (ii) a service condition. For these grants, a portion of the fair value of the common stock on the date of grant is recognized ratably over a derived service period that is equal to the estimated time to satisfy the market condition. The portion of the fair value of the common stock that is recognized over the derived service period is determined on the basis of the estimated probability that a grant will vest as a result of satisfying the market condition. For the 2006, 2007 and 2008 grants, the derived service period relating to each market condition was shorter than the four-year service-based vesting period. The difference between the fair value of the common stock on the date of grant and the value recognized over the derived service period is recognized ratably over the four-year service-based vesting period. The stock-based compensation expense recognized over each of the derived service periods and the four-year service periods includes an estimate of awards that will be forfeited prior to the end of the derived service periods or the four-year service periods, respectively.

Employee Stock Purchase Plan

The weighted-average fair value of each purchase right granted during 2010, 2009 and 2008 was $10.19, $11.31 and $10.14, respectively. The following table reflects the weighted-average assumptions used in the Black-Scholes option pricing model for 2010, 2009 and 2008:

	2010	2009	2008
Expected stock price volatility	43.92%	54.22%	66.63%
Risk-free interest rate	0.24%	0.39%	1.16%
Expected term	0.71 years	0.76 years	0.72 years
Expected annual dividends	—	—	—

The expected stock price volatility for ESPP offerings is based on implied volatility. The Company bases the risk-free interest rate on the interest rate payable on U.S. Treasury securities in effect at the time of grant for a period that is commensurate with the assumed expected term. The expected term represents purchases and purchase periods that take place within the offering period. The expected

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

D. Stock-based Compensation Expense (Continued)

annual dividends estimate is $0.00 because the Company has not historically paid, and does not for the foreseeable future intend to pay, a dividend.

E. Fair Value of Financial Instruments

The fair value of the Company's financial assets and liabilities reflects the Company's estimate of amounts that it would have received in connection with the sale of the assets or paid in connection with the transfer of the liabilities in an orderly transaction between market participants at the measurement date. In connection with measuring the fair value of its assets and liabilities, the Company seeks to maximize the use of observable inputs (market data obtained from sources independent from the Company) and to minimize the use of unobservable inputs (the Company's assumptions about how market participants would price assets and liabilities). The following fair value hierarchy is used to classify assets and liabilities based on the observable inputs and unobservable inputs used in order to value the assets and liabilities:

Level 1: Quoted prices in active markets for identical assets or liabilities. An active market for an asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2: Observable inputs other than Level 1 inputs. Examples of Level 2 inputs include quoted prices in active markets for similar assets or liabilities and quoted prices for identical assets or liabilities in markets that are not active.

Level 3: Unobservable inputs based on the Company's assessment of the assumptions that market participants would use in pricing the asset or liability.

The Company's investment strategy is focused on capital preservation. The Company invests in instruments that meet credit quality standards as outlined in the Company's investment policy guidelines. These guidelines also limit the amount of credit exposure to any one issue or type of instrument. As of December 31, 2010, the Company's investments are in money market funds and short-term government guaranteed or supported securities.

As of December 31, 2010, all of the Company's financial assets that were subject to fair value measurements were valued using observable inputs. The Company's financial assets that were valued based on Level 1 inputs consist of a money market fund, U.S. Treasuries and government-sponsored enterprise securities, which are government-supported. The money market fund in which the Company invests also holds government-sponsored enterprise securities. During 2010, 2009 and 2008, the Company did not record an other-than-temporary impairment charge related to its financial assets. The Company's financial liabilities that were subject to fair value measurement relate to the financial transactions that the Company entered into in September 2009 and are valued based on Level 3 inputs. Please refer to Note Q, "September 2009 Financial Transactions."

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

E. Fair Value of Financial Instruments (Continued)

The following table sets forth the Company's financial assets and liabilities subject to fair value measurements as of December 31, 2010:

	Fair Value Measurements as of December 31, 2010			
		Fair Value Hierarchy		
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Financial assets carried at fair value:				
Cash equivalents:				
Money market funds	$ 148,326	$ 148,326	$ —	$ —
U.S. Treasury securities	4,770	4,770	—	—
Government-sponsored enterprise securities	44,582	44,582	—	—
Marketable securities:				
U.S. Treasury securities	103,220	103,220	—	—
Government-sponsored enterprise securities	684,994	684,994	—	—
Restricted cash	34,090	34,090	—	—
Total	$ 1,019,982	$ 1,019,982	$ —	$ —
Financial liabilities carried at fair value:				
Embedded derivative related to 2012 Notes	$ 12,089	$ —	$ —	$ 12,089
Liability related to sale of potential future milestone payments	77,799	—	—	77,799
Total	$ 89,888	$ —	$ —	$ 89,888

The following table is a reconciliation of financial liabilities measured at fair value using significant unobservable inputs (Level 3):

	Year Ended December 31, 2010
	(in thousands)
Balance, December 31, 2009	$ 48,659
Change in fair value of derivative instruments	41,229
Balance, December 31, 2010	$ 89,888

As of December 31, 2010, the Company had $400.0 million in aggregate principal amount of 3.35% convertible senior subordinated notes due 2015 (the "2015 Notes") on its consolidated balance sheet. At December 31, 2010, these 2015 Notes had a fair value of approximately $405 million as obtained from a quoted market source.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

F. Restructuring Expense

In June 2003, Vertex adopted a plan to restructure its operations to coincide with its increasing internal emphasis on advancing drug candidates through clinical development to commercialization. The restructuring was designed to re-balance the Company's relative investments in research and development to better support the Company's long-term strategy. At that time, the restructuring plan included a workforce reduction, write-offs of certain assets and a decision not to occupy approximately 290,000 square feet of specialized laboratory and office space in Cambridge, Massachusetts under lease to Vertex (the "Kendall Square Lease"). The Kendall Square Lease commenced in January 2003 and has a 15-year term. In the second quarter of 2005, the Company revised its assessment of its real estate requirements and decided to use approximately 120,000 square feet of the facility subject to the Kendall Square Lease (the "Kendall Square Facility") for its operations, beginning in 2006. The remaining rentable square footage of the Kendall Square Facility currently is subleased to third parties.

The Company's initial estimate of its liability for net ongoing costs associated with the Kendall Square Lease obligation was recorded in the second quarter of 2003 at fair value. The restructuring expense incurred from the second quarter of 2003 through the end of the first quarter of 2005 (i.e., immediately prior to the Company's decision to use a portion of the Kendall Square Facility for its operations) relates to the estimated incremental net ongoing lease obligations associated with the entire Kendall Square Facility, together with imputed interest costs relating to the restructuring liability. The restructuring expense incurred in the period beginning in the second quarter of 2005 relates only to the portion of the building that the Company currently does not intend to occupy for its operations. The remaining lease obligations, which are associated with the portion of the Kendall Square Facility that the Company occupies and uses for its operations, are recorded as rental expense in the period incurred. The Company reviews its assumptions and estimates quarterly and updates its estimates of this liability as changes in circumstances require. The expense and liability recorded is calculated using probability-weighted discounted cash-flows of the Company's estimated ongoing lease obligations, including contractual rental and build-out commitments, net of estimated sublease rentals, offset by related sublease costs.

In estimating the expense and liability under its Kendall Square Lease obligation, the Company estimated (i) the costs to be incurred to satisfy rental and build-out commitments under the lease (including operating costs), (ii) the lead-time necessary to sublease the space, (iii) the projected sublease rental rates, and (iv) the anticipated durations of subleases. The Company uses a credit-adjusted risk-free rate of approximately 10% to discount the estimated cash flows. The Company reviews its estimates and assumptions on at least a quarterly basis, and intends to continue such reviews until the termination of the Kendall Square Lease, and will make whatever modifications the Company believes necessary, based on the Company's best judgment, to reflect any changed circumstances. The Company's estimates have changed in the past, and may change in the future, resulting in additional adjustments to the estimate of the liability, and the effect of any such adjustments could be material. Changes to the Company's estimate of the liability are recorded as additional restructuring expense/(credit). In addition, because the Company's estimate of the liability includes the application of a discount rate to reflect the time-value of money, the Company will record imputed interest costs related to the liability each quarter. These costs are included in restructuring expense on the Company's consolidated statements of operations.

The restructuring liability of $29.6 million at December 31, 2010 relates solely to the portion of the Kendall Square Facility that the Company does not intend to use for its operations and includes other related lease obligations, recorded at net present value. The Company classified $5.5 million of the

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

F. Restructuring Expense (Continued)

total restructuring liability at December 31, 2010 as short-term, and $24.1 million as long-term. The short-term portion of the restructuring liability represents the net amount the Company expects to pay in 2011.

The activity related to restructuring and other liability for 2003 was as follows:

	Charge in 2003	Cash payments in 2003	Non-cash write-off in 2003	Liability as of December 31, 2003
		(in thousands)		
Lease restructuring and other operating lease expense	$ 84,726	$ (15,200)	$ —	$ 69,526
Employee severance, benefits and related costs	2,616	(2,616)	—	—
Leasehold improvements and asset impairments	4,482	—	(4,482)	—
Total	$ 91,824	$ (17,816)	$ (4,482)	$ 69,526

In 2003, the lease restructuring and other operating lease expense included $78.7 million of lease restructuring expense and $6.0 million of lease operating expense incurred prior to the decision not to occupy the Kendall Square Facility. The restructuring accrual as of December 31, 2003 related only to the lease restructuring expense.

The activity related to restructuring for 2004 through 2010 was as follows:

	Restructuring Liability			
	2010	2009	2008	2004-2010
		(in thousands)		
Liability, beginning of the period	$ 34,017	$ 34,064	$ 35,292	$ 69,526
Cash payments	(14,759)	(14,924)	(14,017)	(133,940)
Cash received from subleases	8,836	8,637	8,465	45,466
Credit for portion of facility Vertex decided to occupy in 2005	—	—	—	(10,018)
Additional charge	1,501	6,240	4,324	58,561
Liability, end of the period	$ 29,595	$ 34,017	$ 34,064	$ 29,595

In each period, the Company records lease restructuring expense attributable to imputed interest relating to the restructuring liability. In certain periods, the restructuring expense also reflects the revision of certain key estimates and assumptions about operating expenses and building operating expenses. In 2005, the Company recorded net restructuring expense as a result of a credit to the restructuring liability made when the Company decided to occupy and use a portion of the Kendall Square Facility that was offset by (i) the estimated incremental net ongoing lease obligations associated with the portion of the Kendall Square Facility that the Company did not intend to occupy and (ii) imputed interest costs relating to the restructuring liability.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

G. Marketable Securities

A summary of cash, cash equivalents and marketable securities is shown below:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(in thousands)		
December 31, 2010				
Cash and cash equivalents				
Cash and money market funds	$ 193,845	$ —	$ —	$ 193,845
U.S. Treasury securities	4,770	—	—	4,770
Government-sponsored enterprise securities	44,587	1	(6)	44,582
Total cash and cash equivalents	$ 243,202	$ 1	$ (6)	$ 243,197
Marketable securities				
U.S. Treasury securities (due within 1 year)	$ 103,230	$ 1	$ (11)	$ 103,220
Government-sponsored enterprise securities (due within 1 year)	684,969	87	(62)	684,994
Total marketable securities	$ 788,199	$ 88	$ (73)	$ 788,214
Total cash, cash equivalents and marketable securities	$ 1,031,401	$ 89	$ (79)	$ 1,031,411
December 31, 2009				
Cash and cash equivalents				
Cash and money market funds	$ 251,005	$ —	$ —	$ 251,005
U.S. Treasury securities	20,198	—	(5)	20,193
Government-sponsored enterprise securities	175,455	8	(3)	175,460
Total cash and cash equivalents	$ 446,658	$ 8	$ (8)	$ 446,658
Marketable securities				
U.S. Treasury securities (due within 1 year)	$ 223,422	$ —	$ (99)	$ 223,323
Government-sponsored enterprise securities (due within 1 year)	614,869	81	(18)	614,932
Total marketable securities	$ 838,291	$ 81	$ (117)	$ 838,255
Total cash, cash equivalents and marketable securities	$ 1,284,949	$ 89	$ (125)	$ 1,284,913

The Company has marketable securities classified as current assets of $788.2 million and $838.3 million, respectively, on its consolidated balance sheets as of December 31, 2010 and 2009.

The Company reviews investments in marketable securities for other-than-temporary impairment whenever the fair value of an investment is less than amortized cost and evidence indicates that an investment's carrying amount is not recoverable within a reasonable period of time. To determine whether an impairment is other-than-temporary, the Company considers the intent to sell, or whether it is more likely than not that the Company will be required to sell, the investment before recovery of the investment's amortized cost basis. Evidence considered in this assessment includes reasons for the impairment, compliance with the Company's investment policy, the severity and the duration of the impairment and changes in value subsequent to year end.

The Company owned 32 available-for-sale marketable securities at December 31, 2010. Of these 32 securities, there were 15 securities with unrealized losses, none of which was individually significant.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

G. Marketable Securities (Continued)

The following table summarizes the fair value and gross unrealized losses related to marketable securities, aggregated by investment category and length of time that individual securities had been in a continuous unrealized loss position as of December 31, 2010:

	Less than 12 months		12 months or more		Total	
	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss
	(in thousands)					
U.S. Treasury securities	$ 95,942	$ (11)	$ —	$ —	$ 95,942	$ (11)
Government-sponsored enterprise securities	253,871	(62)	—	—	253,871	(62)
Total	$ 349,813	$ (73)	$ —	$ —	$ 349,813	$ (73)

As of December 31, 2010, unrealized losses in the portfolio related to various debt securities including U.S. Treasuries and government-sponsored enterprise securities. For these securities, the unrealized losses were primarily due to increases in interest rates. The contractual terms of these investments do not permit the issuer to settle the securities at a price less than the amortized cost bases of the investments. Because the Company does not intend to sell the investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost bases, which may be maturity, the Company does not consider those investments to be other-than-temporarily impaired at December 31, 2010.

The following table summarizes the fair value and gross unrealized losses related to marketable securities, aggregated by investment category and length of time that individual securities had been in a continuous unrealized loss position as of December 31, 2009:

	Less than 12 months		12 months or more		Total	
	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss
	(in thousands)					
U.S. Treasury securities	$ 221,412	$ (99)	$ —	$ —	$ 221,412	$ (99)
Government-sponsored enterprise securities	118,950	(18)	—	—	118,950	(18)
Total	$ 340,362	$ (117)	$ —	$ —	$ 340,362	$ (117)

As of December 31, 2009, unrealized losses in the portfolio related to various debt securities including U.S. Treasuries and government-sponsored enterprise securities. For these securities, the unrealized losses were primarily due to increases in interest rates. The contractual terms of these investments do not permit the issuer to settle the securities at a price less than the amortized cost bases of the investments. Because the Company does not intend to sell the investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost bases, which may be maturity, the Company does not consider those investments to be other-than-temporarily impaired at December 31, 2009.

The Company had proceeds of $1.3 billion, $788.3 million and $427.6 million, respectively, from sales and maturities of available-for-sale securities in 2010, 2009 and 2008, respectively.

Realized gains and losses are determined using the specific identification method and are included in interest income on the consolidated statements of operations. There were no gross realized gains and losses for 2010 and 2009. Gross realized gains and losses for 2008 were $943,000 and $310,000, respectively.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

H. Restricted Cash

At December 31, 2010 and 2009, the Company held $34.1 million and $30.3 million, respectively, in restricted cash. At December 31, 2010 and 2009, the balance was held in deposit with certain banks predominantly to collateralize conditional stand-by letters of credit in the names of the Company's landlords pursuant to certain operating lease agreements.

I. Property and Equipment

Property and equipment consisted of the following at December 31:

	2010	2009
	(in thousands)	
Furniture and equipment	$ 137,904	$ 128,920
Leasehold improvements	102,720	88,020
Software	50,211	41,910
Computers	28,817	25,155
Total property and equipment, gross	319,652	284,005
Less accumulated depreciation and amortization	247,319	221,726
Total property and equipment, net	$ 72,333	$ 62,279

Total property and equipment, net, on the Company's consolidated balance sheets as of December 31, 2010 and 2009 included $15.3 million and $3.8 million, respectively, related to the Company's United Kingdom subsidiary.

Depreciation and amortization expense for the years ended December 31, 2010, 2009 and 2008 was $27.9 million $28.3 million and $30.4 million, respectively.

In 2010, 2009 and 2008, the Company wrote-off certain assets that were fully depreciated and no longer utilized. There was no effect on the Company's net property and equipment. Additionally, the Company wrote-off or sold certain assets that were not fully depreciated. The loss on disposal of those assets was $39,000 for 2010, $2.2 million for 2009, and $11,000 for 2008

J. Accrued Expenses and Other Current Liabilities and Other Obligations

Accrued expenses and other current liabilities consisted of the following at December 31:

	2010	2009
	(in thousands)	
Research and development contract costs	$ 58,375	$ 54,912
Payroll and benefits	52,415	45,882
Professional fees	8,629	7,801
Other	14,995	10,158
Total	$ 134,414	$ 118,753

Other obligations of $6.2 million and $15.2 million as of December 31, 2010 and 2009, respectively, consisted of the remaining amount of a deposit received from a collaborator for potential future obligations of the Company.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

K. Commitments

The Company leases its facilities and certain equipment under operating leases. The Company's leases have terms through June 2020. The leases of the Company's primary facilities in Cambridge were extended in 2009 through December 2015. The term of the Kendall Square Lease began January 1, 2003. Rent payments will be subject to increase in May 2013, based on changes in an inflation index. These increases will be treated as contingent rentals. The Kendall Square Lease will expire in 2018, and the Company has the option to extend the term for two consecutive terms of ten years each, ultimately expiring in 2038. The Company occupies and uses for its operations approximately 120,000 square feet of the Kendall Square Facility. The Company has sublease arrangements in place for the remaining rentable square footage of the Kendall Square Facility, with terms that expire in August 2012 and April 2015. See Note F, "Restructuring Expense," for further information.

As of December 31, 2010, future minimum commitments under facility operating leases with terms of more than one year and expected sublease income under the Company's subleases for the Kendall Square Facility are as follows:

Year	Kendall Square Lease	Sublease Income for Kendall Square Facility	Other Operating Leases	Total Operating Leases (Net of Sublease Income)
		(in thousands)		
2011	$ 18,260	$ (7,278)	$ 30,009	$ 40,991
2012	18,260	(6,780)	26,716	38,196
2013	18,260	(5,021)	22,555	35,794
2014	18,260	(5,021)	18,912	32,151
2015	18,260	(1,674)	19,949	36,535
Thereafter	42,606	—	12,807	55,413
Total minimum lease payments	$ 133,906	$ (25,774)	$ 130,948	$ 239,080

Rental expense for 2010 was $46.6 million, which included $11.6 million related to the Kendall Square Facility. Rental expense for 2009 was $39.1 million, which included $11.5 million related to the Kendall Square Facility. Rental expense for 2008 was $31.1 million, which included $10.7 million related to the Kendall Square Facility.

The Company has future contractual commitments in connection with its research, development and commercial supply investment. For 2011, the amount committed under these contracts is $8.0 million.

In September 2009, the Company entered into two financial transactions pursuant to which it issued secured notes and sold its rights to future potential milestones. See Note Q, "September 2009 Financial Transactions," for further information. In September 2010, the Company issued $400.0 million in aggregate principal of 2015 Notes. See Note L, "Convertible Senior Subordinated Notes and Collaborator Loan," for further information.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

L. Convertible Senior Subordinated Notes and Collaborator Loan

2015 Notes

On September 28, 2010, the Company completed an offering of $400.0 million in aggregate principal amount of 3.35% convertible senior subordinated notes due 2015. This offering resulted in net proceeds of $391.6 million to the Company. The underwriting discount of $8.0 million and other expenses of $0.4 million related to this offering were recorded as debt issuance costs and are included in other assets on the Company's consolidated balance sheet. The 2015 Notes were issued pursuant to and are governed by the terms of an indenture (as supplemented, the "Indenture").

The 2015 Notes are convertible at any time, at the option of the holder, into common stock at a price equal to approximately $48.83 per share, or 20.4794 shares of common stock per $1,000 principal amount of the 2015 Notes, subject to adjustment. The 2015 Notes bear interest at the rate of 3.35% per annum, and the Company is required to make semi-annual interest payments on the outstanding principal balance of the 2015 Notes on April 1 and October 1 of each year, beginning on April 1, 2011. The 2015 Notes mature on October 1, 2015.

Prior to October 1, 2013, if the closing price of the Company's common stock has exceeded 130% of the then applicable conversion price for at least 20 trading days within a period of 30 consecutive trading days, the Company may redeem the 2015 Notes at its option, in whole or in part, at a redemption price equal to 100% of the principal amount of the 2015 Notes to be redeemed. If the Company elects to redeem the 2015 Notes prior to October 1, 2013, or the holder elects to convert the 2015 Notes after receiving notice of such redemption, the Company will be obligated to make an additional payment, payable in cash or, subject to certain conditions, shares of the Company's common stock, so that the Company's total interest payments on the 2015 Notes being redeemed and such additional payment shall equal three years of interest. On or after October 1, 2013, the Company may redeem the 2015 Notes at its option, in whole or in part, at the redemption prices stated in the Indenture plus accrued and unpaid interest, if any, to, but excluding, the redemption date.

Holders may require the Company to repurchase some or all of their 2015 Notes upon the occurrence of certain fundamental changes of Vertex, as set forth in the Indenture, at 100% of the principal amount of the 2015 Notes to be repurchased, plus any accrued and unpaid interest, if any, to, but excluding, the repurchase date.

If a fundamental change occurs that is also a specific type of change of control under the Indenture, the Company will pay a make-whole premium upon the conversion of the 2015 Notes in connection with any such transaction by increasing the applicable conversion rate on such 2015 Notes. The make-whole premium will be in addition to, and not in substitution for, any cash, securities or other assets otherwise due to holders of the 2015 Notes upon conversion. The make-whole premium will be determined by reference to the Indenture and is based on the date on which the fundamental change becomes effective and the price paid, or deemed to be paid, per share of the Company's common stock in the transaction constituting the fundamental change, subject to adjustment.

Based on the Company's evaluation of the 2015 Notes, the Company determined that the 2015 Notes contain a single embedded derivative. This embedded derivative relates to potential penalty interest payments that could be imposed on the Company for a failure to comply with its securities reporting obligations pursuant to the 2015 Notes. This embedded derivative required bifurcation because it was not clearly and closely related to the host instrument. The Company has determined that the value of this embedded derivative was nominal as of September 28, 2010 and December 31, 2010.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

L. Convertible Senior Subordinated Notes and Collaborator Loan (Continued)

2013 Notes

In February 2008, the Company completed an offering of $287.5 million in aggregate principal amount of 4.75% convertible senior subordinated notes due 2013 (the "2013 Notes"). This offering resulted in net proceeds of $278.6 million to the Company. The underwriting discount of $8.6 million and other expenses of $0.3 million related to the 2013 Notes offering were recorded as debt issuance costs and included in other assets on the Company's consolidated balance sheet.

The 2013 Notes were convertible, at the option of the holder, into common stock at a price equal to $23.14 per share or 43.22 shares of common stock per $1,000 in principal amount of the 2013 Notes. The 2013 Notes bore interest at the rate of 4.75% per annum, and the Company was required to make semi-annual interest payments on the outstanding principal balance of the 2013 Notes on February 15 and August 15 of each year. The Company had the right to redeem the 2013 Notes, in whole or in part, on or after February 15, 2010, at the redemption prices stated in the indenture, plus accrued and unpaid interest to, but excluding, the redemption date. The 2013 Notes would have matured on February 15, 2013.

In the second quarter of 2009, the Company exchanged $143.5 million in aggregate principal amount of the 2013 Notes, plus accrued interest, for 6,601,000 shares of newly-issued common stock. In order to induce the holders of the 2013 Notes to enter into these exchanges, the Company agreed to issue 46 shares of common stock for each $1,000 in principal amount of the 2013 Notes, which was 2.78 more shares of common stock per $1,000 in principal amount than were provided for upon conversion pursuant to the terms of the 2013 Notes. As a result of these exchanges, the Company incurred a non-cash charge of $12.3 million in the second quarter of 2009 related to the incremental shares that were issued to the holders of the 2013 Notes. In addition, accrued interest of $2.1 million and unamortized debt issuance costs of the 2013 Notes of $3.5 million were recorded as an offset to additional paid-in capital.

In the fourth quarter of 2009, the Company exchanged $111.9 million in aggregate principal amount of the 2013 Notes, plus accrued interest, for 4,980,838 shares of newly-issued common stock. In order to induce the holders of the 2013 Notes to enter into these exchanges, the Company agreed to issue 44.5 shares of common stock for each $1,000 in principal amount of the 2013 Notes, which was 1.28 more shares of common stock per $1,000 in principal amount than were provided for upon conversion pursuant to the terms of the 2013 Notes. As a result of these exchanges, the Company incurred a non-cash charge of $5.8 million in the fourth quarter of 2009 related to the incremental shares that were issued to the holders of the 2013 Notes. In addition, accrued interest of $1.3 million and unamortized debt issuance costs of the 2013 Notes of $2.4 million were recorded as an offset to additional paid-in capital.

In the first quarter of 2010, the Company announced that it would redeem the remaining $32.1 million in aggregate principal amount of the 2013 Notes on March 19, 2010. Instead, the holders of the remaining 2013 Notes elected to convert their 2013 Notes, pursuant to the original terms of the 2013 Notes, into 1,386,006 shares of newly-issued common stock in full satisfaction of the 2013 Notes. Accrued interest of $0.1 million and unamortized debt issuance costs of the 2013 Notes of $0.6 million were recorded as an offset to additional paid-in capital.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

L. Convertible Senior Subordinated Notes and Collaborator Loan (Continued)

Collaborator Loan

On January 1, 2008, the Company had outstanding $20.0 million in loans under a loan facility established in connection with a collaboration with Novartis that was completed in 2006. In May 2008, the Company repaid the $20.0 million in loans outstanding under the loan facility.

M. Common Stock Offerings

February 2008 Offering

In February 2008, the Company completed an offering 6,900,000 shares of common stock, which were sold at a price of $17.14 per share. This offering resulted in net proceeds of $112.7 million to the Company. The underwriting discount of $5.3 million and other expenses of $0.2 million were recorded as an offset to additional paid-in-capital.

September 2008 Offering

In September 2008, the Company completed an offering of 8,625,000 shares of common stock, which were sold at a price of $25.50 per share. This offering resulted in $217.4 million of net proceeds to the Company. The underwriting discount of $2.2 million and other expenses of $0.3 million were recorded as an offset to additional paid-in-capital.

February 2009 Offering

In February 2009, the Company completed an offering of 10,000,000 shares of common stock, which were sold at a price of $32.00 per share. This offering resulted in $313.3 million of net proceeds to the Company. The underwriting discount of $6.4 million and other expenses of $0.3 million were recorded as an offset to additional paid-in capital.

December 2009 Offering

In December 2009, the Company completed an offering of 13,000,000 shares of common stock, which were sold at a price of $38.50 per share. This offering resulted in $488.1 million of net proceeds to the Company. The underwriting discount of $12.1 million and other expenses of $0.3 million were recorded as an offset to additional paid-in capital.

N. Income Taxes

For the years ended December 31, 2010, 2009 and 2008, there is no provision for income taxes included in the consolidated statements of operations.

The Company's federal statutory income tax rate for 2010, 2009 and 2008 was 34%. The Company has incurred losses from operations but has not recorded an income tax benefit for 2010, 2009 and 2008, 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.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

N. Income Taxes (Continued)

The difference between the Company's "expected" tax provision (benefit), as computed by applying the U.S. federal corporate tax rate of 34% to loss before provision for income taxes, and actual tax is reconciled as follows:

	2010	2009	2008
		(in thousands)	
Loss before provision for income taxes	$ (754,626)	$ (642,178)	$ (459,851)
Expected tax benefit at 34%	(256,574)	(218,341)	(156,349)
State taxes, net of federal benefit	(46,108)	(38,965)	(28,833)
Unbenefited operating losses	299,891	248,388	185,016
Non-deductible expenses	2,158	8,244	127
Other	633	674	39
Income tax provision	$ —	$ —	$ —

For federal income tax purposes, as of December 31, 2010, the Company has net operating loss carryforwards of approximately $2.8 billion, and tax credits of $73.7 million, which may be used to offset future federal income and tax liability, respectively. For state income tax purposes, the Company has net operating loss carryforwards of approximately $1.9 billion, and tax credits of $44.4 million, which may be used to offset future state income and tax liability, respectively. These operating loss carryforwards began to expire in 2006, and the tax credit carryforwards began to expire in 2005. After consideration of all the evidence, both positive and negative, management has established a valuation allowance for the full amount of the 2010 deferred tax asset since it is more likely than not that the deferred tax asset will not be realized. In future periods, if management determines that it is more likely than not that the deferred tax asset will be realized (i) the valuation allowance would be decreased, (ii) a portion or all of the deferred tax asset would be reflected on the consolidated balance sheet and (iii) the Company would record non-cash benefits in its statements of operations related to the reflection of the deferred tax asset on the consolidated balance sheet.

Deferred tax assets and liabilities 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 the deferred taxes at December 31 were as follows:

	2010	2009
	(in thousands)	
Deferred tax assets:		
Net operating loss	$ 944,275	$ 759,687
Tax credit carryforwards	112,467	83,562
Property and equipment	22,483	22,370
Deferred revenues	138,809	99,207
Stock-based compensation	81,211	59,958
Inventory	38,810	38,714
Accrued expenses and other	30,078	17,939
Gross deferred tax assets	1,368,133	1,081,437
Valuation allowance	(1,368,133)	(1,081,437)
Total deferred tax assets	—	—
Deferred tax liabilities:		
Acquired intangibles	(160,278)	(160,278)
Net deferred tax liabilities	$ (160,278)	$ (160,278)

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Notes to Consolidated Financial Statements (Continued)

N. Income Taxes (Continued)

Generally, tax return deductions are allowable on stock-based compensation plans, but, may arise in different amounts and periods from when compensation costs are recognized in the financial statements. If the tax return deduction for an award exceeds the cumulative compensation expense recognized in the financial statements, any excess tax benefit shall be recognized as additional paid-in capital when the deduction reduces income tax payable. The net tax amount of the unrealized excess tax benefits as of December 31, 2010 was approximately $112 million. The gross amount of this excess tax deduction in the net operating loss carryforward was approximately $525 million.

The valuation allowance increased by $287 million from December 31, 2009 to December 31, 2010, primarily due to the increase in net operating losses and tax credits.

At December 31, 2010 and December 31, 2009, the Company had no material unrecognized tax benefits and no adjustments to liabilities or operations were required. The Company does not expect that its unrecognized tax benefits will materially increase within the next twelve months. The Company did not recognize any interest or penalties related to uncertain tax positions at December 31, 2010 and December 31, 2009.

The Company files United States federal income tax returns and income tax returns in various state, local, and foreign jurisdictions. The Company is no longer subject to any tax assessment from an income tax examination in the United States before 2007 and any other major taxing jurisdiction for years before 2005, except where the Company has net operating losses or tax credit carryforwards that originate before 2005. The Company completed an examination by the Internal Revenue Service with respect to 2006 in June 2009 with no material changes. The Company is currently under examination by Revenue Quebec for the year ended March 11, 2009 and the year ended December 31, 2007. No adjustments have been reported. The Company is not under examination by any other jurisdictions for any tax year.

O. Collaborative Arrangements

Janssen Pharmaceutica, N.V.

In June 2006, the Company entered into a collaboration agreement with Janssen for the development, manufacture and commercialization of telaprevir. Under the agreement, Janssen has agreed to be responsible for 50% of the drug development costs incurred under the development program for the parties' territories (North America for the Company, and the rest of the world, other than the Far East, for Janssen) and has exclusive rights to commercialize telaprevir in its territories including Europe, South America, the Middle East, Africa and Australia.

Janssen made a $165.0 million up-front license payment to the Company in July 2006. The up-front license payment is being amortized over the Company's estimated period of performance under the collaboration agreement. The Company's estimates regarding the period of performance under the Janssen collaboration agreement were adjusted in 2007, in the third quarter of 2009 and in the first quarter of 2010, as a result of changes in the global development plan for telaprevir, which contemplates the conduct of certain development activities in the post-approval period, if telaprevir is approved for marketing. These adjustments were made on a prospective basis beginning in the periods in which the changes were identified and resulted in a decrease in the amount of revenues the Company recognized from the Janssen agreement by $2.6 million per quarter for the first adjustment, by $1.1 million per quarter for the second adjustment and by $1.4 million per quarter for the third

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Notes to Consolidated Financial Statements (Continued)

O. Collaborative Arrangements (Continued)

adjustment. As of December 31, 2010, there was $68.4 million in deferred revenues related to this up-front license payment that will be recognized over the remaining estimated period of performance.

Under the agreement, Janssen agreed to make contingent milestone payments for successful development, approval and launch of telaprevir as a product. As of December 31, 2010, the Company had earned $100.0 million of these contingent milestone payments. The remaining $250.0 million in contingent milestones that the Company could achieve under the agreement consist of $100.0 million related to the regulatory filing with and approval of telaprevir by the European Medicines Agency, and $150.0 million related to the launch of telaprevir in the European Union. On September 30, 2009, the Company entered into two financial transactions related to these $250.0 million in contingent milestones. Please refer to Note Q, "September 2009 Financial Transactions."

Under the collaboration agreement for telaprevir, each party incurs internal and external reimbursable expenses related to the telaprevir development program and is reimbursed for 50% of these expenses. The Company recognizes the full amount of the reimbursable costs it incurs as research and development expenses on its consolidated statements of operations and recognizes the net amount that Janssen is obligated to pay the Company with respect to reimbursable expenses, after offsetting reimbursable expenses incurred by Janssen, as collaborative revenues.

Each of the parties will be responsible for drug supply in their respective territories. The Company has agreed to provide Janssen certain services through the Company's third-party manufacturing network until June 2011. Reimbursements from Janssen for manufacturing services are recorded as collaborative revenues.

The collaboration agreement with Janssen also provides the Company with royalties on any sales of telaprevir in the Janssen territories, with a tiered royalty averaging in the mid-20% range, as a percentage of net sales in the Janssen territories. In addition, Janssen will be responsible for certain third-party royalties on net sales in its territories. Janssen may terminate the agreement (A) prior to the receipt of marketing approval for telaprevir, without cause at any time upon six months' notice to the Company or (B) if marketing approval has been obtained, upon the later of (i) one year's advance notice and (ii) such period as may be required to assign and transfer to the Company specified filings and approvals.

During the three years ended December 31, 2010, the Company recognized the following collaborative revenues attributable to the Janssen collaboration:

	2010	2009	2008
		(in thousands)	
Amortized portion of up-front payment	$ 12,428	$ 20,196	$ 22,440
Development milestone payments	—	—	55,000
Net reimbursement for telaprevir development costs	9,245	27,711	42,627
Reimbursement for manufacturing services	9,077	6,733	55
Total collaborative revenues attributable to the Janssen collaboration	$ 30,750	$ 54,640	$ 120,122

Mitsubishi Tanabe Pharma Corporation

In June 2004, the Company entered into a collaboration agreement (the "MTPC Agreement") with Mitsubishi Tanabe, pursuant to which Mitsubishi Tanabe agreed to provide financial and other

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

O. Collaborative Arrangements (Continued)

support for the development and commercialization of telaprevir. Under the terms of the agreement, Mitsubishi Tanabe has the right to develop and commercialize telaprevir in Japan and certain other Far East countries. The MTPC Agreement provided for payments by Mitsubishi Tanabe to the Company through Phase 2 clinical development, including an up-front license fee, development-stage milestone payments and reimbursement of certain drug development costs for telaprevir.

In July 2009, the Company and Mitsubishi Tanabe amended the MTPC Agreement. Under the amended agreement, Mitsubishi Tanabe paid the Company $105.0 million in the third quarter of 2009, and the Company may receive a further contingent milestone payment ranging from between $15.0 million to $65.0 million. The amended agreement provides to Mitsubishi Tanabe a fully-paid license to manufacture and commercialize telaprevir to treat HCV infection in Japan and specified other countries in the Far East. Mitsubishi Tanabe is responsible for its own development and manufacturing costs in its territory. Mitsubishi Tanabe may terminate the agreement at any time without cause upon 60 days' prior written notice to the Company, in which case all rights to telaprevir will revert to the Company.

Prior to the amendment, the Company recognized revenues based on an amortized portion of the 2004 up-front payment, milestones, if any, and reimbursement of certain of the Company's expenses incurred in telaprevir development. The $105.0 million payment that the Company received in the third quarter of 2009 pursuant to the amended agreement is a nonrefundable, up-front license fee and revenues related to this payment are being recognized on a straight-line basis over the expected period of performance of the Company's obligations under the amended agreement. As of December 31, 2010, there was $51.0 million in deferred revenues related to this up-front license payment that will be recognized over the remaining period of performance of the Company's obligations under the amended agreement. In connection with the amendment to the MTPC Agreement, the Company agreed to supply manufacturing services to Mitsubishi Tanabe through the Company's third-party manufacturing network.

During the three years ended December 31, 2010, the Company recognized the following collaborative revenues attributable to the Mitsubishi Tanabe collaboration:

	2010	2009	2008
		(in thousands)	
Amortized portion of up-front payments	$ 38,232	$ 16,027	$ 167
Development milestone payments	—	—	4,000
Reimbursement for telaprevir development costs	—	1,265	5,685
Payments for manufacturing services	43,636	1,419	—
Total collaborative revenues attributable to the Mitsubishi Tanabe collaboration	$ 81,868	$ 18,711	$ 9,852

Cystic Fibrosis Foundation Therapeutics Incorporated

In May 2004, Vertex entered into an agreement, which was amended in 2006, with Cystic Fibrosis Foundation Therapeutics Incorporated ("CFFT") that provided partial funding for Vertex's cystic fibrosis drug discovery effort. Under the amended agreement, Vertex retains the right to develop and commercialize VX-770, VX-809 and any other compounds discovered in the research collaboration, and will owe royalties to CFFT on net sales of any drug candidate approved and commercialized under the

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

O. Collaborative Arrangements (Continued)

collaboration. Funding under the agreement ended in early 2008. In 2010, 2009 and 2008, Vertex recognized $0, $0.5 million and $0.8 million, respectively, in revenues related to its agreement with CFFT.

Merck & Co., Inc.

In June 2004, Vertex entered into a global collaboration with Merck to develop and commercialize Aurora kinase inhibitors for the treatment of cancer. Merck was responsible for worldwide clinical development and commercialization of any compounds developed under the collaboration and would have been obligated to pay the Company royalties on any product sales. Merck terminated this collaboration agreement in 2010. In 2008, Vertex recognized revenues from a milestone of $6.0 million from this collaboration. The Company did not recognize any revenues from this collaboration in 2010 or 2009.

P. Acquisition of ViroChem Pharma Inc.

On March 12, 2009, the Company acquired 100% of the outstanding equity of ViroChem, a privately-held biotechnology company based in Canada, for $100.0 million in cash and 10,733,527 shares of the Company's common stock. Vertex acquired ViroChem in order to add two clinical-development stage HCV polymerase inhibitors to Vertex's HCV drug development portfolio. At the time of the acquisition, ViroChem was also engaged in research stage activities related to viral diseases and was developing an early-stage drug candidate for the treatment of patients with HIV infection.

The transaction was accounted for under the acquisition method of accounting. All of the assets acquired and liabilities assumed in the transaction were recognized at their acquisition-date fair values, while transaction costs and restructuring costs associated with the transaction were expensed as incurred. The intangible assets and goodwill related to the ViroChem acquisition are tested for impairment on an annual basis as of October 1, and more frequently if indicators are present or changes in circumstances suggest that impairment may exist.

Purchase Price

The $390.6 million purchase price for ViroChem is based on the acquisition-date fair value of the consideration transferred, which was calculated based on the opening price of the Company's common stock of $27.07 per share on March 12, 2009. The acquisition-date fair value of the consideration consisted of the following:

	Fair Value of Consideration (in thousands)
Cash	$ 100,000
Common stock	290,557
Total	$ 390,557

Allocations of Assets and Liabilities

The Company allocated the purchase price for ViroChem to net tangible assets and intangible assets, goodwill and a deferred tax liability. The difference between the aggregate purchase price and

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

P. Acquisition of ViroChem Pharma Inc. (Continued)

the fair value of assets acquired and liabilities assumed was allocated to goodwill. The following table summarizes the fair values of the assets acquired and liabilities assumed at the acquisition date:

	Fair Values as of March 12, 2009 (in thousands)
Cash and cash equivalents	$ 12,578
Other tangible assets	2,701
Intangible assets	525,900
Goodwill	26,102
Accounts payable and accrued expenses	(14,221)
Deferred tax liability	(162,503)
Net assets	$ 390,557

All of the intangible assets acquired in the ViroChem acquisition related to in-process research and development assets. These in-process research and development assets primarily related to ViroChem's two clinical development-stage HCV polymerase inhibitors, VX-222 and VX-759, which accounted for $412.9 million and $105.8 million, respectively, of the intangible assets reflected on the Company's consolidated balance sheets as of December 31, 2010 and December 31, 2009. The Company's consolidated balance sheets also reflect goodwill that relates to the potential synergies from the possible development of combination therapies involving telaprevir and the acquired drug candidates.

In addition, the Company considered ViroChem's other clinical drug candidates and determined that VCH-286, ViroChem's lead HIV drug candidate, had an estimated fair value of $7.2 million at the acquisition date, based on development costs through the acquisition date.

The deferred tax liability of $160.3 million as of December 31, 2010 and December 31, 2009 primarily relates to the tax impact of future amortization or impairments associated with the identified intangible assets acquired from ViroChem, which are not deductible for tax purposes.

The difference between the consideration transferred to acquire the business and the fair value of assets acquired and liabilities assumed was allocated to goodwill. This goodwill relates to the potential synergies from the possible development of combination therapies involving telaprevir and the acquired drug candidates. None of the goodwill is expected to be deductible for income tax purposes.

Intangible Assets and Goodwill Post-acquisition

If the Company completes a project related to an in-process research and development asset, it will amortize as part of cost of revenues the carrying value of the related intangible asset over the remaining estimated life of the asset beginning in the period in which the project is completed. If the Company determines that a project has become impaired or abandons a project, it will write down the carrying value of the related intangible asset to its fair value and will take an impairment charge in the period in which the impairment occurs. The ViroChem intangible assets and goodwill are tested for impairment on an annual basis as of October 1, and more frequently if indicators are present or changes in circumstance suggest that impairment may exist. In connection with each annual impairment assessment and any interim impairment assessment, the Company compares the fair value of the asset

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Notes to Consolidated Financial Statements (Continued)

P. Acquisition of ViroChem Pharma Inc. (Continued)

as of the date of the assessment with the carrying value of the asset on the Company's consolidated balance sheet.

In the fourth quarter of 2009, the Company determined that the fair value of VCH-286 was zero, resulting in a $7.2 million impairment charge. In connection with this impairment charge, the Company also recorded an adjustment of $2.2 million to the deferred tax liability. In the fourth quarter of 2010 and 2009, the Company evaluated VX-759 and VX-222 and the goodwill related to the ViroChem transaction for impairment. No impairment was found for VX-759, VX-222 or the goodwill.

Acquisition-related Expenses, Including Restructuring

In connection with the acquisition of ViroChem, the Company incurred $7.8 million in expenses, which are reflected as acquisition-related expenses on the consolidated statement of operations in 2009. These costs include transaction expenses as well as a restructuring charge the Company incurred in March 2009 when it determined it would restructure ViroChem's operations in order to focus on ViroChem's HCV programs. As a result of this restructuring plan, which was completed in the second quarter of 2009, Vertex recorded a $2.1 million expense related to employee severance, benefits and related costs in 2009.

ViroChem Financial Information

The results of operations of ViroChem have been included in the consolidated financial statements since the acquisition date. ViroChem had no revenues in the period from the acquisition date of March 12, 2009 through December 31, 2009. Pro forma results of operations for the years ended December 31, 2009 and 2008, assuming the acquisition of ViroChem had taken place at the beginning of each period, would not differ significantly from Vertex's actual reported results.

Q. September 2009 Financial Transactions

2012 Notes

On September 30, 2009, the Company sold $155.0 million in aggregate principal amount of secured notes due 2012 (the "2012 Notes") for an aggregate of $122.2 million pursuant to a note purchase agreement with Olmsted Park S.A. (the "Purchaser"). The 2012 Notes were issued pursuant to, and the 2012 Notes are governed by the terms of, an indenture entered into on September 30, 2009 between the Company and U.S. Bank National Association, as trustee and collateral agent. In connection with the issuance of the 2012 Notes, the Company granted a security interest to the Purchaser with respect to $155.0 million of future telaprevir milestone payments that the Company is eligible to earn from Janssen for the future filing, approval and launch of telaprevir in the European Union.

The 2012 Notes were issued at a discount and do not pay current interest prior to maturity. The 2012 Notes will mature on October 31, 2012, subject to earlier mandatory redemption to the extent specified milestone events set forth in the Company's collaboration with Janssen occur prior to October 31, 2012. $100.0 million of these potential milestone payments relate to the regulatory filing with and approval of telaprevir by the European Medicines Agency, and $55.0 million of these potential milestone payments relate to the launch of telaprevir in the European Union. The Company will be required to redeem the portion of the 2012 Notes equal to each milestone payment as each such milestone payment is earned under the Janssen collaboration.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

Q. September 2009 Financial Transactions (Continued)

The holders of the 2012 Notes have the right to cause the Company to repay all or any part of the 2012 Notes at 100% of the principal amount of the 2012 Notes to be repurchased if a change of control of the Company occurs. The Company may also redeem all or any part of the 2012 Notes at any time at 100% of the principal amount of the 2012 Notes to be redeemed. Upon certain events of default occurring and continuing, either the trustee or the holders of not less than 25% in aggregate principal amount of the 2012 Notes then outstanding may declare the principal of the 2012 Notes immediately due and payable. In the case of certain events of bankruptcy, insolvency or reorganization relating to the Company, the principal amount of the 2012 Notes shall automatically become immediately due and payable.

The Company has determined that the 2012 Notes contain an embedded derivative related to the potential mandatory redemption or early repayment of the 2012 Notes at the principal amount prior to their maturity date. The Company bifurcated the embedded derivative from the 2012 Notes because the features of the embedded derivative were not clearly and closely related to the 2012 Notes.

The Company determines the fair value of the embedded derivative based on a probability-weighted model of the discounted value that market participants would ascribe to the potential mandatory redemption and early repayment features of the 2012 Notes. The fair value of this embedded derivative is evaluated quarterly, with any changes in the fair value of the embedded derivative resulting in a corresponding loss or gain. Changes in the fair value of the embedded derivative that result in a loss increase the liability each quarter by an amount corresponding to the loss and changes in the fair value of the embedded derivative that result in a gain decrease the liability each quarter by an amount corresponding to the gain. The Company records quarterly interest expense related to the 2012 Notes determined using the effective interest rate method. The liabilities related to the 2012 Notes, including the embedded derivative, are reflected together on the Company's consolidated balance sheets. As of December 31, 2009, the liabilities related to the 2012 Notes were reflected as long-term. As of December 31, 2010, these liabilities were reflected as current.

Sale of Future Milestone Payments

On September 30, 2009, the Company entered into two purchase agreements with the Purchaser pursuant to which the Company sold its rights to an aggregate of $95.0 million in potential future milestone payments pursuant to the Janssen agreement related to the launch of telaprevir in the European Union, for nonrefundable payments totaling $32.8 million. The purchase agreements contain representations, warranties, covenants and indemnification obligations of each party, including the obligation of the Company to make the milestone payments to the Purchaser when the underlying milestone events are achieved if the Janssen agreement has been terminated.

The Company determined that this sale of a potential future revenue stream should be accounted for as a liability because the Company has significant continuing involvement in the generation of the potential milestone payments pursuant to its collaboration agreement with Janssen. As a result, the Company records a liability on its consolidated balance sheets equal to the fair value of the purchase agreements. No revenues or deferred revenues have been recorded on account of the amounts that the Company received from the Purchaser pursuant to these purchase agreements. In addition, the Company determined that the purchase agreements are free-standing derivative instruments. The aggregate fair value of the free-standing derivatives created by the sale of the rights to future milestone payments to the Purchaser pursuant to the purchase agreements is based on a probability-weighted

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

Q. September 2009 Financial Transactions (Continued)

model of the discounted value that market participants would ascribe to these rights. The models used to estimate the fair value of the rights sold to the Purchaser pursuant to the purchase agreements require the Company to make estimates regarding, among other things, the assumptions market participants would make regarding the timing and probability of achieving the milestones and the appropriate discount rates. The fair value of the rights sold to the Purchaser pursuant to the purchase agreements will be evaluated each reporting period, with any changes in the fair value of the derivative instruments based on the probability of achieving the milestones, the timing of achieving the milestones or discount rates resulting in a corresponding gain or loss. Because the Company's estimate of the fair value of the rights to the future milestone payments includes the application of a discount rate to reflect the time-value-of-money, the Company expects to record costs related to this liability each quarter. As of December 31, 2009, the liability related to sale of the potential future milestone payments was reflected as long-term. As of December 31, 2010, this liability was reflected as current.

Expenses and Liabilities Related to September 2009 Financial Transactions

Due to the positive results the Company obtained from the telaprevir registration program in the second and third quarters of 2010 and Janssen's receipt of accelerated assessment by the European Medicines Agency for the marketing authorization application for telaprevir in the fourth quarter of 2010, the Company revised its estimates regarding the probability and timing of achieving the milestones under the Company's collaboration agreement with Janssen, which resulted in a significant increase in the fair value of the liability related to the sale of potential future milestone payments during 2010.

	Year Ended December 31,	
	2010	2009
	(in thousands)	
Expenses and Losses (Gains):		
Interest expense related to 2012 Notes	$ 15,068	$ 3,465
Change in fair value of embedded derivative related to 2012 Notes	1,637	(200)
Change in fair value of free-standing derivatives related to sale of potential future milestone payments	39,592	2,047
Total September 2009 financial transaction expenses	$ 56,297	$ 5,312

	December 31, 2010	December 31, 2009
	(in thousands)	
Liabilities:		
2012 Notes, excluding fair value of embedded derivative	$ 124,902	$ 111,313
Embedded derivative related to 2012 Notes	12,089	10,452
Liability related to sale of potential future milestone payments	77,799	38,207
Total liabilities related to September 2009 financial transactions	$ 214,790	$ 159,972

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Notes to Consolidated Financial Statements (Continued)

R. Sale of HIV Protease Inhibitor Royalty Stream

In December 1993, the Company and GlaxoSmithKline plc entered into a collaboration agreement to research, develop and commercialize HIV protease inhibitors, including Agenerase (amprenavir) and Lexiva/Telzir (fosamprenavir calcium). Under the collaboration agreement, GlaxoSmithKline agreed to pay the Company royalties on net sales of drugs developed under the collaboration. GlaxoSmithKline has the right to terminate its arrangement with the Company without cause upon twelve months' notice. Termination of the collaboration agreement by GlaxoSmithKline will relieve it of its obligation to make further payments under the agreement and will end any license granted to GlaxoSmithKline by the Company under the agreement. In June 1996, the Company and GlaxoSmithKline obtained a worldwide, non-exclusive license under certain G.D. Searle & Co. ("Searle," now owned by Pharmacia/Pfizer) patents in the area of HIV protease inhibition. Searle is paid royalties based on net sales of Agenerase and Lexiva/Telzir.

On May 30, 2008, the Company entered into a purchase agreement (the "Purchase Agreement") with Fosamprenavir Royalty, L.P. ("Fosamprenavir Royalty") pursuant to which the Company sold, and Fosamprenavir Royalty purchased, the Company's right to receive royalty payments, net of royalty amounts to be earned and due to Searle, arising from sales of Lexiva/Telzir and Agenerase under the Company's 1993 agreement with GlaxoSmithKline, from April 1, 2008 to the end of the term of the collaboration agreement, for a one-time cash payment of $160.0 million to the Company. In accordance with the Purchase Agreement, GlaxoSmithKline makes all royalty payments, net of the subroyalty amounts payable to Searle, directly to Fosamprenavir Royalty. The Purchase Agreement also contains other representations, warranties, covenants and indemnification obligations. The Company continues to be obligated for royalty amounts earned and that are due to Searle. The Company has instructed GlaxoSmithKline to pay such amounts directly to Searle as they become due.

Because the transaction was structured as a non-cancellable sale, the Company has no significant continuing involvement in the generation of the cash flows due to Fosamprenavir Royalty and there are no guaranteed rates of return to Fosamprenavir Royalty, the Company recorded the proceeds as deferred revenues. These deferred revenues are being recognized as royalty revenues over the life of the collaboration agreement because of the Company's continuing involvement in the royalty arrangement over the term of the Purchase Agreement. Such continuing involvement, which is required pursuant to covenants contained in the Purchase Agreement, includes overseeing GlaxoSmithKline's compliance with the collaboration agreement, monitoring and defending patent infringement, adverse claims or litigation involving the royalty stream, undertaking to cooperate with Fosamprenavir Royalty's efforts to find a new license partner if GlaxoSmithKline terminates the collaboration agreement, and complying with the license agreement with Searle, including the obligation to make future royalty payments to Searle.

The Company recorded $155.1 million, representing the proceeds of the transaction less the net royalty payable to Fosamprenavir Royalty for the period from April 1, 2008 through May 30, 2008, as deferred revenues to be recognized as royalty revenues over the life of the collaboration agreement based on the units-of-revenue method. The amount of deferred revenues to be recognized as royalty revenues in each period is calculated by multiplying the following: (1) the net royalty payments due to Fosamprenavir Royalty for the period by (2) the ratio of the remaining deferred revenue amount to the total estimated remaining net royalties that GlaxoSmithKline is expected to pay Fosamprenavir Royalty over the term of the collaboration agreement. As of December 31, 2010, the Company had $112.4 million in deferred revenues related to the Purchase Agreement. In addition, the Company continues to recognize royalty revenues for the portion of the royalty earned that is due to Searle.

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Notes to Consolidated Financial Statements (Continued)

R. Sale of HIV Protease Inhibitor Royalty Stream (Continued)

The Company recognizes royalty expenses in each period based on (i) deferred transaction expenses in the same manner and over the same period during which the related deferred revenues are recognized as royalty revenues plus (ii) the subroyalty paid by GlaxoSmithKline to Searle on net sales of Agenerase and Lexiva/Telzir for the period.

S. Employee Benefits

The Company has a 401(k) retirement plan (the "Vertex 401(k) Plan") in which substantially all of its permanent United States employees are eligible to participate. Participants may contribute up to 60% of their annual compensation to the Vertex 401(k) Plan, subject to statutory limitations. The Company may declare discretionary matching contributions to the Vertex 401(k) Plan that are payable in Vertex common stock. The match is paid in the form of fully vested interests in a Vertex common stock fund. Employees have the ability to transfer funds from the Company stock fund as they choose. As of December 31, 2010, 279,000 shares of common stock remained available for grant under the Vertex 401(k) Plan. The Company declared matching contributions to the Vertex 401(k) Plan as follows:

	2010	2009	2008
	(in thousands)		
Discretionary matching contributions during the year ended December 31,	$ 6,552	$ 6,044	$ 5,027
Shares issued during the year ended December 31,	174	198	195
Shares issuable as of the year ended December 31,	42	35	38

T. Contingencies

The Company has certain contingent liabilities that arise in the ordinary course of its business activities. The Company accrues a reserve for contingent liabilities when it is probable that future expenditures will be made and such expenditures can be reasonably estimated. There were no material contingent liabilities accrued as of December 31, 2010 or 2009.

U. Guarantees

As permitted under Massachusetts law, the Company'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 directors' and officers' liability insurance policies that could reduce its monetary exposure and enable it to recover a portion of any future amounts paid. No indemnification claims are currently outstanding and the Company believes the estimated fair value of these indemnification arrangements is minimal.

The Company customarily agrees in the ordinary course of its business to indemnification provisions in agreements with clinical trial investigators and sites 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 and in its real estate leases. The Company also customarily agrees to certain indemnification provisions in its drug discovery, development and commercialization collaboration agreements. With respect to the Company's clinical trials and sponsored research agreements, these indemnification provisions typically apply to any claim

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

U. Guarantees (Continued)

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 indemnification obligation generally survives the termination of the agreement for some extended period, although the obligation typically 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. The Company has purchased insurance policies covering personal injury, property damage and general liability that reduce its exposure for indemnification and would enable it 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.

In March 2003, the Company sold certain assets of PanVera LLC to Invitrogen Corporation for approximately $97 million. In December 2003, the Company sold certain instrumentation assets to Aurora Discovery, Inc. for approximately $4.3 million. The agreements with the buyers each require the Company to indemnify the buyer against any loss it may suffer by reason of Vertex's breach of certain representations and warranties, or failure to perform certain covenants, contained in such agreement. The representations, warranties and covenants contained in the agreements are of a type customary in agreements of this sort. The Company's aggregate obligations under the indemnity contained in each agreement are, with a few exceptions which the Company believes are not material, capped at one-half of the applicable purchase price, and apply to claims under representations and warranties made within fifteen months after closing (which period has ended) although there is no corresponding time limit for claims made based on breaches of covenants. Neither Invitrogen nor Aurora has made any claims to date under the applicable indemnities, and the Company believes that the estimated fair value of the remaining indemnification obligations is minimal.

On February 12, 2008, the Company entered into underwriting agreements with Merrill Lynch, Pierce, Fenner & Smith Incorporated; on September 18, 2008, the Company entered into an underwriting agreement with Goldman, Sachs & Co.; on February 18, 2009, the Company entered into an underwriting agreement with Merrill Lynch, Pierce, Fenner & Smith Incorporated; on December 2, 2009, the Company entered into an underwriting agreement with Goldman, Sachs & Co.; and on September 23, 2010, the Company entered into an underwriting agreement with Merrill Lynch, Pierce, Fenner & Smith Incorporated (collectively, the "Underwriting Agreements"), in each case as the representative of the several underwriters, if any, named in such agreements, relating to the public offering and sale of shares of the Company's common stock or convertible senior subordinated notes. The Underwriting Agreement relating to each offering requires the Company to indemnify the underwriters of that public offering against any loss they may suffer by reason of the Company's breach of any representation or warranty relating to that public offering, the Company's failure to perform certain covenants in those agreements, the inclusion of any untrue statement of material fact in the

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

U. Guarantees (Continued)

prospectus used in connection with that offering, the omission of any material fact needed to make those materials not misleading, and any actions taken by the Company or its representatives in connection with the offering. The representations, warranties and covenants in the Underwriting Agreements are of a type customary in agreements of this sort. The Company believes the estimated fair value of these indemnification arrangements is minimal.

V. Subsequent Event

On January 7, 2011, the Company entered into a credit agreement with Bank of America, N.A. as administrative agent and lender. The credit agreement provides for a $100.0 million revolving credit facility that is initially unsecured.

The Company may elect that the loans under the credit agreement bear interest at a rate per annum equal to (i) LIBOR plus 1.50%, or (ii) the rate of interest publicly announced from time to time by Bank of America as its prime rate. The Company may prepay the loans, in whole or in part, in minimum amounts without premium or penalty, other than customary breakage costs with respect to LIBOR borrowings. The Company may borrow, repay and reborrow under the facility until July 6, 2012, at which point the facility terminates.

The agreement contains customary representations and warranties, affirmative and negative covenants and events of default, including payment defaults, defaults for breaches of representations and warranties, covenant defaults and cross defaults. The credit agreement also requires that the Company comply with certain financial covenants, including a covenant that requires the Company to maintain at least $400.0 million in cash, cash equivalents and marketable securities in domestic deposit and securities accounts and a covenant that limits the Company's quarterly net losses.

The obligations of the lender to make an initial advance under the credit agreement are subject to a number of conditions, including a satisfactory due diligence review of the Company's financial position and business. Also, if, prior to an initial borrowing under the credit agreement, the Company engages in certain investment, acquisition or disposition transactions or prepays indebtedness, such activities could restrict the Company's ability to borrow under the credit agreement.

If the Company borrows under the credit agreement, the Company will become subject to certain additional negative covenants, subject to exceptions, restricting or limiting the Company's ability and the ability of the Company's subsidiaries to, among other things, grant liens, make certain investments, incur indebtedness, make certain dispositions and prepay indebtedness.

If the Company defaults under certain provisions of the credit agreement, including any default of a financial covenant, the loans will become secured by the Company's cash, cash equivalents and marketable securities with a margined value of $100.0 million. In addition, if an event of default occurs, the interest rate would increase and the administrative agent would be entitled to take various actions, including the acceleration of payment of amounts due under the loan.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

W. Quarterly Financial Data (unaudited)

	Three Months Ended			
	March 31, 2010	June 30, 2010	Sept. 30, 2010	Dec. 31, 2010
	(in thousands, except per share amounts)			
Revenues:				
Royalty revenues	$ 6,407	$ 7,262	$ 8,173	$ 8,402
Collaborative revenues	16,022	24,360	15,622	57,122
Total revenues	22,429	31,622	23,795	65,524
Costs and expenses:				
Royalty expenses	3,367	3,086	3,228	3,049
Research and development expenses	143,012	155,082	170,434	168,888
Sales, general and administrative expenses	35,552	40,915	48,855	62,478
Restructuring expense	780	2,112	866	(2,257)
Total costs and expenses	182,711	201,195	223,383	232,158
Loss from operations	(160,282)	(169,573)	(199,588)	(166,634)
Interest income	455	484	493	523
Interest expense	(3,955)	(3,683)	(3,951)	(7,686)
Change in fair value of derivative instruments	(1,489)	(27,234)	(5,911)	(6,595)
Net loss	$ (165,271)	$ (200,006)	$ (208,957)	$ (180,392)
Basic and diluted net loss per common share	$ (0.83)	$ (1.00)	$ (1.04)	$ (0.90)
Basic and diluted weighted-average number of common shares outstanding	198,935	200,397	200,887	201,355

	Three Months Ended			
	March 31, 2009	June 30, 2009	Sept. 30, 2009	Dec. 31, 2009
	(in thousands, except per share amounts)			
Revenues:				
Royalty revenues	$ 6,140	$ 5,917	$ 7,834	$ 8,429
Collaborative revenues	17,839	13,147	17,123	25,460
Total revenues	23,979	19,064	24,957	33,889
Costs and expenses:				
Royalty expenses	3,576	3,267	3,712	3,647
Research and development expenses	143,581	139,331	132,132	135,230
Sales, general and administrative expenses	28,520	32,526	36,572	32,574
Restructuring expense	2,402	1,107	774	1,957
Intangible asset impairment charges	—	—	—	7,200
Acquisition-related expenses	7,793	—	—	—
Total costs and expenses	185,872	176,231	173,190	180,608
Loss from operations	(161,893)	(157,167)	(148,233)	(146,719)
Interest income	2,599	1,489	595	327
Interest expense	(3,378)	(3,325)	(1,927)	(4,562)
Change in fair value of derivative instruments	—	—	—	(1,847)
Loss on exchanges of convertible senior subordinated notes (due 2013)	—	(12,294)	—	(5,843)
Net loss	$ (162,672)	$ (171,297)	$ (149,565)	$ (158,644)
Basic and diluted net loss per common share	$ (1.04)	$ (0.99)	$ (0.84)	$ (0.86)
Basic and diluted weighted-average number of common shares outstanding	155,860	172,563	178,735	185,492

Exhibit 10.49

Vertex Employee Compensation Plan

On an annual basis in the first quarter of the fiscal year the Management Development and Compensation Committee of our Board of Directors adopts an employee compensation plan for our officers and other employees, including our named executive officers, together with performance goals for that fiscal year. The plan addresses three components of employee compensation—base salary, performance bonuses which serve as short-term incentives and equity grants which serve as long-term incentives—that are designed to motivate, reward and retain employees by aligning compensation with the achievement of strategic corporate goals.

Upon completion of each performance period (usually a calendar year), our Board of Directors assigns a performance rating on the basis of achievement of goals for the company set by the Board, in consultation with our chief executive officer, early in the performance period. The amount available for payment of performance bonuses is established on the basis of this performance rating, and is allocated to employees on the basis of salary tier and individual performance rating. The base salaries of the executive officers are set based on market and other competitive factors. Merit increases to base salaries for other employees are made on the basis of individual performance rating. Annual equity grants, made in the form of stock options, restricted stock grants, or a combination of both are made on the basis of salary tier and individual performance.

The Board of Directors retains broad discretion to determine the appropriate form and level of compensation, particularly for our executives, on the basis of its assessment of our executives, the demand for talent, our performance and other factors. Key corporate performance factors generally include, among other things, achievement of regulatory and commercialization goals, research and development productivity, enhancements of organizational capabilities, maintenance of financial stability and other aspects of our performance. We reserve the right to modify the plan, and the key corporate performance factors and criteria under the plan, at any time.

On February 3, 2011, the Board of Directors determined the cash bonus awards related to the fiscal year ended December 31, 2010 and annual salaries effective February 2011. The cash bonus awards for 2010 and annual salaries for 2011 for the following executive officers were:

Name	2010 Cash Bonus	2011 Salary
Matthew W. Emmens	$ 2,931,638	$ 1,166,990
Peter Mueller	$ 509,850	$ 583,495
Ian F. Smith	$ 459,000	$ 525,300
Nancy J. Wysenski	$ 426,300	$ 504,700
Kenneth S. Boger	$ 342,563	$ 463,500

Exhibit 10.50

Vertex Pharmaceuticals Non-Employee Board Compensation

Annual Retainer:	$25,000
Board Meeting Fees	
In-Person Board Meetings	$2,500
Telephonic Board Meetings	$1,250 (none for meetings called for less than 30 minutes)
Committee Meeting Fees	
In-Person on Regular Board Meeting Day	$500
In-Person Meeting held on Day other than regular Board Meeting Day	$1,000
Telephone Meeting	$375
Committee Chair Compensation	
Audit & Finance Chair	$20,000 annual retainer
Corporate Governance & Nominating Committee Chair	$20,000 annual retainer
Management Development & Compensation Committee Chair	$14,000 annual retainer
Equity Grants	Upon first election to the Board, 30,000 options, vesting quarterly over four years; and On June 1 of each year in service, 20,000 fully vested options On June 1 of each year, 2,500 fully vested options for the Chairman of the Board, if independent, or the Lead Independent Director.

Exhibit 21.1

SUBSIDIARIES OF VERTEX PHARMACEUTICALS INCORPORATED

Vertex Pharmaceuticals (San Diego) LLC, a Delaware limited liability company

Vertex Pharmaceuticals (North America) LLC, a Delaware limited liability company (1)

VSD Sub II LLC, a Delaware limited liability company (2)

Vertex Securities Corporation, a Massachusetts corporation

Vertex Pharmaceuticals (Cayman) Limited, a Cayman Islands company

Vertex Holdings, Inc., a Delaware corporation

Vertex Securities Trust, a Massachusetts business trust (3)

Vertex Pharmaceuticals (Europe) Ltd., a United Kingdom limited liability company (4)

0846727 B.C. Ltd., a British Columbia company

Vertex Pharmaceuticals (Canada) Incorporated, a Canadian company (5)

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(1) a subsidiary of Vertex Pharmaceuticals (San Diego) LLC

(2) a subsidiary of Vertex Pharmaceuticals (North America) LLC

(3) a subsidiary of Vertex Holdings, Inc.

(4) jointly held by Vertex Securities Trust and Vertex Holdings, Inc.

(5) a subsidiary of 0846727 B.C. Ltd.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements (Form S-8 Nos. 33-48030, 33-48348, 33-65472, 333-65666, 33-93324, 333-12325, 333-27011, 333-56179, 333-65664, 333-79549, 333-104362, 333-115458, 333-134482, 333-147277, 333-150946, 333-150945, 333-160442, and 333-166803, and Form S-3 Nos. 333-153543 and 333-165002) of Vertex Pharmaceuticals Incorporated of our reports dated February 17, 2011, with respect to the consolidated financial statements of Vertex Pharmaceuticals Incorporated and the effectiveness of internal control over financial reporting of Vertex Pharmaceuticals Incorporated, included in this Annual Report (Form 10-K) for the year ended December 31, 2010.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 17, 2011

Exhibit 31.1

CERTIFICATION

I, Matthew W. Emmens, certify that:

1. I have reviewed this Annual Report on Form 10-K of Vertex Pharmaceuticals Incorporated;

2. Based on my knowledge, this 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 report;

3. Based on my knowledge, the financial statements, and other financial information included in this 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 report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, 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 report is being prepared;

   (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 17, 2011

/s/ Matthew W. Emmens

Matthew W. Emmens
Chief Executive Officer, Chairman and President

Exhibit 31.2

CERTIFICATION

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 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 report;

3. Based on my knowledge, the financial statements, and other financial information included in this 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 report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, 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 report is being prepared;

   (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 17, 2011

/s/ Ian F. Smith

Ian F. Smith
Executive Vice President and Chief Financial Officer

Exhibit 32.1

SECTION 906 CEO/CFO 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) each of the undersigned officers of Vertex Pharmaceuticals Incorporated, a Massachusetts corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

The Annual Report on Form 10-K for the year ended December 31, 2010 (the "Form 10-K") of the Company fully complies with the requirements of Section 13(a) or 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.

Date: February 17, 2011

/s/ Matthew W. Emmens

Matthew W. Emmens
Chief Executive Officer, Chairman and President

Date: February 17, 2011

/s/ Ian F. Smith

Ian F. Smith
Executive Vice President and 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.