

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, 2014

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)

50 Northern Avenue, Boston, Massachusetts

(Address of principal executive offices)

04-3039129

(I.R.S. Employer
Identification No.)

02210

(Zip Code)

Registrant's telephone number, including area code **(617) 341-6100**

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

<u>Title of Each Class</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock, \$0.01 Par Value Per Share	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 (§232.405 of this chapter) 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 (§229.405 of this chapter) 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

Smaller reporting company

(Do not check if a 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, 2014 (the last trading day of the registrant's second fiscal quarter of 2014) was \$22.4 billion . As of January 31, 2015 , the registrant had 242,088,884 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement for the 2015 Annual Meeting of Shareholders to be held on June 4, 2015 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.

“Vertex,” “KALYDECO™” and “INCIVEK®” are registered trademarks of Vertex. Other brands, names and trademarks contained in this Annual Report on Form 10-K are the property of their respective owners.

PART I

ITEM 1. BUSINESS

OVERVIEW

We are in the business of discovering, developing, manufacturing and commercializing small molecule drugs. We use precision medicine approaches to create transformative drugs for patients with serious diseases in specialty markets. Our business is focused on developing and commercializing therapies for the treatment of cystic fibrosis, or CF, and advancing our research and early-stage development programs, while maintaining our financial strength.

Cystic Fibrosis

Our goal is twofold: to develop treatment regimens that will provide benefits to as many patients with CF as possible and to enhance those benefits.

KALYDECO

KALYDECO (ivacaftor) was approved in 2012 in the United States and European Union as a treatment for patients with CF six years of age and older who have the G551D mutation in their cystic fibrosis transmembrane conductance regulator, or *CFTR*, gene. In 2014, we increased the number of patients who are being treated with KALYDECO in the United States and non-U.S. markets by expanding the label for KALYDECO to include patients with CF six years of age and older who have additional mutations in their *CFTR* gene. In addition, we have submitted applications to regulatory authorities to further expand the label for KALYDECO to include patients with CF two to five years of age with specific gating mutations in their *CFTR* gene and to include patients with CF 18 years of age and older in Europe who have the R117H mutation in their *CFTR* gene.

Lumacaftor in Combination with Ivacaftor

In June 2014, we announced data from two Phase 3 clinical trials, referred to as TRAFFIC and TRANSPORT, of lumacaftor, a CFTR corrector compound, in combination with ivacaftor, a CFTR potentiator compound. In TRAFFIC and TRANSPORT, we evaluated the combination regimen in patients with CF twelve years of age and older who have two copies (homozygous) of the F508del mutation in their *CFTR* gene, which is the most prevalent form of CF. In November 2014, we submitted a New Drug Application, or NDA, to the United States Food and Drug Administration, or FDA, and a Marketing Authorization Application, or MAA, to the European Medicines Agency, or EMA, for lumacaftor in combination with ivacaftor. The FDA has granted us priority review of the NDA and the target date for the FDA to complete its review of the NDA under the Prescription Drug User Fee Act, or PDUFA, is July 5, 2015. Our request for Accelerated Assessment of the MAA has been granted, and we expect the EMA to complete its review of the MAA in the fourth quarter of 2015.

VX-661 in Combination with Ivacaftor

In 2015, we initiated a Phase 3 development program for VX-661 in combination with ivacaftor in patients with CF twelve years of age and older, including patients who are homozygous for the F508del mutation in their *CFTR* gene and patients with CF who have one copy of the F508del mutation in their *CFTR* gene (heterozygous).

CF Research Programs

We also are seeking to identify and develop next-generation CFTR corrector compounds that could be evaluated in future dual- and/or triple-combination treatment regimens with the potential to provide additional benefits to patients with CF. We have multiple next-generation correctors in the lead-optimization stage of research and expect to begin clinical development of a next-generation corrector in 2015.

Research and Early-stage Development Programs

We are engaged in a number of other research and early-stage development programs, including programs in the areas of oncology and neurology. We plan to continue investing in our research programs and fostering scientific innovation in order to identify and develop transformative medicines with a focus on CF and other genetic diseases, oncology and neurology. We believe that pursuing research in diverse areas allows us to balance the risks inherent in drug development and may provide drug candidates that will form our pipeline in future years.

CYSTIC FIBROSIS

Background

CF is a rare, life-threatening genetic disease affecting approximately 75,000 people in North America, Europe and Australia. CF is caused by a defective or missing CFTR protein resulting from mutations in the *CFTR* gene. To develop CF, children must inherit two defective *CFTR* genes, which are referred to as alleles - one from each parent. There are more than 1,900 known mutations in the *CFTR* gene, some of which result in CF, including two of the most prevalent mutations, the G551D mutation and the F508del mutation.

The G551D mutation results in a defect in the CFTR protein in which the defective CFTR protein reaches the surface of a cell but does not efficiently transport chloride ions across the cell membrane. The F508del mutation results in a defect in the CFTR protein in which the CFTR protein does not reach the surface of cells in sufficient quantities. The absence of working CFTR proteins results in poor flow of salt and water into and out of cells in a number of organs, including the lungs. As a result, thick, sticky mucus builds up and blocks the passages in many organs, leading to a variety of symptoms. In particular, mucus builds up and clogs the airways in the lungs, causing chronic lung infections and progressive lung damage. Patients with CF often experience pulmonary exacerbations and periods of worsening signs or symptoms of the disease, often requiring treatment with antibiotics and/or hospitalization. Ivacaftor, a CFTR potentiator, keeps the CFTR protein channels on the cell surface open more often, to increase the flow of salt and water into and out of the cell. CFTR correctors, such as lumacaftor and VX-661, are believed to help CFTR protein reach the cell surface.

We chose to develop KALYDECO (ivacaftor) and our other CF drug candidates because of their potential to improve the function of defective CFTR proteins in patients with CF, which is the underlying cause of CF. Our research group is continuing to work to identify additional corrector compounds that could be included in future dual- and/or triple-combination treatment regimens with the potential to provide additional benefits to patients with CF. We have multiple next-generation correctors in the lead-optimization stage of research and expect to begin clinical development of a next-generation corrector in 2015. We hold worldwide development and commercialization rights to ivacaftor, lumacaftor and VX-661.

Our ivacaftor development program for additional indications has received a Breakthrough Therapy designation from the FDA. The FDA also has designated the combination regimens of lumacaftor with ivacaftor and VX-661 with ivacaftor for the treatment of patients with CF who have the F508del mutation on both alleles as Breakthrough Therapies.

KALYDECO (ivacaftor)

KALYDECO (ivacaftor) is an orally-administered CFTR potentiator that is approved in the United States, Australia, Canada and the European Union for the treatment of patients six years of age and older with CF who have specific mutations in their *CFTR* gene. In the United States, these mutations are G551D, G178R, S549N, S549R, G551S, G1244E, S1251N, S1255P, G1349D and R117H. KALYDECO has received recognition as a significant innovation in drug development. In the press release announcing KALYDECO's approval, the FDA identified KALYDECO as an excellent example of the promise of personalized medicine and a breakthrough therapy for the CF community, because other existing therapies treat only the symptoms of this genetic disease, while KALYDECO addresses the underlying cause. During development, ivacaftor was granted orphan drug designation in the United States and European Union and Fast-track designation in the United States. We use the brand name KALYDECO only when we refer to the product that has been approved and with respect to the indications on the approved label. Otherwise, including in discussions of our CF development programs, we refer to the compound by its scientific (or generic) name ivacaftor.

KALYDECO was initially approved in 2012 in the United States and European Union as a treatment for patients with CF six years of age and older who have the G551D mutation in their *CFTR* gene. In February 2014, the FDA approved KALYDECO for the treatment of patients with CF six years of age and older who have one of eight other mutations in their *CFTR* gene, which were studied in our first Phase 3 label-expansion clinical trial for ivacaftor. In July 2014, the European Commission approved KALYDECO for this patient group. In December 2014, the FDA approved KALYDECO for the treatment of patients six years of age and older who have the R117H in their *CFTR* gene. We believe there are more than 3,100 people with CF six years of age and older in North America, Europe and Australia who currently are eligible for treatment with KALYDECO.

We have completed a Phase 3 clinical trial to evaluate ivacaftor as a treatment for children with CF two to five years of age with specific gating mutations in their *CFTR* gene, including the G551D mutation, and have submitted an NDA to the FDA and an MAA line extension application to the EMA based on this clinical trial. The target date for the FDA to complete

its review of this NDA under PDUFA is March 17, 2015. We believe there are approximately 300 children with CF two to five years of age who have gating mutations in North America, Europe and Australia. We also have submitted an MAA variation to the EMA for ivacaftor for patients with CF 18 years of age and older with the R117H mutation in their *CFTR* gene.

Lumacaftor in Combination with Ivacaftor

Lumacaftor is an orally-administered CFTR corrector drug candidate that we are developing in combination with ivacaftor. In November 2014, we submitted an NDA to the FDA and an MAA to the EMA for lumacaftor in combination with ivacaftor in patients with CF twelve years of age and older who have two copies (homozygous) of the F508del mutation in their *CFTR* gene. In 2015, we submitted in Canada, and expect to submit in Australia, regulatory applications seeking approval for lumacaftor in combination with ivacaftor. These regulatory applications were based on TRAFFIC and TRANSPORT, two Phase 3 randomized, double-blind, placebo-controlled clinical trials of lumacaftor in combination with ivacaftor. The FDA has granted us priority review of the NDA and the European Committee for Medicinal Products has granted our request for Accelerated Assessment of the MAA. The target date for the FDA to complete its review of the NDA for the combination under PDUFA is July 5, 2015. We believe that there are approximately 22,000 patients with CF twelve years of age and older who have two copies of the F508del mutation in North America, Europe and Australia, including approximately 8,500 in the United States and approximately 12,000 in Europe.

We completed TRAFFIC and TRANSPORT in the second quarter of 2014. The combination treatment groups evaluated lumacaftor dosed at either 600 mg once daily or 400 mg every 12 hours in combination with ivacaftor dosed at 250 mg every 12 hours. 1,108 patients enrolled and received at least one dose of study drug in the two clinical trials. The primary endpoint in each of TRAFFIC and TRANSPORT was the mean absolute change from baseline in percent predicted forced expiratory volume in one second, or ppFEV₁, at the end of the 24-week treatment period as assessed by the average change in lung function at Week 16 and at Week 24. All four treatment arms within TRAFFIC and TRANSPORT met their primary endpoint. Additionally, statistically significant mean absolute and relative improvements in lung function were observed for all four treatment groups, both within group and versus placebo, at all time-points within the clinical trials (Weeks 2, 4, 8, 16 and 24). The result of statistical testing is often defined in terms of a “p-value,” with p<0.05 generally considered to represent a statistically significant difference. As patients in the clinical trials continued to be treated with their standard CF medicines, improvements observed for patients in the combination treatment arms were in addition to any benefits experienced with the use of other CF medicines.

Detailed data from each arm of TRAFFIC and TRANSPORT are provided below:

Change in ppFEV ₁		TRAFFIC Trial			TRANSPORT Trial		
		Placebo (n=184)	Lumacaftor (600 mg once daily) + Ivacaftor (250 mg q12h) (n=183)	Lumacaftor (400 mg q12h) + Ivacaftor (250 mg q12h) (n=182)	Placebo (n=187)	Lumacaftor (600 mg once daily) + Ivacaftor (250 mg q12h) (n=185)	Lumacaftor (400 mg q12h) + Ivacaftor (250 mg q12h) (n=187)
Mean Absolute Change (percentage points)	Treatment Difference	N/A	4.0 (p<0.0001)	2.6 (p=0.0003)	N/A	2.6 (p=0.0004)	3.0 (p<0.0001)
	Within Group	-0.44 (p=0.4002)	3.6 (p<0.0001)	2.2 (p<0.0001)	-0.15 (p=0.7744)	2.5 (p<0.0001)	2.9 (p<0.0001)
Mean Relative Change (%)	Treatment Difference	N/A	6.7% (p<0.0001)	4.3% (p=0.0006)	N/A	4.4% (p=0.0007)	5.3% (p<0.0001)
	Within Group	-0.34% (p=0.7113)	6.4% (p<0.0001)	4.0% (p<0.0001)	0.0% (p=0.9983)	4.4% (p<0.0001)	5.3% (p<0.0001)

Within TRAFFIC and TRANSPORT, patients who received the combination regimens experienced a 28 to 43 percent decrease in the rate of pulmonary exacerbations (events of worsening signs and symptoms of the disease requiring treatment with antibiotics) over the 24-week treatment period compared to placebo. Detailed data for all key secondary endpoints from each arm of the clinical trials are provided below:

Key Secondary Endpoints		TRAFFIC Trial			TRANSPORT Trial		
		Placebo (n=184)	Lumacaftor (600 mg once daily) + Ivacaftor (250 mg q12h) (n=183)	Lumacaftor (400 mg q12h) + Ivacaftor (250 mg q12h) (n=182)	Placebo (n=187)	Lumacaftor (600 mg once daily) + Ivacaftor (250 mg q12h) (n=185)	Lumacaftor (400 mg q12h) + Ivacaftor (250 mg q12h) (n=187)
Change in Body Mass Index	Treatment Difference	N/A	+0.16 (p=0.1122)	+0.13 (p=0.1938)	N/A	+0.41 (p<0.0001)	+0.36 (p=0.0001)
	Within Group	+0.19 (p=0.0065)	+0.35 (p<0.0001)	+0.32 (p<0.0001)	+0.07 (p=0.2892)	+0.48 (p<0.0001)	+0.43 (p<0.0001)
Change in CFQ-R	Treatment Difference	N/A	+3.9 (p=0.0168)	+1.5 (p=0.3569)	N/A	+2.2 (p=0.1651)	+2.9 (p=0.0736)
	Within Group	+1.1 (p=0.3423)	+5.0 (p<0.0001)	+2.6 (p=0.0295)	+2.8 (p=0.0152)	+5.0 (p<0.0001)	+5.7 (p<0.0001)
Patients with 5% or Greater Relative Improvement in ppFEV ₁	%	22%	46%	37%	23%	46%	41%
	Odds Ratio	N/A	2.94 (p<0.0001)	2.06 (p=0.0023)	N/A	2.96 (p<0.0001)	2.38 (p=0.0001)
Number of Pulmonary Exacerbations	Number of Events (rate per 48 weeks)	112 (1.07)	79 (0.77)	73 (0.71)	139 (1.18)	94 (0.82)	79 (0.67)
	Rate Ratio	N/A	0.72 (p=0.0491)	0.66 (p=0.0169)	N/A	0.69 (p=0.0116)	0.57 (p=0.0002)

The combination regimens were generally well tolerated. The most common adverse events, regardless of treatment group, were infective pulmonary exacerbation, cough, headache and increased sputum, and adverse events that occurred more frequently in patients who received the combination regimens than those who received placebo were generally respiratory in nature and included dyspnea and respiration abnormal. 4.2 percent of all patients who received combination therapy, regardless of dosing group, discontinued treatment because of adverse events compared to 1.6 percent of those who received placebo. Across TRAFFIC and TRANSPORT, elevated liver enzymes (greater than three times the upper limit of normal) were observed in 5.2 percent of patients who received combination therapy compared to 5.1 percent of those who received placebo. Seven patients who received combination therapy experienced serious adverse events related to abnormal liver function tests, compared to zero patients who received placebo. Following discontinuation or interruption of the combination treatment, liver function tests returned to baseline for six of the seven patients and the seventh patient's liver function tests improved substantially.

We also plan to initiate a clinical trial of lumacaftor in combination with ivacaftor in children with CF six to eleven years of age who have two copies of the F508del mutation in their *CFTR* gene in the first half of 2015. This clinical trial is expected to evaluate the combination regimen as part of a single-arm, open-label design in approximately 50 children. The primary endpoint of this clinical trial will be safety and pharmacokinetics.

VX-661 in Combination with Ivacaftor

VX-661 is an orally-administered CFTR corrector drug candidate that we are developing in combination with ivacaftor. We have initiated a Phase 3 development program for VX-661 in combination with ivacaftor in patients with CF twelve years of age and older. The initiation of this Phase 3 development program was based on safety and efficacy data from Phase 2 clinical trials of VX-661, including interim data from an ongoing 12-week Phase 2 clinical trial and a previously completed clinical trial of VX-661 in combination with ivacaftor in patients with CF who have two copies of the F508del mutation and in patients with CF who have one copy of the F508del mutation and one copy of the G551D mutation, and recent regulatory discussions regarding the design of the Phase 3 development program. This Phase 3 development program is expected to consist of four clinical trials that will evaluate VX-661 as follows:

- *Two Copies of the F508del Mutation.* In 2015, we initiated a Phase 3 clinical trial to evaluate the combination of VX-661 and ivacaftor in patients with CF twelve years of age and older who have two copies of the F508del mutation in their *CFTR* gene. The primary endpoint of this clinical trial is absolute change in ppFEV₁ through six months of treatment for patients who receive the combination treatment versus patients who receive placebo. This clinical trial is expected to enroll approximately 500 patients.
- *One Copy of the F508del Mutation and a Second Mutation That Results in a Gating Defect in the CFTR Protein .* In the second quarter of 2015, we plan to initiate a Phase 3 clinical trial to evaluate the combination of VX-661 and ivacaftor in patients with CF who have one copy of the F508del mutation in their *CFTR* gene and a second mutation in their *CFTR* gene that results in a gating defect in the CFTR protein. The primary endpoint of this clinical trial is expected to be absolute change in ppFEV₁ through eight weeks of treatment for patients who receive the combination treatment versus patients who receive ivacaftor alone. This clinical trial is expected to enroll approximately 200 patients.
- *One Copy of the F508del Mutation and a Second Mutation That Results in Residual CFTR Function.* In the second quarter of 2015, we plan to initiate a Phase 3 clinical trial to evaluate the combination of VX-661 and ivacaftor in patients with CF who have one copy of the F508del mutation in their *CFTR* gene and a second mutation in their *CFTR* gene that results in residual CFTR function. This clinical trial also will evaluate ivacaftor dosed without VX-661. The primary endpoint of this clinical trial will be absolute change in ppFEV₁ through eight weeks of treatment as part of a crossover design. This clinical trial is expected to enroll approximately 300 patients.
- *One Copy of the F508del Mutation and A Second Mutation That Results in Minimal CFTR Function.* In the second quarter of 2015, we plan to initiate a Phase 3 clinical trial to evaluate the combination of VX-661 and ivacaftor in patients who have one copy of the F508del mutation in their *CFTR* gene and a second mutation in their *CFTR* gene that results in minimal CFTR function. This clinical trial is expected initially to enroll approximately 120 patients, and the primary endpoint will be absolute change in ppFEV₁ through 12 weeks of treatment for patients who receive the combination treatment versus patients who receive placebo. Expansion of this clinical trial to an additional approximately 150 patients will depend on an interim futility analysis of efficacy data from the initial approximately 120 patients.

HCV INFECTION

INCIVEK (telaprevir) is an orally-administered HCV protease inhibitor for adults with genotype 1 HCV infection that was prescribed in combination with pegylated-interferon and ribavirin. INCIVEK achieved rapid acceptance for the treatment of patients with genotype 1 HCV infection in the United States and accounted for a majority of our net product revenues in 2011, 2012 and 2013. However, INCIVEK revenues declined rapidly after reaching a peak in the fourth quarter of 2011. In 2013, in response to declining sales of INCIVEK and increased competition, we reduced our focus on marketing INCIVEK and eliminated the U.S. field-based sales force that had been promoting INCIVEK. We have withdrawn INCIVEK from the market in the United States, and we expect to wind-down any remaining activities relating to the field of HCV infection in 2015.

Our collaborators, Janssen Pharmaceutica NV and Mitsubishi Tanabe Pharma Corporation, retain fully-paid licenses to telaprevir and currently market telaprevir in their respective territories. In the fourth quarter of 2014, we provided notice of termination of the collaboration with Alios BioPharma, Inc. that related to the development of HCV nucleotide analogues.

RESEARCH AND EARLY-STAGE DEVELOPMENT 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 platform integrates genetics, biology, pharmacology, drug metabolism and pharmacokinetics, toxicology, material sciences, biophysics, medicinal chemistry and process chemistry, automation and information technologies in a coordinated fashion throughout the discovery process. We believe that our approach has been validated through our success in moving novel drug candidates into clinical trials and obtaining marketing approvals for KALYDECO and INCIVEK. Currently, the disease areas of highest priority to us from a research perspective are: CF and other genetic diseases; cancer; and neurological diseases and disorders. We focus our research activities on products that would be prescribed by specialist physicians for the treatment of rare or life-threatening diseases, which are referred to as specialty markets. In CF, our research group is working to identify additional corrector compounds that could be included in future dual- and/or triple-combination treatment regimens that have the

potential to provide additional benefits to patients with CF. We expect to begin clinical development of a next-generation corrector in 2015.

Driven by the disease areas selected, we attempt to identify multiple approaches within each indication that, either as a stand-alone therapy or combination therapy, could provide treatment options that are transformational in nature. We select disease areas by mapping our research strengths onto disease areas with high unmet medical need, with an emphasis on indications, where based on scientific insights, we believe that we, independently or in collaboration with third parties, will be able to discover, develop and commercialize important medicines for serious diseases.

Our 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 will continue to create value for us by generating new drug candidates in areas of significant unmet medical need. For example, in oncology, we are developing VX-803 and VX-970, which are designed to regulate the repair of damaged DNA within cancer cells through inhibition of a protein kinase known as ATR. We believe that ATR inhibition may enhance the efficacy of conventional DNA-damaging agents that are central to the efficacy of numerous established cancer therapies. As a result, we believe that ATR inhibitors could be useful agents in a number of oncology indications either alone or in combination with other drugs. We are evaluating VX-803 and VX-970 in open-label, Phase 1 clinical trials in patients with advanced solid tumors. We expect to initiate clinical development for one or more additional compounds from our research programs in 2015.

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 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.

COMMERCIAL ORGANIZATION

Our commercial organization focuses on supporting sales of KALYDECO in the United States, Europe, Canada and Australia and is preparing to support sales of lumacaftor in combination with ivacaftor. Our sales and marketing organizations are responsible for promoting products to health care providers and obtaining reimbursement for products from third-party payors, including governmental organizations in the United States and non U.S. markets.

Our U.S. field-based CF commercial team includes approximately 20 therapeutic specialists, which we believe will be sufficient to support future needs, including potential sales of lumacaftor in combination with ivacaftor. We focus our CF marketing efforts in the United States on a relatively small number of physicians and health care professionals who write most of the prescriptions for CF medicines. Many of these physicians and health care professionals are located at a limited number of accredited centers in the United States focused on the treatment of CF. In international markets, we have a small sales force to promote KALYDECO and will need to increase the size of this sales force moderately as we continue to expand geographically.

We market our products through personal interactions with individual physicians, advertising, sending direct mail, public relations activities and other activities. 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. We also have established programs in the United States that provide our products to qualified uninsured or underinsured patients at no charge or at a reduced charge, based on specific eligibility criteria.

COLLABORATIONS

We have entered into collaborations with pharmaceutical and other companies and organizations that provide us financial and other resources, including capabilities in research, development, manufacturing and sales and marketing, and licenses to intellectual property. These collaborations have provided us with drug candidates and/or important financial and non-financial resources that have contributed to our products and a number of the drug candidates in our current development pipeline. We may seek to license or acquire drugs, drug candidates and other technologies that have the potential to add to our pipeline or to provide us with new commercial opportunities. In particular, we are focusing on drug candidates for the treatment of patients with CF and other third-party drug candidates that could be developed for specialty markets. Furthermore, we may seek collaborators to support, develop and/or commercialize some of our current drug candidates and/or additional drug candidates that may emerge from our research activities.

Cystic Fibrosis Foundation Therapeutics Incorporated

We began working with CFFT in 1998. We entered into the current collaboration agreement with CFFT in 2004 and amended it several times to support research and development activities related to potentiator compounds and corrector compounds, including ivacaftor, lumacaftor and VX-661. Pursuant to an April 2011 amendment to the collaboration agreement, CFFT agreed to provide financial support for development activities for VX-661, a corrector compound discovered under the collaboration, and additional research and development activities directed at discovering new corrector compounds. We retain worldwide rights to develop and commercialize ivacaftor, lumacaftor, VX-661 and any other compounds discovered during the course of the research collaboration with CFFT. We are obligated to pay CFFT tiered royalties ranging from single digits to sub-teens, calculated as a percentage of net sales, on ivacaftor, as well as lumacaftor, VX-661 and compounds discovered during the research terms of the agreement with CFFT, the last of which concluded February 2014. We have made the two commercial milestone payments required under the collaboration agreement upon achievement of certain sales levels of KALYDECO. Under the collaboration agreement, we also are obligated to make a total of two one-time commercial milestone payments upon achievement of certain sales levels for certain CFTR corrector compounds.

For each compound commercialized under this collaboration, we will have royalty obligations to CFFT until the expiration of patents covering that compound. We have patents in the United States and European Union covering the composition-of-matter of ivacaftor that expire in 2027 and 2025, respectively, subject to potential patent life extensions. We have patent applications in the United States and European Union covering the composition-of-matter of lumacaftor that expire in 2026, subject to potential patent life extensions. The collaboration also may be terminated by either party for a material breach by the other, subject to notice and cure provisions.

BioAxone Biosciences, Inc.

In October 2014, we entered into a license and collaboration agreement with BioAxone Biosciences, Inc., or BioAxone, a privately-held biotechnology company. Pursuant to this agreement, we are collaborating with BioAxone on the research, development and commercialization of VX-210 (formerly referred to as Cethrin), a biologic controlled by BioAxone, for the treatment of patients with spinal cord injuries. VX-210 is a Rho inhibitor, also described as a Rho antagonist, which we believe has the potential to block inhibitory signaling, which may result in the regrowth and/or regeneration of axons after spinal injury. VX-210 has been evaluated as a single dose application in an open-label, non-placebo controlled Phase 1/2a clinical trial at multiple doses in 48 patients with thoracic and cervical acute spinal cord injuries. We expect to commence a Phase 2b clinical trial of VX-210 in late 2015.

We paid BioAxone initial payments of \$10.0 million and BioAxone has the potential to receive up to \$90.0 million in milestones and fees, including development and regulatory milestone payments and a license continuation fee. In addition, BioAxone would receive royalties and commercial milestones based on future net product sales, if any. We hold an option to purchase BioAxone at a predetermined price. The option expires at the earliest of (a) the day the FDA accepts a Biologics License Application submission for VX-210, (b) the day we elect to continue the license instead of exercising the option to purchase BioAxone and (c) March 15, 2018, subject to our option to extend this date by one year. We may terminate our agreement with BioAxone upon 90 days' notice or immediately if we determine that a licensed product is unsafe for administration to humans. The agreement may also be terminated by either party for a material breach by the other or by BioAxone for our inactivity with respect to VX-210, in each case subject to notice and cure provisions. Unless earlier terminated, the agreement will continue until the expiration of our royalty obligations.

Outlicense Arrangements

We have entered into various agreements pursuant to which we have outlicensed rights to certain drug candidates to third-party collaborators. Pursuant to these outlicense arrangements, our collaborators become responsible for all costs related to the continued development of such drug candidates and obtain development and commercialization rights to these drug candidates. Depending on the terms of the arrangements, our collaborators may be required to make upfront payments, milestone payments upon the achievement of certain product research and development objectives and/or pay royalties on future sales, if any, of commercial products resulting from the collaboration.

Janssen Pharmaceuticals, Inc.

In 2014, we entered into an agreement with Janssen Pharmaceuticals, Inc., or Janssen Inc. Pursuant to this agreement, Janssen Inc. has an exclusive worldwide license to develop and commercialize certain drug candidates for the treatment of influenza, including VX-787. We received non-refundable payments of \$35.0 million from Janssen Inc. in 2014 and have the potential to receive development, regulatory and commercial milestone payments as well as royalties on future product sales, if any. Janssen Inc. is responsible for costs related to the development and commercialization of the compounds. Janssen Inc. may terminate the agreement, subject to certain exceptions, upon six months' notice.

INTELLECTUAL PROPERTY

We actively seek protection for our products and proprietary information by means of U.S. 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 our drugs and drug candidates that have progressed at least into Phase 2 clinical trials. The following table sets forth the status of such primary patents and patent applications in the United States and the European Union covering the composition-of-matter of these drugs and drug candidates:

Drug/Drug Candidate	Status of United States Patent (Anticipated Expiration, Subject to Potential Extensions)	Status of European Union Patent (Anticipated Expiration, Subject to Potential Extensions)
KALYDECO (ivacaftor)	Granted (2027)	Granted (2025)
lumacaftor	Application Pending (2026)	Granted (2026)
VX-661	Granted (2027)	Application Pending (2027)

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 our research and development programs. In addition to the composition-of-matter patents and patent applications listed above, our intellectual property holdings include:

- U.S. and foreign patent applications covering potentiator compounds and corrector compounds for the CFTR protein, including ivacaftor, lumacaftor and VX-661 and many other related compounds, and the use of those potentiators and correctors to treat CF.
- U.S. and foreign patents and patent applications covering VX-803 and VX-970 and the use of VX-803 and VX-970 to treat oncology indications.
- U.S. and foreign patents and patent applications covering VX-210 and the use of VX-210 to treat neurology indications.
- U.S. and foreign patents and patent applications covering the manufacture, pharmaceutical compositions, related solid forms, formulations, dosing regimens and methods of use of these compounds, including ivacaftor and lumacaftor.

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.

Ivacaftor was granted orphan drug status in the United States and the European Union. We have a U.S. patent that covers the composition-of-matter of ivacaftor that we expect will provide intellectual property protection in the United States through its expiration date in 2027. We have a European patent that covers the composition-of-matter of ivacaftor that we expect will provide intellectual property protection in the European Union through its expiration date in 2025, subject to potential extension. We are entitled to orphan drug exclusivity for ivacaftor in the United States and the European Union, which means that the FDA may not approve another application to market ivacaftor for the same indication for a period of seven years following approval, and the EMA cannot accept an MAA for a drug similar to ivacaftor for a period of ten years following approval. As a result of the orphan drug exclusivity, even if a competitor successfully challenges the ivacaftor patents, it could not obtain approval from the FDA to market ivacaftor for the treatment of patients with a G551D mutation in their *CFTR* gene in the United States until 2019, or submit an MAA for the treatment of patients with a G551D mutation in their *CFTR* gene in the European Union until 2022, except in very limited circumstances.

Lumacaftor, and the fixed dose combination of lumacaftor and ivacaftor were granted orphan drug status in the United States and the European Union. We have a European patent that covers the composition of matter of lumacaftor that we expect will provide intellectual property protection in the European Union through its expiration date in 2026, subject to potential extension. We have pending applications in the United States covering the composition-of-matter of lumacaftor.

VX-661 was granted orphan drug status in the United States and the European Union. We have a United States patent that covers the composition of matter of VX-661 that we expect will provide intellectual property protection in the United States through its expiration date in 2027, subject to potential extension. We have pending applications in the European Union covering the composition-of-matter of VX-661.

MANUFACTURING

Manufacturing Approach and Philosophy

As we market and sell our approved products and advance our 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 products for commercial sale and post-approval clinical trials and to manufacture and distribute our drug candidates for clinical trials. Wherever possible, we seek to establish multiple suppliers for each raw material and step in the manufacturing process, however we rely on a sole source supplier of one component of our products and drug candidates.

We expect that we will continue for the foreseeable future to rely on third parties to meet most of our commercial supply needs and some of our clinical supply needs. We are in the process of establishing our own small-scale manufacturing capabilities, which we plan to use for clinical trial supplies and as an additional source for commercial supplies.

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 convert these raw materials into drug substance, and convert the drug substance into final dosage form. Establishing and managing this global supply chain for each of our drugs and drug candidates requires a significant financial commitment and the creation and maintenance of numerous third-party contractual relationships.

We have developed systems and processes to track, monitor and oversee our third-party manufacturers' activities, including a quality assurance program intended to ensure that our third-party manufacturers comply with current Good Manufacturing Practices, or cGMP. 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 other U.S. and foreign government authorities.

Manufacture of KALYDECO (ivacaftor)

We obtain ivacaftor to meet our commercial and clinical supply needs through a third-party manufacturing network. A disruption in the commercial supply of KALYDECO would have a significant effect on patients, our business and our product revenues. A disruption in the clinical supply of ivacaftor could delay the completion of clinical trials and/or affect timelines

for submitting regulatory filings. Our supply chain includes a sole-source manufacturer that has the capability of providing its services to us from multiple sites.

Manufacture of Co-formulated Lumacaftor/Ivacaftor

We have developed several manufacturing processes to produce commercial quantities of co-formulated lumacaftor/ivacaftor, including a process utilizing continuous manufacturing technology as well as a traditional batch manufacturing process. We have established manufacturing capabilities at our third-party manufacturer in the United Kingdom, which was used to produce a portion of the clinical trial supplies for our Phase 3 clinical trials of lumacaftor in combination with ivacaftor, and are in the process of establishing continuous manufacturing capabilities and seeking validation for these capabilities at our facility located in Boston, Massachusetts. The goal of continuous process manufacturing is to reduce material waste and cycle times and improve yield, which may result in reduced cost, reduced development and production timelines, lower inventories and increased market response flexibility. While continuous process manufacturing has been used in many industries, we believe that we are the first company to seek approval for an NDA using a continuous manufacturing process. A third-party manufacturer also is producing commercial quantities of co-formulated lumacaftor/ivacaftor using the traditional batch manufacturing process we designed.

Manufacture of VX-661/Ivacaftor

We expect to use a traditional batch manufacturing process to obtain a supply of VX-661 to be used in our Phase 3 clinical trials of VX-661 in combination with ivacaftor. If we successfully commercialize VX-661 in combination with ivacaftor, we plan to produce our commercial supply of VX-661 using a continuous manufacturing process.

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 and biotechnology companies, engaged in developing products for the indications our drugs are approved to treat and the therapeutic areas we are targeting with our research and development activities. Potential competitors also include academic institutions, government agencies, other public and private research organizations and charitable venture philanthropy organizations that conduct research, seek patent protection and/or establish collaborative arrangements for research, development, manufacturing and commercialization. Many of our competitors have substantially greater financial, technical and human resources than we do. We face competition based on the safety and efficacy of our products and 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 and maintain market acceptance and our ability to generate meaningful revenues from our products. Future competitive products may render our products, or future products, obsolete or noncompetitive.

Cystic Fibrosis

An increasing number of companies are seeking to identify and develop drug candidates for the treatment of CF, including publicly-traded companies such as Novartis, Pfizer, ProQR Therapeutics B.V., and Genzyme, which is a division of Sanofi, and several private companies. Although we are the first company to successfully develop a drug that treats the underlying cause of CF, KALYDECO is approved to treat only a small percentage of patients with CF. Our competitors have research and development programs directed at identifying and developing CFTR potentiators, CFTR correctors and drug candidates with other mechanisms of action that seek to address the underlying cause of CF, and our success in rapidly developing and commercializing KALYDECO (ivacaftor) and developing and potentially commercializing lumacaftor in combination with ivacaftor may increase the resources that our competitors allocate to the development of these potential treatments for CF. If one or more competing therapies are successfully developed as a treatment for patients with CF, our revenues from KALYDECO, lumacaftor in combination with ivacaftor, and/or our other CF drug candidates, if then approved, could face significant competitive pressure.

GOVERNMENT REGULATION

The research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, safety monitoring, record keeping, promotion, advertising, distribution and marketing of our products and drug candidates are subject to extensive regulation by United States and foreign governmental authorities.

United States Government Regulation

New Drug Application Approval Processes

In the United States, the FDA regulates drugs under the Federal Food, Drug and Cosmetic Act, or the FDCA, and implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the drug development process, approval process or after approval, may subject us to administrative or judicial sanctions, any of which could have a material adverse effect on us. These sanctions could include:

- refusal to approve or delay in review of pending applications;
- withdrawal of an approval or the implementation of limitations on a previously approved indication for use;
- imposition of a clinical hold, a risk mitigation and evaluation strategy or other safety-related limitations;
- warning letters or “untitled letters”;
- product seizures;
- total or partial suspension of production or distribution; or
- injunctions, fines, disgorgement, or civil or criminal penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies conducted according to Good Laboratory Practices, or GLP, and other applicable regulations;
- submission to the FDA of an investigational new drug, or IND, application, which must become effective before clinical trials in the United States may begin;
- performance of adequate and well-controlled clinical trials according to Good Clinical Practices, or GCP, to establish the safety and efficacy of the proposed drug for its intended use;
- submission to the FDA of an NDA;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product will be produced to assess compliance with cGMP to assure that the facilities, methods and controls are adequate to preserve the product’s identity, strength, quality and purity; and
- FDA review and approval of the NDA.

Once a drug candidate is identified for development, it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal pharmacology and toxicology studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information and analytical data, to the FDA as part of the IND. Preclinical or nonclinical testing typically continues even after the IND is submitted. In addition to including the results of the preclinical studies, the IND also will include a protocol detailing, among other things, the objectives of the initial clinical trial and the parameters to be used in monitoring safety. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, places the IND on clinical hold. If an IND is placed on clinical hold, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin. A clinical hold may occur at any time during the life of an IND, and may affect one or more specific clinical trials or all clinical trials conducted under the IND.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with GCP. They must be conducted under protocols detailing the objectives of the trial, dosing procedures, subject selection and exclusion criteria and the safety and effectiveness criteria to be evaluated. Each protocol and any amendments must be submitted to the FDA as part of the IND, and progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently in other situations, including the occurrence of serious adverse events. An institutional review board, or IRB, at each institution participating in the clinical trial must review and approve the protocol and any amendments before a clinical trial commences or continues at that institution, approve the information regarding the clinical trial and the consent form that must be provided to each trial subject or his or her legal representative, and monitor the clinical trial until completed and otherwise comply with IRB regulations.

Clinical trials typically are conducted in three sequential phases that may overlap or be combined:

- *Phase 1.* The drug initially is introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and elimination. In the case of some drug candidates for severe or life-threatening diseases, such as cancer, especially when the drug candidate may be inherently too toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.
- *Phase 2.* Clinical trials are initiated in a limited patient population intended to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the drug candidate for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- *Phase 3.* Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk-benefit ratio of the drug candidate and provide an adequate basis for regulatory approval and product labeling.

Phase 1, Phase 2 and Phase 3 testing may not be completed successfully within any specified period, if at all. The FDA or the sponsor may suspend a clinical trial at any time for a variety of reasons, including a finding that the healthy volunteers or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug candidate has been associated with unexpected serious harm to healthy volunteers or patients.

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	Estimated Duration
Discovery	2 to 4 years
Preclinical	1 to 2 years
Phase 1	1 to 2 years
Phase 2	2 to 4 years
Phase 3	2 to 4 years
FDA approval	6 months to 2 years

During the development of a new drug, sponsors are given opportunities to meet with the FDA at certain points. These points may be prior to submission of an IND, at the end of Phase 2 testing, and before an NDA is submitted. Meetings at other times may be requested. These meetings can provide an opportunity for the sponsor to share information about the data gathered to date, for the FDA to provide advice, and for the sponsor and FDA to reach agreement on the next phase of development. Sponsors typically use the end of Phase 2 meeting to discuss their Phase 2 clinical results and present their plans for the pivotal Phase 3 clinical trial that they believe will support approval of the drug candidate.

As part of the development process, companies usually complete animal safety studies and also must develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate, and the manufacturer must develop methods for testing the quality, purity and potency of the final products. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf-life.

The results of drug development, preclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug candidate, proposed labeling and other relevant information are submitted to the FDA as part of an NDA requesting approval to market the drug candidate. The FDA reviews each NDA submitted to ensure that it is sufficiently complete for substantive review before it accepts it for filing. It may request additional information rather than accept an NDA for filing.

Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA may not approve an NDA if the applicable regulatory criteria are not satisfied or may require additional clinical or other data. Even if such data are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. The FDA reviews an NDA to determine, among other things, whether a drug candidate is safe and effective for its intended use and whether its manufacturing is cGMP-compliant to assure and preserve the drug candidate's identity, strength, quality and purity. The FDA may refer the NDA to an advisory committee for review and recommendation as to whether the NDA should be approved and under what conditions. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. Before approving an NDA, the FDA will inspect the facility or facilities where the drug candidate is manufactured and tested.

The FDA may require, as a condition of approval, restricted distribution and use, enhanced labeling, special packaging or labeling, expedited reporting of certain adverse events, pre-approval of promotional materials, restrictions on direct-to-consumer advertising or commitments to conduct additional research post-approval. The FDA will issue a complete response letter if the agency decides not to approve the NDA in its present form. The complete response letter usually describes all of the specific deficiencies in the NDA identified by the FDA. If a complete response letter is issued, the applicant may either resubmit the NDA, addressing all of the deficiencies identified in the letter, or withdraw the application.

Expedited Review and Approval

The FDA has various programs, including Fast Track, priority review, and accelerated approval, that are intended to expedite or simplify the process for reviewing drug candidates, and/or provide for approval on the basis of surrogate endpoints. Even if a drug candidate qualifies for one or more of these programs, the FDA may later decide that the drug candidate no longer meets the conditions for qualification or that the time period for FDA review or approval will not be shortened. Generally, drug candidates that may be eligible for these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs, and those that offer meaningful benefits over existing treatments. For example, Fast Track is a process designed to facilitate the development, and expedite the review of drug candidates to treat serious diseases and fill an unmet medical need. Priority review is designed to give drug candidates that offer major advances in treatment or provide a treatment where no adequate therapy exists an initial review within six months as compared to a standard review time of ten months. Although Fast Track and priority review do not affect the standards for approval, the FDA will attempt to facilitate early and frequent meetings with a sponsor of a Fast Track designated drug candidate and expedite review of the application for a drug candidate designated for priority review. Accelerated approval provides an earlier approval of drugs that treat serious diseases, and that fill an unmet medical need based on a surrogate endpoint, which is a laboratory measurement or physical sign used as an indirect or substitute measurement representing a clinically meaningful outcome. As a condition of approval, the FDA may require that a sponsor of a product receiving accelerated approval perform post-marketing clinical trials.

In July 2012, the Food and Drug Administration Safety and Innovation Act, or FDASIA, was enacted, amending the FDCA. As part of FDASIA, Congress created a drug designation called "Breakthrough Therapy." This designation is intended to facilitate expedited development and review of a compound which, alone or in combination with one or more other compounds, is intended to treat a serious or life-threatening disease or condition and for which preliminary clinical evidence indicates that the compound may demonstrate substantial clinical improvement over existing therapies. Breakthrough Therapy designation may be requested at the filing of, or as an amendment to, an IND based on criteria established by the FDA.

Actions identified in FDASIA that may expedite the development and review of a Breakthrough Therapy include, as appropriate: holding meetings with the sponsor and the review team throughout the development of the drug; involving senior managers and experienced review staff, as appropriate, in a collaborative, cross-disciplinary review; and assigning a cross-disciplinary project lead for the FDA review team to facilitate efficient review of the development program and serve as a scientific liaison between the review team and the sponsor. We expect that over time the FDA will develop regulations and/or provide additional guidance regarding the development of drug candidates that receive Breakthrough Therapy designation.

Post-approval Requirements

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product may result in restrictions on the product or complete withdrawal of the product from the market. In addition, under the FDCA the sponsor of an approved drug in the United States may not promote that drug for unapproved, or off-label, uses, although a physician may prescribe a drug for an off-label use in accordance with the practice of medicine. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further FDA review and approval. In addition, the FDA may require testing and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs.

Products manufactured or distributed by us pursuant to FDA approvals are subject to continuing regulation by the FDA, including, among other things:

- record-keeping requirements;
- reporting of adverse experiences with the product;
- providing the FDA with updated safety and efficacy information;
- drug sampling and distribution requirements;
- notifying the FDA and gaining its approval of specified manufacturing or labeling changes;
- complying with certain electronic records and signature requirements; and
- complying with FDA promotion and advertising requirements.

Drug manufacturers and other entities involved in the manufacture and distribution of approved products are required to register with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and some state agencies for compliance with cGMP and other laws.

We rely, and expect to continue to rely, on third parties for the production of our products. Future FDA and state inspections may identify compliance issues at the facilities of our contract manufacturers that may disrupt manufacture or distribution of our products, or require substantial resources to correct.

From time to time, new legislation is enacted that changes the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. In addition, FDA regulations and guidance often are revised or reinterpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether legislative changes will be enacted, or FDA regulations, guidance or interpretations changed.

Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of the use of our drugs, some of our United States patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND, and the submission date of an NDA, plus the time between the submission date of an NDA and the approval of that application. Only one patent applicable to an approved product is eligible for the extension and the extension must be applied for prior to expiration of the patent. The United States Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may apply for restorations of patent term for some of our currently owned or licensed patents to add patent life beyond their current expiration date, depending on the expected length of clinical trials and other factors involved in the submission of the relevant NDA.

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to

gain approval of an NDA for a new chemical entity. For a new chemical entity that qualifies for Orphan Drug designation, the FDCA provides such marketing exclusivity for a period of seven years. A product is a new chemical entity if the FDA has not previously approved any other new product containing the same active moiety, which is the molecule responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application, or ANDA, or a 505(b)(2) NDA submitted by another company for another version of such product where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, for new indications, dosages, or strengths of an existing drug. This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent.

Pediatric Exclusivity

Section 505A of the FDCA, as amended by the FDA Amendments Act of 2007, permits certain drugs to obtain an additional six months of exclusivity, if the sponsor submits information requested in writing by the FDA, or a written request, relating to the use of the drug in children. The FDA may not issue a written request for clinical trials on unapproved or approved indications or where it determines that information relating to the use of a drug in a pediatric population, or part of the pediatric population, may not produce health benefits in that population.

Foreign Regulation

In addition to regulations in the United States, we are subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a drug candidate, we must obtain approval by the comparable regulatory authorities of foreign countries or economic areas, such as the European Union, before we can commence clinical trials or market products in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from place to place, and the time may be longer or shorter than that required for FDA approval.

Under European Union regulatory systems, a company may submit marketing authorization applications either under a centralized or decentralized procedure. The centralized procedure, which is compulsory for medicines produced by biotechnology or those medicines intended to treat AIDS, cancer, neurodegenerative disorders, or diabetes and optional for those medicines that are highly innovative, provides for the grant of a single marketing authorization that is valid for all European Union member states. The decentralized procedure provides for approval by one or more “concerned” member states based on an assessment of an application performed by one member state, known as the “reference” member state. Under the decentralized approval procedure, an applicant submits an application, or dossier, and related materials 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 or not to approve the assessment report and related materials. If a member state does not recognize the marketing authorization, the disputed points are eventually referred to the European Commission, whose decision is binding on all member states.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drug candidates intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 people in the United States, or more than 200,000 people in the United States and for which there is no reasonable expectation that the cost of developing and making available in the United States a drug for this type of disease or condition will be recovered from sales in the United States for that drug. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process. KALYDECO and lumacaftor have been granted designation as orphan drugs by the FDA.

If a drug candidate that has orphan drug designation subsequently receives the first FDA approval for that drug for the disease for which it has such designation, the product is entitled to orphan drug exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication, except in very limited circumstances, for

seven years. Orphan drug exclusivity, however, also could block the approval of our drug candidates for seven years if a competitor first obtains approval of the same product as defined by the FDA or if our drug candidate is determined to be contained within the competitor's product for the same indication or disease.

As in the United States, we may apply for designation of a drug candidate as an orphan drug for the treatment of a specific indication in the European Union before the application for marketing authorization is made. Orphan drugs in Europe enjoy economic and marketing benefits, including up to 10 years of market exclusivity for the approved indication unless another applicant can show that its product is safer, more effective or otherwise clinically superior to the orphan-designated product.

The FDA and foreign regulators expect holders of exclusivity for orphan drugs, such as KALYDECO, to ensure 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.

Reimbursement

Sales of our products depend, to a large degree, on the extent to which our products will be covered by third-party payors, such as government health programs, commercial insurance and managed health care organizations. These third-party payors increasingly are reducing reimbursements for medical products and services. Additionally, the containment of health care costs has become a priority of federal and state governments, and the prices of drugs have been a focus in this effort. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could limit our revenues. Decreases in third-party reimbursement for a product or a decision by a third-party payor to not cover a product could reduce physician usage of the product.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, established the Medicare Part D program to provide a voluntary prescription drug benefit to Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities, which will provide coverage of outpatient prescription drugs. Unlike Medicare Part A and B, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for products for which we receive marketing approval. However, any negotiated prices for our products covered by a Part D prescription drug plan likely will be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

The American Recovery and Reinvestment Act of 2009 provides funding for the federal government to compare the effectiveness of different treatments for the same illness. A plan for the research will be developed by the Department of Health and Human Services, or HHS, the Agency for Healthcare Research and Quality and the National Institutes of Health, and periodic reports on the status of the research and related expenditures will be made to the U.S. Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payors, it is not clear what effect, if any, the research will have on the sales of our products. It is possible that comparative effectiveness research demonstrating benefits of a competitor's product could adversely affect the sales of our products. If third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act of 2010, which is referred to as the ACA, was enacted in March 2010 and is designed to expand coverage for the uninsured while at the same time containing overall health care costs. With regard to pharmaceutical products, among other things, the ACA is designed to expand and increase industry rebates for drugs covered under Medicaid programs, impose an annual fee on branded pharmaceutical manufacturers and make changes to the coverage requirements under the

Medicare Part D program. Our rebates associated with the Medicare Part D “donut hole” have not been significant. In 2014, 2013 and 2012, we recorded \$10.7 million, \$10.4 million and \$1.8 million, respectively, in sales, general and administrative expenses related to the branded prescription drug fee established pursuant to the ACA. We were not subject to this fee prior to 2012. The branded prescription drug fee is not tax deductible. We cannot predict all of the effects of the ACA on pharmaceutical companies as many of the ACA reforms require the promulgation of detailed regulations implementing the statutory provisions, which has not yet occurred.

In Europe and many other foreign countries, the success of KALYDECO and of lumacaftor in combination with ivacaftor, if approved, and of any other drug candidates we may develop, depends largely on obtaining and maintaining government reimbursement, because in many foreign countries patients are unable to access prescription pharmaceutical products that are not reimbursed by their governments. Negotiating reimbursement rates in foreign countries can delay the commercialization of a pharmaceutical product and generally results in a reimbursement rate that is lower than the net price that companies can obtain for the same product in the United States.

In some countries, such as Germany and France, commercial sales of a new product can begin while the reimbursement rate that a company will receive in future periods is under discussion. In other countries, a company must complete the reimbursement discussions prior to the commencement of commercial sales of the pharmaceutical product. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of drugs for which their national health insurance systems provide reimbursement and to control the prices of drugs for human use. A member state may approve a specific price for the drug or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the drug on the market. Recently, many countries in the European Union have increased the amount of discounts required on pharmaceuticals and these efforts could continue as countries attempt to manage healthcare expenditures, especially in light of the severe fiscal and debt crises experienced by many countries in the European Union. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products.

Other United States 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, and the reporting of payments to physicians and teaching hospitals.

Anti-kickback Laws

U.S. federal laws prohibit fraud and abuse involving state and federal health care programs, such as Medicare and Medicaid. These laws are interpreted broadly and enforced aggressively by various state and federal agencies, including the Centers for Medicare & Medicaid Services, or CMS, the Department of Justice, the Office of Inspector General for HHS and various state agencies. These anti-kickback laws prohibit, among other things, knowingly and willfully offering, paying, soliciting, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing, arranging for or recommending of an item or service that is reimbursable, in whole or in part, by a federal health care program. Remuneration is broadly defined to include anything of value, such as, cash payments, gifts or gift certificates, discounts, or the furnishing of services, supplies or equipment. The anti-kickback laws are broad and prohibit many arrangements and practices that are lawful in businesses outside of the health care industry.

The penalties for violating the anti-kickback laws can be severe. The sanctions include criminal and civil penalties, and possible exclusion from the federal health care programs. Many states have adopted laws similar to the federal anti-kickback laws, and some apply to items and services reimbursable by any payor, including third-party payors.

State and Federal Prohibitions on False Claims

The federal False Claims Act imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment to the federal government. Under the False Claims Act, a person acts knowingly if he has actual knowledge of the information or acts in deliberate ignorance or in reckless disregard of the truth or falsity of the information. Specific intent to defraud is not required. Provisions of the False Claims Act allow a private individual to bring an action on behalf of the federal government and to share in any amounts paid by the defendant to the government in connection with the action. The number of filings under these provisions has increased significantly in recent years. When an entity is determined to have violated the False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties for each false claim. Conduct that violates the False Claims Act may also lead to exclusion from the federal health care programs. Given the number of claims likely to be at issue, potential damages under the False Claims Act for even a single inappropriate arrangement could be significant. In addition, various states have enacted similar laws modeled after the False Claims Act that apply to items and services reimbursed under Medicaid and other state health care programs, and, in several states, such laws apply to claims submitted to all payors.

Federal Prohibitions on Health Care Fraud and False Statements Related to Health Care Matters

Under the administrative simplification provisions of the Health Insurance Portability and Accountability Act of 1996, or HIPAA, and state laws there are numerous regulations for protecting the privacy and security of protected health information. Additional administrative simplification provisions created the following federal crimes: health care fraud, false statements relating to health care matters, theft or embezzlement in connection with a health benefit program and obstruction of criminal investigation of health care offenses. The health care fraud statute prohibits knowingly and willfully executing a scheme to defraud any health care benefit program, including a private insurer. The false statements statute prohibits knowingly and willfully falsifying, concealing, or covering up a material fact or making any materially false, fictitious, or fraudulent statement in connection with the delivery of or payment for health care benefits, items, or services. The theft or embezzlement statute prohibits knowingly and willfully embezzling, stealing or otherwise converting or misapplying the money or property of a health care benefit program. The obstruction of criminal investigations of health care offenses statute prohibits willfully preventing, obstructing, misleading or delaying the communication of information and records relating to a violation of a federal health care offense to a criminal investigator. A violation of any of these laws is a felony and may result in fines, or exclusion from the federal health care programs.

Physician Payment Sunshine Act

The Physician Payment Sunshine Act will require pharmaceutical manufacturers to report annually to the Secretary of HHS payments or other transfers of value made by that entity to physicians and teaching hospitals. In February 2013, regulations were released that contain detailed guidance regarding the information that must be collected and reported. We were required to collect information regarding such payments starting in August 2013 and will be required to begin reporting such information in March 2014. Over the next several years, we will need to continue to dedicate significant resources to enhance our systems and processes in order to comply with these regulations. Failure to comply with the reporting requirements would result in significant civil monetary penalties. Similar laws have been enacted or are under consideration in foreign jurisdictions, including France which has adopted the *Loi Bertrand*, or French Sunshine Act, which became effective in 2013.

The Foreign Corrupt Practices Act

The Foreign Corrupt Practices Act prohibits U.S. companies and their representatives from offering, promising, authorizing or making payments to foreign officials for the purpose of obtaining or retaining business abroad. In many countries, the health care professionals we regularly interact with may meet the definition of a foreign government official for purposes of the Foreign Corrupt Practices Act.

Other Regulations

In addition to the statutes and regulations described above, we also are subject to regulation in the United States 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, 2014, we had approximately 1,830 employees, which was approximately the same number of employees that we had on December 31, 2013. Of these employees, approximately 1,540 were based in the United States, approximately 220 were based in Europe and approximately 70 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. 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, except for a small number of employees in France and Spain. Science magazine named Vertex as one of its top employers in the life sciences in each of the last five years. We consider our relations with our employees to be good.

OTHER MATTERS

Financial Information and Significant Customers

Financial information about (i) our net product revenues and other revenues generated in the principal geographic regions in which we operate and our significant customers is set forth in Note T, "Segment Information," to our consolidated financial statements included in this Annual Report on Form 10-K, (ii) net income (loss) per share attributable to Vertex common shareholders and our total assets are provided in our consolidated financial statements included in this Annual Report on Form 10-K and (iii) our research and development expenses in each of the last three fiscal years and our deconsolidation of Alios as of December 31, 2014 is provided in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations." A discussion of the risks attendant to our international operations is set forth in the "Risk Factors" section of this Annual Report on Form 10-K.

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 and current reports on Form 8-K, and all amendments to those reports, are available to you free of charge through the "Investors-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 50 Northern Avenue Boston, Massachusetts 02210.

DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

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

Name	Age	Position
Jeffrey M. Leiden, M.D., Ph.D.	59	Chairman of the Board, Chief Executive Officer and President
David Altshuler, M.D., Ph.D.	50	Executive Vice President, Global Research and Chief Scientific Officer
Stuart A. Arbuckle	49	Executive Vice President and Chief Commercial Officer
Jeffrey A. Chodakewitz, M.D.	59	Executive Vice President, Global Medicines Development and Medical Affairs, and Chief Medical Officer
Amit K. Sachdev, J.D.	47	Executive Vice President, Global Government Strategy, Market Access and Value
Ian F. Smith	49	Executive Vice President and Chief Financial Officer
Paul M. Silva	48	Senior Vice President and Corporate Controller
Joshua S. Boger, Ph.D.	63	Director
Terrence C. Kearney	60	Director
Yuchun Lee	49	Director
Margaret G. McGlynn	55	Director
Wayne J. Riley, M.D.	55	Director
Bruce I. Sachs	55	Director
Elaine S. Ullian	67	Director
William Young	70	Director

Dr. Leiden is our Chairman, Chief Executive Officer and President. He has held the positions of Chief Executive Officer and President since February 2012 after joining us as CEO Designee in December 2011. He has been a member of our Board of Directors since July 2009, the Chairman of our Board of Directors since May 2012, and served as our lead independent director from October 2010 through December 2011. Dr. Leiden was a Managing Director at Clarus Ventures, a life sciences venture capital firm, from 2006 through January 2012. 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 a senior advisor to Clarus Ventures. Dr. Leiden has served as a director of Quest Diagnostics Inc., a medical diagnostics company, since December 2014. Dr. Leiden was a director and the non-executive Vice Chairman of the board of Shire plc, a specialty biopharmaceutical company, from 2006 to January 2012, and was also a member of the Board of Directors of Millennium Pharmaceuticals, Inc. from October 2007 until it was acquired in June 2008. Dr. Leiden received his M.D., Ph.D. and B.A. degrees from the University of Chicago.

Dr. Altshuler has been our Executive Vice President, Global Research and Chief Scientific Officer since January 2015 and was a member of our Board of Directors from May 2012 through December 2014. Dr. Altshuler was one of four founding members of the Broad Institute, a research collaboration of Harvard, MIT, The Whitehead Institute and the Harvard Hospitals. He served as the Director of the Institute's Program in Medical and Population Genetics from 2003 through December 2014 and as the Institute's Deputy Director and Chief Academic Officer from 2009 through December 2014. Dr. Altshuler joined the faculty at Harvard Medical School and the Massachusetts General Hospital in 2000 and held the academic rank of Professor of Genetics and Medicine from 2008 through December 2014. He served as Adjunct Professor of Biology at MIT from 2012 through December 2014. Dr. Altshuler earned a B.S. from MIT, a Ph.D. from Harvard University and an M.D. from Harvard Medical School. Dr. Altshuler completed his clinical training in Internal Medicine, and in Endocrinology, Diabetes and Metabolism, at the Massachusetts General Hospital.

Mr. Arbuckle is our Executive Vice President and Chief Commercial Officer, a position he has held since September 2012. Prior to joining us, Mr. Arbuckle held multiple commercial leadership roles at Amgen, Inc., a 17,000 person biotechnology company, from July 2004 through August 2012. Mr. Arbuckle has worked in the biopharmaceuticals industry

since 1986, including more than 15 years at GlaxoSmithKline plc, where he held sales and marketing roles of increasing responsibility for medicines aimed at treating respiratory, metabolic, musculoskeletal, cardiovascular and other diseases. He currently is a member of the Board of Directors of the Cancer Support Community, an international non-profit organization dedicated to providing support, education and hope to people affected by cancer. Mr. Arbuckle holds a BSc in pharmacology and physiology from the University of Leeds.

Dr. Chodakewitz is our Executive Vice President, Global Medicines Development and Medical Affairs and Chief Medical Officer. Dr. Chodakewitz joined Vertex as a Senior Vice President in January 2014 and became an Executive Vice President in October 2014. Prior to joining us, Dr. Chodakewitz spent more than 20 years at Merck & Co., Inc., where he held a variety of roles including Vice President of Clinical Research – Infectious Diseases & Vaccines, Vice President of Clinical Pharmacology/Early Stage Development, Senior Vice President of Late Stage Development, and Senior Vice President of Global Scientific Strategy (Infectious Diseases, Respiratory/Immunology). Prior to his tenure at Merck, he served as the Director of the HIV Outpatient Clinic at the Veterans Administration Medical Center in West Haven, Connecticut and held various academic positions at Yale University and New York University Schools of Medicine. Dr. Chodakewitz serves as a member of the Board of Directors of Tetrphase Pharmaceuticals, Inc., a pharmaceutical company. Dr. Chodakewitz holds B.S. in Biochemistry from Yale University, and an M.D. from the Yale University School of Medicine.

Mr. Sachdev is our Executive Vice President, Policy, Access and Value, a role he assumed in October 2014. In this role, Mr. Sachdev manages our global market access, health economics and outcomes research efforts for our drugs and drug candidates. In 2007, he joined us as a Senior Vice President, and has led our government affairs and public policy activities, as well as our patient advocacy programs. From 2010 through 2013 he established our first international commercial operations in Canada. Prior to joining us, Mr. Sachdev served as Executive Vice President, Health of the Biotechnology Industry Organization (BIO) and was the Deputy Commissioner for Policy at the FDA where he also served in several other senior positions within the FDA. Prior to the FDA, Mr. Sachdev served as Majority Counsel to the Committee on Energy and Commerce in the United States House of Representatives and practiced law at the Chemical Manufacturers Association, and subsequently at the law firm of Ropes & Gray LLP. Mr. Sachdev holds a B.S. from Carnegie Mellon University, and a J.D. from Emory University School of Law.

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., a drug development company, and Infinity Pharmaceuticals, Inc., a drug development company. 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.

Mr. Silva is our Senior Vice President and Corporate Controller, a position he has held since April 2011. Mr. Silva joined us in August 2007 as Senior Director, Accounting Operations and was our Vice President and Corporate Controller from September 2008 through April 2011. 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. 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.

Mr. Kearney has been a member of our Board of Directors since May 2011. Mr. Kearney served as the Chief Operating Officer of Hospira, Inc., a specialty pharmaceutical and medication delivery company, from April 2006 to January 2011. From April 2004 to April 2006, he served as Hospira's Senior Vice President, Finance, and Chief Financial Officer, and he

served as Acting Chief Financial Officer through August 2006. Mr. Kearney served as Vice President and Treasurer of Abbott Laboratories from 2001 to April 2004. From 1996 to 2001, Mr. Kearney was Divisional Vice President and Controller for Abbott's International Division. Mr. Kearney serves as a member of the Board of Directors at Acceleron Pharma Inc., a biopharmaceutical company, and Theravance, Inc., a royalty management company. He received his B.S. in biology from the University of Illinois and his M.B.A. from the University of Denver.

Mr. Lee has been a member of our Board of Directors since September 2012. Mr. Lee has served as an Executive in Residence (XIR) and Partner of General Catalyst Partners, a venture capital firm, since April of 2013. Mr. Lee was the Vice President of IBM's Enterprise Marketing Management Group from November 2010 through January 2013. Mr. Lee co-founded Unica Corporation, a provider of software and services used to automate marketing processes, in 1992, and was Unica's President and/or Chief Executive Officer from 1992 through November 2010, when Unica was acquired by IBM. From 1989 to 1992, Mr. Lee was a senior consultant at Digital Equipment Corporation, a supplier of general computing technology and consulting services. Mr. Lee holds a B.S. and an M.S. in electrical engineering and computer science from the Massachusetts Institute of Technology and an M.B.A. from Babson College.

Ms. McGlynn has been a member of our Board of Directors since May 2011. Since July 2011, Ms. McGlynn has served as the President and Chief Executive Officer of the International AIDS Vaccine Initiative, a global not-for-profit organization whose mission is to ensure the development of safe, effective and accessible HIV vaccines for use throughout the world. Ms. McGlynn served as President, Vaccines and Infectious Diseases of Merck & Co., Inc. from 2005 until 2009. Ms. McGlynn joined Merck in 1983 and served in a variety of marketing, sales and managed care roles. Ms. McGlynn serves as a member of the Board of Directors for Air Products and Chemicals, Inc., a company specializing in gases and chemicals for industrial uses, and Amicus Therapeutics, Inc., a biopharmaceutical company. She is also a member of the National Industrial Advisory Committee at the University at Buffalo School of Pharmacy and Pharmaceutical Sciences. Ms. McGlynn holds a B.S. in Pharmacy and an M.B.A. in Marketing from the State University of New York at Buffalo.

Dr. Riley has been a member of our Board of Directors since July 2010. Dr. Riley is Clinical Professor of Medicine, Vanderbilt University School of Medicine and Adjunct Professor of Healthcare Management, Owen Graduate School of Management at Vanderbilt University. From January 2007 until July 2013, Dr. Riley was President and Chief Executive Officer of Meharry Medical College. At Meharry he held the rank of tenured Professor of Internal Medicine and was a Senior Health Policy Associate at the Robert Wood Johnson Center for Health Policy at Meharry. 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. Dr. Riley is a member of the Board of Directors of HCA Holdings, Inc., the parent company of Hospital Corporation of America, a leading operator of hospitals and health facilities, where he serves on the Audit & Compliance Committee and the Nominating and Corporate Governance Committee and is the Chair of the Patient Safety and Quality Committee. Dr. Riley formerly served as a Director of Pinnacle Financial Partners and of the Nashville Branch Board of the Federal Reserve Bank of Atlanta. He is a member of the Institute of Medicine of the National Academy of Sciences. Dr. Riley earned a B.A. from Yale University, an M.P.H. in health systems management from Tulane University School of Public Health & Tropical Medicine, an M.D. from the Morehouse School of Medicine and an M.B.A. from Rice University's Jones Graduate School of Management.

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

Mr. Young is a Venture Partner at Clarus Ventures, a life sciences venture capital firm, which he joined in 2010. Prior to Clarus Ventures, Mr. Young served from 1999 until June 2009 as the Chairman and Chief Executive Officer of Monogram Biosciences, Inc., a biotechnology company acquired by Laboratory Corporation of America in June 2009. From 1980 to 1999, Mr. Young was employed at Genentech, Inc. in positions of increasing responsibility, including as Chief Operating Officer from 1997 to 1999, where he was responsible for all product development, manufacturing and commercial functions. Prior to joining Genentech, Mr. Young was with Eli Lilly & Co. for 14 years. Mr. Young currently serves at the Chairman of the Board of Directors of NanoString Technologies, Inc., and as a member of the Boards of Directors of Theravance BioPharma Inc. and BioMarin Pharmaceutical Inc. Mr. Young retired from Biogen Idec's Board of Directors in June 2014 where he served as a director from 1997 through 2014 and as Biogen's Chairman of the Board from 2010 through 2014. Mr. Young holds a B.S. in Chemical Engineering from Purdue University, an M.B.A. from Indiana University and an Honorary Doctorate in Engineering from Purdue University. Mr. Young was elected to the National Academy of Engineering in 1993 for his contributions to biotechnology.

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

Our business and future net product revenues depend heavily on the success of lumacaftor in combination with ivacaftor, which has not been approved by the FDA or the European Commission. If we are unable to obtain marketing approval for this combination therapy, if we experience material delays in receipt of marketing approval, or if reimbursement levels agreed to by third-party payors are unfavorable or do not meet the expectations of investors or public equity market analysts, our business will be materially harmed and the market price of our common stock would likely decline.

We believe that a significant portion of the value attributed to our company by investors is based on the commercial potential of lumacaftor in combination with ivacaftor. In November 2014, we submitted an NDA in the United States and an MAA in Europe for this potential combination regimen. Obtaining approval of an NDA or an MAA is a lengthy, expensive and uncertain process, and we may not be successful. Obtaining marketing approval for the combination of lumacaftor and ivacaftor in one country or region does not ensure that we will be able to obtain marketing approval in any other country or region.

Obtaining approval to market the combination of lumacaftor and ivacaftor will depend on many factors, including:

- whether or not the FDA and European regulatory authorities determine that the evidence gathered in well-controlled clinical trials, other clinical trials and nonclinical studies demonstrates that lumacaftor in combination with ivacaftor is safe and effective as a treatment for patients with CF 12 years of age and older who have two copies of the F508del mutation in their *CFTR* gene;
- whether or not the FDA and European regulatory authorities are satisfied that the manufacturing facilities, processes and controls for the combination of lumacaftor and ivacaftor 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 and EMA's comments and questions regarding the NDA and MAA for the combination of lumacaftor and ivacaftor, the scheduling and recommendations of any advisory committee meeting to consider the combination of lumacaftor and ivacaftor, the time required to respond to the FDA or EMA's comments and questions and to obtain the final labeling for the combination of lumacaftor and ivacaftor and any other delays that may be associated with the NDA and MAA review process.

Even if lumacaftor in combination with ivacaftor is approved, the FDA or European regulatory authorities, as the case may be, could require extensive warnings on the product labeling or require expensive and time-consuming clinical trials, risk evaluation and mitigation strategies or reporting as conditions of approval. If we experience material delays in obtaining marketing approval for the combination of lumacaftor and ivacaftor in either or both of the United States or Europe, our future net product revenues and cash flows will be adversely effected. If we do not obtain approval to market the combination of lumacaftor and ivacaftor in the United States and Europe, our business will be materially harmed.

Additionally, even if the combination of lumacaftor and ivacaftor receives marketing approval, coverage and reimbursement may not be available and, even if it is available, the level of reimbursement may not be satisfactory. The regulations that govern pricing, coverage and reimbursement for drugs vary widely from country to country. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing approval is granted. Adverse pricing limitations or a delay in obtaining coverage and reimbursement would decrease our future net product revenues and harm our business.

We are incurring losses, and we may not become profitable in future periods.

We have incurred significant operating losses in each of the last three years. In the short-term, our revenues will be dependent on continued sales of KALYDECO and over the longer-term, we expect our revenues will be dependent on both continued sales of KALYDECO and our ability to obtain regulatory approval for, and successfully commercialize, lumacaftor in combination with ivacaftor. Even if we are successful in obtaining marketing approval for lumacaftor in combination with ivacaftor on a timely basis, we currently do not expect to recognize revenue from lumacaftor in combination with ivacaftor until at least mid-2015. Our net losses are having an adverse effect on, among other things, our shareholders' equity, total assets and working capital. Because of the numerous risks and uncertainties associated with pharmaceutical product development, we cannot predict when we will become profitable, if ever.

We are currently substantially dependent on revenues from KALYDECO, and future revenues from KALYDECO are dependent, among other factors, on our ability to increase the number of patients eligible for treatment with ivacaftor.

Until we obtain regulatory approval for lumacaftor in combination with ivacaftor, we expect to be substantially dependent on revenues from KALYDECO. In 2012, we obtained approval to market KALYDECO for the treatment of patients with CF six years of age and older with the G551D mutation in the *CFTR* gene. Since this time, we have sought to expand the number of patients eligible for treatment with KALYDECO. In February 2014, the FDA approved KALYDECO for the treatment of patients with CF six years of age and older who have one of eight other mutations in their *CFTR* gene, which were studied in our first Phase 3 label-expansion clinical trial for ivacaftor. In July 2014, the European Commission approved KALYDECO for this patient group. In December 2014, the FDA approved KALYDECO for the treatment of patients six years of age and older who have the R117H in their *CFTR* gene.

In order to further expand the market for ivacaftor, we need to demonstrate that ivacaftor is safe and effective in additional patient populations. We have completed a Phase 3 clinical trial to evaluate ivacaftor as a treatment for children with CF two to five years of age with specific gating mutations in their *CFTR* gene, including the G551D mutation, and have submitted an NDA to the FDA and an MAA line extension application to the EMA based on this clinical trial. We also have submitted a MAA variation to the EMA for ivacaftor for patients with CF 18 years of age and older with the R117H mutation in their *CFTR* gene.

These clinical trials and our discussions with regulatory authorities are subject to the same risks and uncertainties that are described in these risk factors with respect to the development of our drug candidates. There can be no assurance that the results from our clinical trials of ivacaftor or the data included in our submissions to regulatory authorities will be sufficient to obtain approval for use of ivacaftor in additional indications or that we will be successful in obtaining reimbursement for the use of KALYDECO in additional indications, if approved.

If our competitors bring drugs with superior product profiles to market, our drugs may not be competitive and our revenues could decline.

KALYDECO and any drugs we develop in the future may not be able to compete effectively with marketed drugs or new drugs that may be developed by competitors. 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/or tolerability, and ease of manufacturing, and gain and maintain market acceptance over competing drugs. Many of our competitors, including major pharmaceutical companies such as Abbvie, Bristol-Myers Squibb, Gilead, Johnson & Johnson, Merck, Novartis, Pfizer, Sanofi and Roche, possess substantially greater financial, technical and human resources than we possess. Potential competitors also include other public and private companies, academic institutions, government agencies, other public and private research organizations and charitable venture philanthropy organizations that conduct research, seek patent protection and/or establish collaborative arrangements for research, development, manufacturing and commercialization. As an example, we experienced a rapid decline in the number of patients being treated with INCIVEK in 2013 and 2014 as new medicines for the treatment of HCV infection neared approval and were ultimately approved and became the accepted standard of care. Despite the initial success of INCIVEK, INCIVEK only resulted in significant net product revenues during 2011, 2012 and 2013.

Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies also may prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial

sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

A number of companies are seeking to identify and develop drug candidates for the treatment of CF, including Novartis, Pfizer, Genzyme, which is a division of Sanofi, and ProQR Therapeutics B.V., and several private companies. Our competitors have research and development programs directed at identifying CFTR potentiators, CFTR correctors and drug candidates with other mechanisms of action that seek to address the underlying cause of CF, and our success in rapidly developing and commercializing KALYDECO and developing and potentially commercializing lumacaftor in combination with ivacaftor may increase the resources that our competitors allocate to the development of these potential treatments for CF. If one or more competing therapies are successfully developed as a treatment for patients with CF, our revenues from KALYDECO, lumacaftor in combination with ivacaftor, if approved, and/or other compounds, if then approved, could face competitive pressures.

If we discover safety issues with any of our products or if we fail to comply with continuing U.S. and applicable foreign regulations, commercialization efforts for the product could be negatively affected, the approved product could lose its approval or sales could be suspended, and our business could be materially harmed.

Our products are subject to continuing regulatory oversight, including the review of additional safety information. 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, or were not as prevalent or severe, during pre-approval clinical trials or nonclinical studies. For example, in December 2012, we updated the INCIVEK label in the United States to include a Boxed Warning stating that fatal and non-fatal serious skin reactions have been reported in patients taking INCIVEK combination treatment. The subsequent discovery of previously unknown problems with a product could negatively affect commercial sales of the product, result in restrictions on the product or lead to the withdrawal of the product from the market. The reporting of adverse safety events involving our products or public speculation about such events could cause our stock price to decline or experience periods of volatility.

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 approvals for specific products, product recalls and seizures, operating restrictions and/or criminal prosecutions. In addition, the manufacturers we engage to make our products and the manufacturing facilities in which our products are made are subject to periodic review and inspection by the FDA and foreign regulatory authorities. If problems are identified during the review or inspection of these manufacturers or manufacturing facilities, it could result in our inability to use the facility to make our product or a determination that inventories are not safe for commercial sale.

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

Our drugs may not gain or maintain market acceptance among physicians and patients. Effectively marketing our drugs and any of our drug candidates, if approved, requires 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:

- prevalence and severity of adverse side-effects;
- lack of reimbursement availability from third-party payors;
- lower demonstrated efficacy, safety and/or tolerability compared to other drugs;
- lack of cost-effectiveness;
- a decision to wait for the approval of other therapies in development that have significant perceived advantages over our drug;
- convenience and ease of administration;
- other potential advantages of alternative treatment methods; and
- ineffective sales, marketing and/or distribution support.

If our drugs fail to achieve or maintain market acceptance, we will not be able to generate significant revenues in future periods.

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 reimbursement rates for our products, our revenues will be harmed.

In both domestic and foreign markets, our sales of products depend in part upon the availability of reimbursement from third-party payors. Third-party payors include government health programs such as Medicare and Medicaid in the United States and the national health care systems in many international markets, managed care providers, private health insurers and other organizations. The trend in the U.S. health care industry and elsewhere is cost containment and efforts of third-party payors to contain or reduce health care costs that may adversely affect our ability to establish or maintain appropriate prices for our products or any drugs that we may develop and commercialize. In certain foreign markets, pricing or profitability of therapeutic and other pharmaceutical products is subject to governmental control. Reimbursement agencies in Europe are often more conservative than those in the United States and the reimbursement process is often slower since reimbursement decisions are made on a country-by-country basis. 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 as currently exists in Europe. The ACA requires discounts under the Medicare drug benefit program and increased the rebates paid by pharmaceutical companies on drugs covered by Medicaid. The ACA also imposes an annual fee, which increases annually, on sales by branded pharmaceutical manufacturers.

In addition, third-party payors attempt 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 products. We might need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of our products or any other future products to such payors' satisfaction. Such studies might require us to commit a significant amount of management's time and our financial and other resources. Our products 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 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 already are reimbursed, may be incorporated into existing payments for other products or services and may reflect budgetary constraints and/or imperfections in the data used to calculate these rates. Net prices for products are reduced by mandatory discounts or rebates required by government health care programs and privately-negotiated discounts. While we have implemented policies in an effort to comply with mandated reimbursement rates, the U.S. 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 revenues from our products. Additionally, in the United States and some foreign jurisdictions, there have been a number of legislative and regulatory proposals and initiatives to change the health care system in ways that could affect our ability to sell products. Some of these proposed and implemented reforms have resulted, or could result, in reduced reimbursement rates for our current or future products, which would adversely affect our business, operations and financial results.

Specialty pharmaceuticals are drugs that are prescribed by specialist physicians to treat rare or life-threatening conditions and typically address smaller patient populations. Each of our products is a specialty pharmaceutical product, and our research and development programs are primarily focused on developing additional specialty pharmaceutical products. The increasing availability and use of innovative specialty pharmaceuticals, combined with their relative higher cost as compared to other types of pharmaceutical products, is beginning to generate significant third-party payor interest in developing cost-containment strategies targeted to this sector. Government regulations in both non-U.S. and U.S markets could limit the prices that can be charged for our products and may limit our commercial opportunity. The increasing use of health technology assessments in markets around the world and the financial challenges faced by many governments may lead to significant adverse effects on our business.

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

If we market any of our products in a manner that violates applicable health care laws, including fraud and abuse laws, laws prohibiting off-label promotion, disclosure laws or other similar laws, we may be subject to civil or criminal penalties.

We are subject to health care fraud and abuse laws, such as the federal False Claims Act and the anti-kickback provisions of the federal Social Security Act, laws prohibiting off-label product promotion and other similar laws and regulations both in United States and in non-U.S. markets. While we have a corporate compliance program designed to actively identify, prevent and mitigate risk through the implementation of compliance policies and systems and the promotion of a culture of compliance, if we are found not to be in full compliance with these laws our business could be materially harmed.

The federal anti-kickback law prohibits knowingly and willfully offering, paying, soliciting, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the ordering, furnishing, arranging for or recommending of an item or service that is reimbursable, in whole or in part, by a federal health care program, such as Medicare or Medicaid. The federal statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, patients, purchasers and formulary managers on the other hand, and therefore constrains our marketing practices and our various service arrangements with physicians, including physicians who make clinical decisions to use our products. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution, the exemptions and safe harbors are drawn narrowly and courts generally will apply a “one purpose test” and find a violation of the law if any part of the intent in providing the remuneration was to induce referrals, even if it also was intended to compensate for professional services or other legitimate purposes.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to get a false claim paid. Pharmaceutical companies have been prosecuted under these laws for a variety of alleged promotional and marketing activities, such as providing free product to customers with the expectation that the customers would bill federal programs for the product; reporting to pricing services inflated average wholesale prices that were then used by federal programs to set reimbursement rates; engaging in promotion for uses that the FDA has not approved, known as “off-label” uses, that caused claims to be submitted to Medicaid for non-covered off-label uses; submitting inflated “best price” information to the Medicaid Rebate Program; and certain manufacturing-related violations. The scope of this and other laws may expand in ways that make compliance more difficult and expensive.

Although physicians are permitted, based on their medical judgment, to prescribe products for indications other than those approved by the FDA, manufacturers are prohibited from promoting their products for such off-label uses. We market KALYDECO for patients six years of age and older with CF who have specific mutations in their *CFTR* gene and provide promotional materials and training programs to physicians regarding the use of KALYDECO in these patient populations. If the FDA determines that our promotional materials, training or other activities constitute off-label promotion, it could request that we modify our training or promotional materials or other activities, conduct corrective advertising or subject us to regulatory enforcement actions, including the issuance of a warning letter, injunction, seizure, civil fine and criminal penalties. It also is possible that other federal, state or foreign enforcement authorities might take action if they believe that the alleged improper promotion led to the submission and payment of claims for an off-label use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement. Even if it is later determined we were not in violation of these laws, we may be faced with negative publicity, incur significant expenses defending our actions and have to divert significant management resources from other matters.

Also applicable to some of our practices is HIPAA and its implementing regulations, which created federal criminal laws that prohibit executing a scheme to defraud any health care benefit program or making false statements relating to health care matters and which also imposes certain regulatory and contractual requirements regarding the privacy, security and transmission of individually identifiable health information.

The majority of states also have statutes or regulations similar to the federal anti-kickback law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. In addition, certain states have laws governing the privacy of certain health information, which may differ from each other in significant ways and often are not preempted by HIPAA, complicating compliance efforts. Sanctions under these federal and state laws may include civil monetary penalties from private causes of action, exclusion of a pharmaceutical manufacturer’s products from reimbursement under government programs and criminal fines. Even if we are not determined

to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm our business.

In recent years, several states and localities have enacted legislation requiring pharmaceutical companies to establish marketing compliance programs, file periodic reports with the state or make periodic public disclosures on sales, marketing, pricing, clinical trials, health care provider payments and other activities. Additionally, as part of the ACA, the federal government recently enacted the Physician Payment Sunshine Act provisions. The Physician Payment Sunshine Act provisions require pharmaceutical manufacturers to report annually to the Secretary of HHS payments or other transfers of value made by that entity to physicians and teaching hospitals. We were required to begin reporting certain information with respect to such payments in June 2014. We also now have similar reporting obligations in certain European countries and Medicines Australia and the European Federation of Pharmaceutical Industries and Associations recently adopted codes that will require us to begin reporting such information in Australia in 2015 and throughout the European Union in 2016. We expended significant efforts to establish, and are continuing to devote significant resources to maintain and enhance, systems and processes in order to comply with these regulations. Failure to comply with the reporting requirements would result in significant civil monetary penalties. The ACA also includes various provisions designed to strengthen significantly fraud and abuse enforcement, such as increased funding for enforcement efforts and the lowering of the intent requirement of the federal anti-kickback statute and criminal health care fraud statute such that a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it.

On January 1, 2015, the EMA adopted a new policy on publication of clinical data whereby it will publish clinical reports submitted as part of MAAs for drugs. The policy applies to all clinical reports submitted after January 1, 2015 and the reports will be released as soon as a decision on the application has been made by the EMA. In addition to the general compliance cost associated with the new policy, the ability of third-parties to review the raw data from our clinical trials may increase the risk of patient confidentiality breaches and could result in enhanced scrutiny of our clinical trials results. Such scrutiny could result in misconceptions being spread about our drugs and drug candidates, even if the underlying analysis of such review turns out to be flawed. These publications could also result in the disclosure of information to our competitors that we might otherwise deem confidential, which could harm our competitive position.

If our past or present operations are found to be in violation of any such laws or any other governmental regulations that may apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from federal health care programs and/or the curtailment or restructuring of our operations. The risk of our being found in violation of these laws is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are subject to a variety of interpretations. Any action against us for violation of these laws, even if we successfully defend against them, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

The sales and marketing practices of our industry have been the subject of increased scrutiny from governmental entities in the United States and other countries in which we market our products, and we believe that this trend will continue. We have in place policies to govern how we may retain health care professionals as consultants that reflect the current climate on this issue and are providing training on these policies. Any action against us for violation of these laws, even if we successfully defend against them, also could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

The increasing use of social media platforms presents new risks and challenges.

Social media increasingly is being used by third parties to communicate about our products and drug candidates and the diseases our therapies are designed to treat. We believe that members of the CF community may be more active on social media as compared to other patient populations due to the demographics of this patient population. Social media practices in the pharmaceutical and biotechnology industries are evolving, which creates uncertainty and risk of noncompliance with regulations applicable to our business. For example, patients may use social media platforms to comment on the effectiveness of, or adverse experiences with, a drug or a drug candidate, which could result in reporting obligations. In addition, there is a risk of inappropriate disclosure of sensitive information or negative or inaccurate posts or comments about us on any social networking website. If any of these events were to occur or we otherwise fail to comply with applicable regulations, we could incur liability, face restrictive regulatory actions or incur other harm to our business.

Risks Related to Development, Clinical Testing and Regulation of Our Products and Drug Candidates

Our drug candidates remain subject to clinical testing and regulatory approval. If we are unable to successfully develop additional drug candidates, our business will be materially harmed.

Our business depends upon the successful development and commercialization of drug candidates. These drug candidates are in various stages of development and must satisfy rigorous standards of safety and efficacy before they can be approved for sale by the FDA or comparable foreign regulatory authorities. 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. Discovery and development efforts for new pharmaceutical products, including 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.

We have recently completed and/or have ongoing or planned clinical trials for ivacaftor, ivacaftor in combination with lumacaftor, and ivacaftor in combination with VX-661. The strength of our company's product portfolio and pipeline will depend in large part upon the outcomes of these clinical trials and our ability to develop and commercialize combination treatments for CF that include ivacaftor in combination with (i) lumacaftor or VX-661 and/or (ii) a next-generation CFTR corrector compound. Results of our clinical trials and findings from our nonclinical studies, including toxicology findings in nonclinical studies conducted concurrently with 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. Moreover, clinical data are often susceptible of varying interpretations and analyses, and many companies that have believed their drug candidates performed satisfactorily in clinical trials have nonetheless failed to obtain marketing approval of their drug candidate. 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.

Many companies in the pharmaceutical and biotechnology industries, including our company, have suffered significant setbacks in later-stage clinical trials even after achieving promising results in earlier-stage clinical trials. Accordingly, the results from 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 clinical 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. Interim data from a clinical trial may not be predictive of final results from the clinical trial.

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

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 also may encounter unanticipated delays or increased costs due to government regulation from future legislation or administrative action or changes in governmental policy during the period of drug development, clinical trials and governmental regulatory review.

Any failure to obtain regulatory approvals for a drug candidate would prevent us from commercializing that drug candidate. Any delay in obtaining required regulatory 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. Non-U.S. jurisdictions have different approval

procedures than those required by the FDA, and these jurisdictions may impose additional testing requirements for our drug candidates. 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. In addition, although the FDA may accept data from clinical trials conducted outside the United States, acceptance of this data is subject to conditions imposed by the FDA. For example, the clinical trial must be well designed and conducted and performed by qualified investigators in accordance with ethical principles. The trial population also must adequately represent the U.S. population, and the data must be applicable to the U.S. population and U.S. medical practice in ways that the FDA deems clinically meaningful. In addition, while these clinical trials are subject to the applicable local laws, FDA acceptance of the data will depend on its determination that the trials also complied with all applicable U.S. laws and regulations. If the FDA does not accept the data from any trial that we conduct outside the United States, it would likely result in the need for additional trials, which would be costly and time-consuming and delay or permanently halt our development of the applicable drug candidate.

We have developed multiple manufacturing process for co-formulated lumacaftor/ivacaftor, and any failure to validate our manufacturing process could adversely affect our ability to commercially launch lumacaftor in combination with ivacaftor.

We have developed several manufacturing processes to produce commercial quantities of co-formulated lumacaftor/ivacaftor. In addition to a traditional batch manufacturing process, we have developed a continuous manufacturing process that connects the processes used in traditional batch manufacturing. We have not previously designed, implemented or utilized a continuous manufacturing process to produce commercial quantities of a pharmaceutical product and believe that we are the first company to seek approval for an NDA or an MAA using this method of manufacturing. As a result, it may be more difficult to satisfy regulators that our process is capable of consistently producing commercial quantities of co-formulated lumacaftor/ivacaftor and that our methods for testing the quality, purity and potency of the final products are sufficient. While we believe that we could manufacture sufficient co-formulated lumacaftor/ivacaftor using either of our manufacturing processes, a failure to establish and validate our manufacturing processes for co-formulated lumacaftor/ivacaftor or any disruption in our supply chain could increase costs or adversely affect our ability to commercially launch lumacaftor in combination with ivacaftor in a timely manner.

If clinical trials are prolonged or delayed, our development timelines for the affected development program 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 cannot 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. Among the factors that could delay our development programs are:

- 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 that supplied clinical trial materials or its relevant manufacturing records or a clinical trial site or records of any clinical or preclinical investigation;
- unfavorable scientific results from clinical trials;

- serious and unexpected drug-related side-effects experienced by participants in our clinical trials or by participants in clinical trials being conducted by our competitors to evaluate drug candidates with similar mechanisms of action or structures to drug candidates that we are developing;
- 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 or partial clinical hold on a trial or compound or deeming the clinical trial conduct as problematic.

Our ability to enroll patients in our clinical trials in sufficient numbers and on a timely basis is 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, patients may drop out of our clinical trials or may be lost to follow-up medical evaluation after treatment ends, and this could 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 healthy volunteers or patients participating in such clinical trials are being exposed to unacceptable health risks or for other reasons. For example, in July 2013, the FDA placed a partial clinical hold on VX-135, a drug candidate we were developing for the treatment of patients with hepatitis C virus infection. Any such suspension could materially adversely affect the development of a particular drug candidate and our business.

If our processes and systems are not compliant with regulatory requirements, we could be subject to restrictions on marketing our products or could be delayed in submitting regulatory filings seeking approvals for our drug candidates.

We have a number of regulated processes and systems that are required to obtain and maintain regulatory approval for our drugs and drug candidates. These processes and systems are subject to continual review and periodic inspection by the FDA and other regulatory bodies. In addition, the clinical research organizations and other third parties that we work with in our non-clinical studies and clinical trials and our oversight of such parties are subject to similar reviews 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. 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, which could have a material adverse effect on our business.

Risks Related to Collaborations and other Business Development Activities

Our ability to execute on our long-term strategy depends in part on our ability to acquire rights to additional drugs, drug candidates and other technologies that have the potential to add to our pipeline or provide us with new commercial opportunities.

In order to achieve our long-term business objectives, our strategy is to supplement our internal pipeline by acquiring rights to additional drugs, drug candidates and other technologies that have the potential to provide us with new commercial opportunities. In particular, we are focusing on drug candidates for the treatment of patients with CF and other third-party drug candidates that could be developed for specialty markets. We may not be able to acquire, in-license or otherwise obtain rights to additional drugs, drug candidates or other technologies on acceptable terms or at all. We have faced and will continue to face significant competition for these types of drugs, drug candidates and other technologies from a variety of other companies with interests in the specialty pharmaceutical marketplace, many of which have significantly more financial resources and experience in business development activities than we have. In addition, non-profit organizations may be

willing to provide capital to the companies that control additional drugs, drug candidates or technologies, which may provide incentives for companies to advance these drugs, drug candidates or technologies independently. Because of these competitive pressures, the cost of acquiring, in-licensing or otherwise obtaining rights to such drugs, drug candidates or other technologies has grown dramatically in recent years and may be at levels that we cannot afford or that we believe are not justified by market potential. This competition is most intense for approved drugs and late-stage drug candidates, which have the lowest risk and would have the most immediate effect on our financial performance.

We may not realize the anticipated benefits of potential acquisitions or licenses to businesses, drugs, drug candidates and other technologies, and the integration following any such acquisition or license may disrupt our business and management.

If we acquire a business or the rights to additional drugs, drug candidates or other technologies, we may not realize the anticipated benefits of any such transaction, each of which involves numerous risks. These risks include:

- failure to successfully further develop the acquired or licensed drugs or technology or to achieve strategic objectives, including successfully developing and commercializing the drugs, drug candidates or technologies that we acquire or license;
- inadequate or unfavorable data from clinical trials evaluating the acquired or licensed drug or drug candidates;
- entry into markets in which we have no or limited direct prior experience or where competitors in such markets have stronger market positions;
- disruption of our ongoing business and distraction of our management and employees from other opportunities and challenges;
- potential failure of the due diligence processes to identify significant problems, liabilities or other shortcomings or challenges of an acquired company, or acquired or licensed product or technology, including but not limited to, problems, liabilities or other shortcomings or challenges with respect to intellectual property, product quality, safety, accounting practices, employee, customer or third party relations and other known and unknown liabilities;
- liability for activities of the acquired company or licensor before the acquisition or license, including intellectual property infringement claims, violations of laws, commercial disputes, tax liabilities, and other known and unknown liabilities;
- exposure to litigation or other claims in connection with, or inheritance of claims or litigation risk as a result of an acquisition or license, including but not limited to, claims from terminated employees, customers, former equity holders or other third-parties;
- difficulty in integrating the drugs, drug candidates, technologies, business operations and personnel of an acquired company; and
- difficulties in the integration of the acquired company's departments, systems, including accounting, human resource and other administrative systems, technologies, books and records, and procedures, as well as in maintaining uniform standards, controls, including internal control over financial reporting required by the Sarbanes-Oxley Act of 2002 and related procedures and policies.

Acquisitions and licensing arrangements are inherently risky, and ultimately, if we do not complete an announced acquisition or license transaction or integrate an acquired business, or an acquired or licensed drug, drug candidate or other technology successfully and in a timely manner, we may not realize the benefits of the acquisition or license to the extent anticipated and the perception of the effectiveness of our management team and our company may suffer in the marketplace. Additionally, we may later incur impairment charges related to assets acquired in any such transaction. For example, we acquired or licensed several drug candidates for the treatment of HCV infection, but due to adverse clinical data regarding these drug candidates and competitive pressures, we incurred significant costs and impairment charges but did not realize the expected benefits from these transactions. In addition, even if we achieve the long-term benefits associated with strategic transactions, our expenses and short-term costs may increase materially and adversely affect our liquidity and short-term net income (loss). 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.

We face risks in connection with existing and future collaborations with respect to the development, manufacture and commercialization of our products and drug candidates.

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

- Our collaborators may change the focus of their development and commercialization efforts or may have insufficient resources to effectively develop our drug candidates. The ability of some of our products and drug candidates to reach their potential could be limited if collaborators decrease or fail to increase development or commercialization efforts related to those products or drug candidates. Our collaboration agreements provide our collaborators with a level of discretion in determining the amount and timing of efforts and resources that they will apply to these collaborations.
- 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.
- Disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or termination of the research, development or commercialization of drug candidates, might lead to additional responsibilities for us with respect to drug candidates, or might result in litigation or arbitration. Any such disagreements would divert management attention and resources and be time-consuming and expensive.
- Collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation.
- Collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability.
- Investigations and/or compliance or enforcement actions against a collaborator, which may expose us to indirect liability as a result of our partnership with such collaborator.
- Our collaboration agreements are subject to termination under various circumstances.

Additionally, if a collaborator were to be involved in a business combination, it might deemphasize or terminate the development or commercialization of any drug candidate licensed to it by us. If one of our collaborators terminates its agreement with us, we may find it more difficult to attract new collaborators and our perception in the business and financial communities could be harmed.

We may not be able to attract collaborators or external funding for the development and commercialization of certain of our drug candidates.

As part of our ongoing strategy, we may seek additional collaborative arrangements or external funding for certain of our development programs and/or seek to expand existing collaborations to cover additional commercialization and/or development activities. We have a number of research programs and early-stage clinical development programs, some of which are being developed in collaboration with a third party. For example, in June 2014, we granted Janssen Pharmaceuticals, Inc. an exclusive worldwide license to develop and commercialize VX-787, a drug candidate discovered by us for the treatment of influenza. At any time, we may determine that in order to continue development of a drug candidate or program or successfully commercialize a drug we need to identify a collaborator or amend or expand an existing collaboration. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject drug candidate, the costs and complexities of manufacturing and delivering such drug candidate to patients, the

potential of competing products, the existence of uncertainty with respect to our ownership of the applicable intellectual property, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, and industry and market conditions generally. 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 of 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 elect to fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms 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 the possibility of our receiving a return on our investment in the program could be impaired.

Risks Related to Third-Party Manufacturing and Reliance on Third Parties

We depend on third-party manufacturers to manufacture our products and the materials we require for our clinical trials. 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 drugs for commercial use and our drug candidates for clinical trials. As a result of our reliance on these third-party manufacturers and suppliers, including a sole source supplier of one of the components in our products, 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 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 manage the business relationships with companies in our supply chain, we do not have control over their operations.

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 sales of our products and/or the timing of our clinical trials. Furthermore, we may be required to modify our production methods to permit us to economically manufacture our drugs for sale and our drug candidates for clinical trials. 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.

We require a supply of ivacaftor for commercial sale (as KALYDECO), and if we successfully obtain marketing approval for lumacaftor in combination with ivacaftor, we will require a commercial supply of lumacaftor in combination with ivacaftor. We also require a supply of ivacaftor, lumacaftor, VX-661 and our other drug candidates for use in our clinical trials. We obtain ivacaftor and lumacaftor (and the combinations thereof) to meet our commercial and clinical supply needs through a third-party manufacturing network. Our supply chain for KALYDECO and lumacaftor in combination with ivacaftor includes a sole source supplier of one of the components in our products. A disruption in the commercial supply of KALYDECO, or lumacaftor in combination with ivacaftor, if we successfully obtain marketing approval for such combination, would have a significant effect on patients, our business and our product revenues. A disruption in the clinical supply of drug products could delay the completion of clinical trials and affect timelines for regulatory filings. There can be no assurance that we will be able to establish and maintain secondary manufacturers for all of our ivacaftor or lumacaftor supply needs on a timely basis or at all.

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

We rely on third parties to conduct certain pre-clinical work and clinical trials, and those third parties may not perform satisfactorily, including failing to meet established deadlines for the completion of such studies and/or trials or failing to satisfy regulatory requirements.

We rely on third parties such as contract research organizations to help manage certain pre-clinical work and our clinical trials 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 but does not relieve us of our responsibilities. For example, we remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the clinical trial. Moreover, the FDA requires us to comply with standards, commonly referred to as good laboratory practices and good clinical practices for conducting, recording and reporting the results of pre-clinical and clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. 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 clinical trial or drug development program. 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 clinical trials or in specific circumstances might result in a requirement that a clinical trial be redone. Accordingly, our efforts to obtain regulatory approvals for and commercialize our drug candidates could be delayed.

Risks Related to Intellectual Property

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 pending patent applications in the United States, as well as counterparts in other countries. Our success will depend, in significant part, on our ability to obtain and defend U.S. and foreign patents covering our drugs, their uses and our processes, to preserve our trade secrets and to operate without infringing the proprietary rights of third parties. We cannot be certain that any patents will issue from our pending patent applications or, even if patents issue or have issued, that the issued claims will provide us with any adequate protection against competitive products or otherwise be commercially valuable.

Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering pharmaceutical inventions and the scope of claims made under these patents, our ability to obtain, maintain and enforce patents is uncertain and involves complex legal and factual questions. Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents in the U.S. The Leahy-Smith America Invents Act, or the Leahy-Smith Act, includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The United States Patent Office recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective in March 2013. The first to file provisions limit the rights of an inventor who is the first to invent an invention but is not the first to file an application claiming that invention. U.S. and foreign patent applications typically are maintained in confidence for a period of time after they initially are filed with the applicable patent office. Consequently, we cannot be certain that we were the first to invent, or the first to file patent applications on, our products or drug candidates or their use. If a third party also has filed a U.S. patent application relating to our drugs or drug candidates, their uses, or a similar invention, we may have to participate in interference proceedings to determine priority of invention and could lose our patent position. For applications governed by the Leahy-Smith Act, if a third-party has an earlier filed U.S. patent application relating to our drugs or drug candidates, their uses, or a similar invention, we may be unable to obtain an issued patent from our application.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability. Our patents may be challenged by third parties, resulting in the patent being deemed invalid, unenforceable or narrowed in scope, or the third party may circumvent any such issued patents. Also, our pending patent applications may not issue, and we may not receive any additional patents. Our patents might not contain claims that are sufficiently broad to prevent others from utilizing our technologies. For instance, the issued patents relating to our drugs or drug candidates may be limited to a particular molecule or molecules and may not cover similar molecules that have similar clinical properties. Consequently, our competitors may independently develop competing products that do not infringe our patents or other intellectual property. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future products.

The laws of many foreign jurisdictions do not protect intellectual property rights to the same extent as in the United States and many companies in our segment of the pharmaceutical industry have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions. If we encounter such difficulties in protecting or are otherwise

precluded from effectively protecting our intellectual property rights in foreign jurisdictions, our business could be substantially harmed.

Because of the extensive time required for the discovery, development, testing and regulatory review of drug candidates, it is possible that, a patent may expire before a drug candidate can be commercialized, or a patent may expire or remain in force for only a short period following commercialization of such drug candidate resulting in a minimal, if any, period of patent exclusivity. To the extent our drug candidates are not commercialized significantly ahead of the expiration date of any applicable patent, or to the extent we have no patent protection on such drug candidates, then, to the extent available we would rely on other forms of exclusivity, such as regulatory exclusivity provided by the FDCA and its counterpart agencies in various jurisdictions, and/or orphan drug exclusivity.

Uncertainty over intellectual property in the pharmaceutical and biotechnology industry has been the source of litigation and other disputes, which is inherently costly and unpredictable.

There is considerable uncertainty within our industry about the validity, scope and enforceability of many issued patents in the United States and elsewhere in the world, and, to date, the law and practice remains in substantial flux both in the agencies that grant patents and in the courts. We cannot currently determine the ultimate scope and validity of patents which may be granted to third parties in the future or which patents might be asserted as being infringed by the manufacture, use and sale of our products.

There has been, and we expect that there may continue to be, significant litigation in the industry regarding patents and other intellectual property rights. Litigation, arbitrations, administrative proceedings and other legal actions with private parties and governmental authorities concerning patents and other intellectual property rights may be protracted, expensive and distracting to management. Competitors may sue us as a way of delaying the introduction of our drugs or to remove our drugs from the market. Any litigation, including litigation related to Abbreviated New Drug Applications, or ANDA, interference proceedings to determine priority of inventions, derivations proceedings, *inter partes* review, oppositions to patents in foreign countries, litigation against our collaborators or similar actions, may be costly and time consuming and could harm our business. We expect that litigation may be necessary in some instances to determine the validity and scope of certain of our proprietary rights. Litigation may be necessary in other instances to determine the validity, scope or non-infringement of certain patent rights claimed by third parties to be pertinent to the manufacture, use or sale of our products. Ultimately, the outcome of such litigation could adversely affect the validity and scope of our patent or other proprietary rights, hinder our ability to manufacture and market our products, or result in the assessment of significant monetary damages against us that may exceed amounts, if any, accrued in our financial statements.

To the extent that valid present or future third-party patents or other intellectual property rights cover our drugs, drug candidates or technologies, we or our strategic collaborators may seek licenses or other agreements from the holders of such rights in order to avoid or settle legal claims. Such licenses may not be available on acceptable terms, which may hinder our ability to, or prevent us from being able to, manufacture and market our drugs. Payments under any licenses that we are able to obtain would reduce our profits derived from the covered products.

We may be subject to claims by third parties asserting that our employees or we have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that these employees or we have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's former employer. Litigation may be necessary to defend against these claims.

In addition, while it is our policy to require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. Our and their assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to management.

Risks Related To Our Operations

If we fail to manage our operations effectively, our business may suffer.

We have expanded and are continuing to expand our global operations and capabilities, which has placed, and will continue to place, significant demands on our management and our operational, research and development and financial infrastructure. To effectively manage our business, we need to:

- implement and clearly communicate our corporate-wide strategies;
- enhance our operational and financial infrastructure, including our controls over records and information;
- enhance our operational, financial and management processes, including our cross-functional decision-making processes and our budget prioritization systems;
- train and manage our global employee base;
- transition from a U.S.-centric company into an organization capable of developing and commercializing multiple drug candidates in international markets; and
- enhance our compliance and legal resources.

Risks associated with operating in foreign countries could materially adversely affect our business.

We have expanded our international operations over the past several years in order to market KALYDECO, prepare to market lumacaftor in combination with ivacaftor, if approved, and expand our research and development capabilities. In 2014, a substantial portion of our revenues and expenses were associated with our foreign operations. New laws and industry codes in the European Union and elsewhere have recently expanded transparency requirements regarding payments and transfers of value as well as patient-level clinical trial data, which will add to our compliance costs and expose us to potential sanctions for failing to meet the enhanced reporting demands in these jurisdictions. In addition, a significant portion of our commercial supply chain, including sourcing of raw materials and manufacturing, is located in China and the European Union. 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 and regulation of approved drugs in foreign countries;
- collectibility of accounts receivable;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- complying with local laws and regulations, which are interpreted and enforced differently across jurisdictions and which can change significantly over time;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in reduced revenues or increased operating expenses, and other obligations incident to doing business or operating in another country;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- import and export licensing requirements, tariffs, and other trade and travel restrictions;
- 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.

Our revenues are subject to foreign exchange rate fluctuations due to the global nature of our operations. Although we have foreign currency forward contracts to hedge forecasted product revenues denominated in foreign currencies, our efforts to reduce currency exchange losses may not be successful. As a result, currency fluctuations among our reporting currency, the U.S. dollar, and the currencies in which we do business will affect our operating results, often in unpredictable ways.

In addition, our international operations are subject to regulation under U.S. law. For example, the Foreign Corrupt Practices Act prohibits U.S. companies and their representatives from offering, promising, authorizing or making payments to foreign officials for the purpose of obtaining or retaining business abroad. In many countries, the health care professionals we regularly interact with may meet the definition of a foreign government official for purposes of the Foreign Corrupt Practices Act. We also are subject to import/export control laws. Failure to comply with domestic or foreign laws could result in various adverse consequences, including the possible delay in approval or refusal to approve a product, recalls, seizures, withdrawal of an approved product from the market, the imposition of civil or criminal sanctions, the prosecution of executives overseeing our international operations and corresponding bad publicity and negative perception of our company in foreign countries.

Our business has a substantial risk of product liability claims. If we do not obtain appropriate levels of insurance, product liability claims 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 drugs and drug candidates. We have product liability insurance and clinical trial insurance in amounts that we believe are adequate to cover this risk. However, our insurance may not provide adequate coverage against all potential liabilities. If a claim is brought against us, we might be required to pay legal and other expenses to defend the claim, as well as pay uncovered damage awards resulting from a claim brought successfully against us and these damages could be significant and have a material adverse effect on our financial condition. 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.

A breakdown or breach of our information technology systems could subject us to liability or interrupt the operation of our business.

We maintain and rely extensively on information technology systems and network infrastructures for the effective operation of our business. A disruption, infiltration or failure of our information technology systems or any of our data centers as a result of software or hardware malfunctions, computer viruses, cyber attacks, employee theft or misuse, power disruptions, natural disasters, floods or accidents could cause breaches of data security and loss of critical data, which in turn could materially adversely affect our business and subject us to both private and governmental causes of action. While we have implemented security measures in an attempt to minimize these risks to our data and information technology systems, there can be no assurance that our efforts will prevent breakdowns or breaches in our systems that could adversely affect our business.

If we fail to attract and retain skilled employees, our business could be materially harmed.

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 marketing and commercialization of medicines. We face intense competition for our personnel from our competitors and other companies throughout our industry. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. 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 Massachusetts makes it difficult to attract employees from other parts of the country to Massachusetts. In addition, our October 2013 restructuring activities may make it more difficult to attract and retain qualified employees. Our ability to commercialize our products, and achieve our research and development objectives, depends on our ability to respond effectively to these demands. If we are unable to hire and retain qualified personnel, 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 affect our business.

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. A loss of key personnel or a failure to properly integrate new personnel could be disruptive. We have entered into employment agreements with some executives 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 executive on relatively short notice. The value to employees of stock-related benefits that vest over time—such as options and restricted stock—is significantly affected by movements in our stock price, 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.

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 regulated use of hazardous materials, chemicals and various controlled and radioactive compounds. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards prescribed by state, federal and foreign regulations, the risk of loss of, or accidental contamination or injury from, these materials cannot 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. We maintain insurance to cover pollution conditions or other extraordinary or unanticipated events relating to our use and disposal of hazardous materials that we believe is appropriate based on the small amount of hazardous materials we generate. 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.

If our facilities were to experience a catastrophic loss, our operations would be seriously harmed.

Most of our operations, including our research and development activities, are conducted in a limited number of facilities. If any of our major facilities were to experience a catastrophic loss, due to a fire, earthquake or similar event, our operations could be seriously harmed. For example, our corporate headquarters, as well as additional leased space that we use for certain logistical and laboratory operations and manufacturing, are located in a flood zone along the Massachusetts coast. Any such losses at our facilities could disrupt our operations and result in a significant disruption in our research, development, manufacturing and/or commercial activities, the loss or critical data and/or large expenses to repair or replace the facility, which would have a material adverse effect on our business.

Risks Related to Holding Our Common Stock and Financing Activities

Our indebtedness could materially and adversely affect our financial condition, and the terms of our credit agreement impose restrictions on our business, reducing our operational flexibility and creating default risks.

In July 2014, we entered into a credit agreement that provides for a \$300.0 million senior secured term loan. We are required to repay principal on the loan in installments of \$15.0 million per quarter from October 1, 2015 through July 1, 2016 and in installments of \$60.0 million per quarter from October 1, 2016 through July 9, 2017.

Our indebtedness could have important consequences to our business, including increasing our vulnerability to general adverse financial, business, economic and industry conditions, as well as other factors that are beyond our control. In October 2015, we will be required to begin repayment of the principal amount of our indebtedness, thereby reducing the availability of future cash flows to fund working capital, capital expenditures, acquisitions, research and development efforts and other general corporate purposes.

The credit agreement requires that we maintain, on a quarterly basis, a minimum level of KALYDECO net revenues. Further, the credit agreement includes negative covenants, subject to exceptions, restricting or limiting our ability and the ability of our subsidiaries to, among other things, incur additional indebtedness, grant liens, engage in certain investment,

acquisition and disposition transactions, pay dividends, repurchase capital stock and enter into transactions with affiliates. As a result, we may be restricted from engaging in business activities that may otherwise improve our business. Failure to comply with the covenants could result in an event of default that could trigger acceleration of our indebtedness, which would require us to repay all amounts owing under the credit agreement and/or our capital leases and could have a material adverse effect on our business.

Additionally, our obligations under the credit agreement are unconditionally guaranteed by certain of our domestic subsidiaries. All obligations under the credit agreement, and the guarantees of those obligations, are secured, subject to certain exceptions, by substantially all of our assets and the assets of all guarantors, including the pledge of all or a portion of the equity interests of certain of our subsidiaries. If we fail to satisfy our obligations under the credit agreement or are unable to obtain sufficient funds to make payments, the lenders could foreclose on our pledged collateral.

Our stock price may fluctuate.

Market prices for securities of companies such as ours are highly volatile. From January 1, 2014 to December 31, 2014, our common stock traded between \$59.79 and \$124.35 per share. The market for our stock, like that of other companies in the biotechnology industry, has experienced significant price and volume fluctuations. The future market price of our securities could be significantly and adversely affected by factors such as:

- the information contained in our quarterly earnings releases, including our net product revenues and operating expenses for completed periods and guidance regarding future periods;
- announcements of FDA actions with respect to our drugs or our competitors' drugs, or regulatory filings for our drug candidates or those of our competitors, or announcements of interim or final results of clinical trials or nonclinical studies relating to our drugs, drug candidates or those of our competitors;
- prescription data and other information disclosed by third parties regarding our business or products;
- technological innovations or the introduction of new drugs by our competitors;
- government regulatory action;
- public concern as to the safety of drugs developed by us or our competitors;
- 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;
- business development, capital structuring or financing activities; and
- general worldwide or national economic, political and capital market conditions.

Our quarterly operating results are subject to significant fluctuation.

Our operating results have fluctuated from quarter to quarter in the past, and we expect that they will continue to do so in the future. Factors that have caused quarterly fluctuations in the past include variable amounts of revenues, impairment charges, charges for excess and obsolete inventories, changes in the fair value of derivative instruments and the deconsolidation of Alios. We cannot accurately predict our future revenues from our products, and our revenues from our products could vary on a quarterly basis. Our revenues from our products may be affected by, among other factors, the timing of orders from our significant customers. Our revenues also are subject to foreign exchange rate fluctuations due to the global nature of our operations. Although we have foreign currency forward contracts to hedge forecasted product revenues denominated in foreign currencies, our efforts to reduce currency exchange losses may not be successful. As a result, currency fluctuations among our reporting currency, the U.S. dollar, and the currencies in which we do business may affect our operating results, often in unpredictable ways. Our quarterly results also could be materially affected by significant charges, which may or may not be similar to charges we have experienced in the past. Most of our operating expenses relate

to our research and development activities, do not vary directly with the amount of revenues and are difficult to adjust in the short term. As a result, if revenues in a particular quarter are below expectations, we are unlikely to reduce operating expenses proportionately for that quarter. These examples are only illustrative and other risks, including those discussed in these “Risk Factors,” could also cause fluctuations in our reported financial results. Our operating results during any one period do not necessarily suggest the results of future periods.

We expect that results from our 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 products and drug candidates or competitive products or potentially competitive 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 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 products or drug candidates, competitive products or potentially competitive 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 the timing of receipt of data from our clinical trials and by the general preference among pharmaceutical companies to disclose clinical data during medical conferences. In addition, the information disclosed about our clinical trials, or our competitors’ clinical trials, may be based on interim rather than final data that may involve interpretation difficulties and may in any event not accurately predict final results.

We could be negatively affected by securities class action complaints.

On May 28, 2014, a purported shareholder class action *Local No. 8 IBEW Retirement Plan & Trust v. Vertex Pharmaceuticals Incorporated, et al.* was filed in the United States District Court for the District of Massachusetts, naming us and certain of our current and former officers and directors as defendants. The lawsuit alleged that we made material misrepresentations and/or omissions of material fact in our disclosures during the period from May 7, 2012 through May 29, 2012, all in violation of Section 10(b) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder. The purported class consists of all persons (excluding defendants) who purchased our common stock between May 7, 2012 and May 29, 2012. The plaintiffs seek unspecified monetary damages, costs and attorneys’ fees as well as disgorgement of the proceeds from certain individual defendants’ sales of our stock. On October 8, 2014, the Court approved Local No. 8 IBEW Retirement Fund as lead plaintiff, and Scott and Scott LLP as lead counsel for the plaintiff and the putative class. We filed a motion to dismiss the complaint on December 8, 2014 and the plaintiffs filed their opposition to our motion to dismiss on January 22, 2015. We believe that this action is without merit and intend to defend it vigorously. This action will take time and money to defend and may distract us from more productive activities. No assurance can be provided that we will be successful in defending this claim or that insurance proceeds will be sufficient to cover any liability under such claims.

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

We expect to incur losses in 2015 and may in the future need to raise additional capital. We have borrowed \$300.0 million under a credit agreement that we entered into in the third quarter of 2014. In recent periods, we also have received significant proceeds from the issuance of common stock under our employee benefit plans, but the amount and timing of future proceeds from employee benefits plans is uncertain. Any potential public offering, private placement or debt financing may or may not be similar to the transactions that we entered into 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. Additionally, our pledge of our assets as collateral to secure our obligations under our credit agreement may limit our ability to obtain additional debt financing. 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.

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

As of December 31, 2014, we had 241.8 million shares of common stock issued and outstanding. As of December 31, 2014, we also had outstanding options to purchase 12.0 million shares of common stock with a weighted-average exercise price of \$56.81 per share. Outstanding vested options are likely to be exercised if the market price of our common stock exceeds the applicable exercise price, and, in the future, we expect to issue additional options and restricted stock to directors and employees. In addition, we may issue additional common stock or restricted securities in the future as part of financing activities or business development activities and any such issuances may have a dilutive effect on our then-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. 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.

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 and Massachusetts state laws 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. 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.

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:

- expectations regarding the result and timing of our pending applications for marketing approval for lumacaftor in combination with ivacaftor;
- our 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 net product revenues from KALYDECO and potential net product revenues from lumacaftor in combination with ivacaftor;
- our expectations regarding clinical trials, development timelines and regulatory authority filings and submissions for ivacaftor, lumacaftor, VX-661 and combinations thereof;
- our ability to successfully market our products or any of our other drug candidates for which we obtain regulatory approval;
- our expectations regarding the timing and structure of clinical trials of our drugs and drug candidates, including, ivacaftor, lumacaftor, VX-661, VX-210, VX-803 and VX-970, and the expected timing of our receipt of data from our ongoing and planned clinical trials;
- the data that will be generated by ongoing and planned clinical trials and the ability to use that data to advance compounds, continue development or support regulatory filings;
- 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;

- our plan to continue investing in our research and development programs and our strategy to develop our drug candidates, alone or with third party-collaborators;
- the establishment, development and maintenance of collaborative relationships;
- potential business development activities;
- potential fluctuations in foreign currency exchange rates;
- our ability to use our research programs to identify and develop new drug candidates to address serious diseases and significant unmet medical needs; 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 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, 2014 regarding our filings under the Securities Exchange Act of 1934, as amended, that have not been resolved.

ITEM 2. PROPERTIES

Corporate Headquarters

In the first quarter of 2014, we relocated our corporate headquarters from Cambridge, Massachusetts to two connected buildings that were built in Boston, Massachusetts. We lease approximately 1.1 million square feet of office and laboratory space in these two buildings pursuant to two leases that we entered into in May 2011. The leases commenced in December 2013 and will extend until December 2028. We have an option to extend the term of the leases for an additional ten years. In addition, in connection with our relocation to Boston, we entered into a lease in June 2012 for approximately 100,000 square feet of space in the Boston Marine Industrial Park, in close proximity to our corporate headquarters. We are using this additional space for certain logistical and laboratory operations and manufacturing equipment that will complement the office and laboratory facilities at our corporate headquarters.

Existing Facilities in Cambridge, Massachusetts

We currently lease approximately 100,000 square feet of laboratory and office space for our former corporate headquarters, which were located at 130 Waverly Street, and approximately 192,000 square feet of laboratory and office space at 200 Sidney Street, located adjacent to our former corporate headquarters. The 130 Waverly Street and 200 Sidney Street leases expire on December 31, 2015. We lease approximately 21,000 square feet at 21 Erie Street, Cambridge, Massachusetts under a lease that expires in May 2017. We have completed decommissioning of our existing laboratory facilities at these locations.

The lease for our Kendall Square, Cambridge, Massachusetts facility will expire in 2018. We have subleased approximately 267,000 square feet of the approximately 290,000 square feet of the Kendall Square facility under subleases each with terms ending in 2018.

Additional United States and Worldwide Locations

In addition to our facilities in Massachusetts, we lease an aggregate of approximately 252,000 square feet of space in facilities located in California, Washington D.C., Iowa, Canada, Switzerland, the United Kingdom, France, Germany, Australia, Ireland, Spain, Italy and the Netherlands. This includes laboratory and office space to support our research and development organizations in San Diego, California, Montreal, Canada, and Milton Park, Abingdon, England.

ITEM 3. LEGAL PROCEEDINGS

On May 28, 2014, a purported shareholder class action *Local No. 8 IBEW Retirement Plan & Trust v. Vertex Pharmaceuticals Incorporated, et al.* was filed in the United States District Court for the District of Massachusetts, naming us and certain of our current and former officers and directors as defendants. The lawsuit alleged that we made material misrepresentations and/or omissions of material fact in our disclosures during the period from May 7, 2012 through May 29, 2012, all in violation of Section 10(b) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder. The purported class consists of all persons (excluding defendants) who purchased our common stock between May 7, 2012 and May 29, 2012. The plaintiffs seek unspecified monetary damages, costs and attorneys' fees as well as disgorgement of the proceeds from certain individual defendants' sales of our stock. On October 8, 2014, the Court approved Local No. 8 IBEW Retirement Fund as lead plaintiff, and Scott and Scott LLP as lead counsel for the plaintiff and the putative class. We filed a motion to dismiss the complaint on December 8, 2014 and the plaintiffs filed their opposition to our motion to dismiss on January 22, 2015. We believe the claims to be without merit and intend to vigorously defend the litigation.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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 Stock Market LLC:

Year Ended December 31, 2014:	High	Low
First quarter	\$ 87.77	\$ 67.49
Second quarter	98.80	59.79
Third quarter	116.88	84.41
Fourth quarter	124.35	96.43

Year Ended December 31, 2013:	High	Low
First quarter	\$ 55.93	\$ 42.72
Second quarter	87.47	51.28
Third quarter	89.96	73.43
Fourth quarter	78.38	58.06

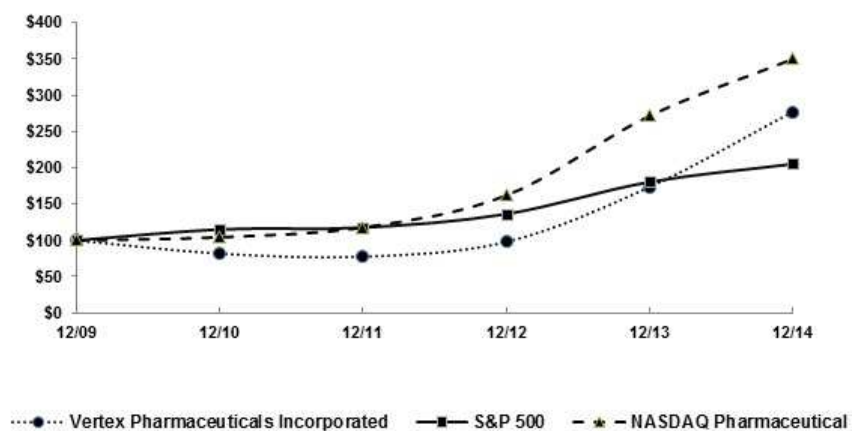
Shareholders

As of January 30, 2015, there were 1,708 holders of record of our common stock.

Performance Graph

CUMULATIVE TOTAL RETURN

Based on Initial Investment of \$100 on December 31, 2009
with dividends reinvested (fiscal years ended December 31)



We became part of the Standard & Poor's 500 ("S&P 500[®]") Stock Index in 2013.

Dividends

We have never declared or paid any cash dividends on our common stock, and we currently expect that any future earnings will be retained for use in our business. Any future determination to declare cash dividends will be subject to the discretion of our board of directors and applicable law and will depend on various factors, including our results of operations, financial condition, prospects and any other factors deemed relevant by our board of directors. In addition, our credit agreement limits our ability to pay cash dividends on our common stock.

Issuer Repurchases of Equity Securities

The table set forth below shows all repurchases of securities by us during the three months ended December 31, 2014 :

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, 2014 to Oct. 31, 2014	38,121	\$ 0.01	—	—
Nov. 1, 2014 to Nov. 30, 2014	21,911	\$ 0.01	—	—
Dec. 1, 2014 to Dec. 31, 2014	16,253	\$ 0.01	—	—

The repurchases were made under the terms of our Amended and Restated 2006 Stock and Option Plan. Under this plan, we award shares of restricted stock to our employees that typically are subject to a lapsing right of repurchase by us. We may exercise this right of repurchase if 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 Amended and Restated 2006 Stock and Option Plan are available for future awards under the terms of the plan.

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

OVERVIEW

We are in the business of discovering, developing, manufacturing and commercializing small molecule drugs. We use precision medicine approaches to create transformative drugs for patients with serious diseases in specialty markets. Our business is focused on developing and commercializing therapies for the treatment of cystic fibrosis, or CF, and advancing our research and early-stage development programs, while maintaining our financial strength.

We have marketed KALYDECO (ivacaftor) since it was approved in 2012 for the treatment of patients six years of age and older with CF who have specific genetic mutations in their cystic fibrosis transmembrane conductance regulator, or *CFTR*, gene. In June 2014, we announced data from two Phase 3 clinical trials, referred to as TRAFFIC and TRANSPORT, of lumacaftor, a *CFTR* corrector compound, in combination with ivacaftor, a *CFTR* potentiator compound. In TRAFFIC and TRANSPORT, we evaluated the combination regimen in patients with CF twelve years of age and older who have two copies (homozygous) of the F508del mutation in their *CFTR* gene, which is the most prevalent form of CF. In November 2014, we submitted a New Drug Application, or NDA, to the United States Food and Drug Administration, or FDA, and a Marketing Authorization Application, or MAA, to the European Medicines Agency, or EMA, for lumacaftor in combination with ivacaftor.

Cystic Fibrosis

Our plan is to (i) continue to increase the number of patients eligible for treatment with ivacaftor, (ii) obtain marketing approval for lumacaftor in combination with ivacaftor for the treatment of patients with CF twelve years of age and older who have two copies of the F508del mutation in their *CFTR* gene and (iii) research and develop earlier-stage compounds for the treatment of CF.

Ivacaftor

KALYDECO (ivacaftor) was approved in 2012 in the United States and European Union as a treatment for patients with CF six years of age and older who have the G551D mutation in their *CFTR* gene. Our KALYDECO net product revenues have been increasing over the last several years due to the increased number of patients who are being treated with KALYDECO in the United States and ex-U.S. markets as we have expanded the label for KALYDECO and completed reimbursement discussions for a portion of the patients eligible for treatment with KALYDECO in ex-U.S. markets. We expect our KALYDECO net product revenues to increase further in 2015 as a result of additional label expansions and an increase in the number of patients with CF for whom reimbursement is available in ex-U.S. markets.

Lumacaftor in Combination with Ivacaftor

In November 2014, we submitted an NDA to the FDA and an MAA to the EMA for lumacaftor in combination with ivacaftor in patients with CF twelve years of age and older who are homozygous for the F508del mutation in their *CFTR* gene. In 2015, we submitted in Canada, and expect to submit in Australia, regulatory applications seeking approval for lumacaftor in combination with ivacaftor. These regulatory applications were based on two Phase 3 randomized, double-blind, placebo-controlled clinical trials of lumacaftor in combination with ivacaftor referred to as TRAFFIC and TRANSPORT. All four treatment arms in TRAFFIC and TRANSPORT met their primary endpoints of mean absolute improvement in percent predicted forced expiratory volume in one second, or ppFEV₁, as compared to placebo.

The FDA has granted us priority review of the NDA and the European Committee for Medicinal Products for Human Use has granted our request for Accelerated Assessment of the MAA. The target date for the FDA to complete its review of the NDA for lumacaftor in combination with ivacaftor under the Prescription Drug User Fee Act, or PDUFA, is July 5, 2015. Accordingly, we expect to begin recognizing net product revenues from lumacaftor in combination with ivacaftor in the United States in mid-2015. We do not expect significant net product revenues from lumacaftor in combination with ivacaftor from ex-U.S. markets in 2015 due to the reimbursement discussions that will be required in these markets following the potential approval of the combination in the fourth quarter of 2015. We believe that there are approximately 22,000 patients with CF twelve years of age and older who are homozygous for the F508del mutation in North America, Europe and Australia, including approximately 8,500 in the United States and approximately 12,000 in Europe.

VX-661 in Combination with Ivacaftor

In 2015, we initiated a Phase 3 development program for VX-661 in combination with ivacaftor in patients with CF twelve years of age and older, including patients who are homozygous for the F508del mutation in their *CFTR* gene and patients who have one copy of the F508del mutation in their *CFTR* gene (heterozygous).

Next-generation CFTR Corrector Compounds

We also are seeking to identify and develop next-generation CFTR corrector compounds that could be evaluated in future dual- and/or triple-combination treatment regimens with the potential to provide additional benefits to patients with CF. We have multiple next-generation correctors in the lead-optimization stage of research and expect to begin clinical development of a next-generation corrector in 2015.

Research and Early-Stage Development

We are engaged in a number of other research and early-stage development programs, including programs in the areas of oncology and neurology. We plan to continue investing in our research programs and fostering scientific innovation in order to identify and develop transformative medicines with a focus on CF and other genetic diseases, oncology and neurology. We believe that pursuing research in diverse areas allows us to balance the risks inherent in drug development and may provide drug candidates that will form our pipeline in future years.

HCV Infection

In 2012 and 2013, we recognized significant net product revenues based on sales of INCIVEK (telaprevir), a product for the treatment of genotype 1 HCV infection that we marketed in North America. In October 2013, in response to declining sales of INCIVEK and increased competition, we reduced our focus on marketing INCIVEK and eliminated the U.S. field-based sales force that had been promoting INCIVEK. We have withdrawn INCIVEK from the market in the United States, and we expect to wind-down any remaining activities relating to the field of HCV infection in 2015.

In addition, we incurred an intangible asset impairment charge of \$412.9 million in the first quarter of 2013 related to VX-222 a drug candidate for the treatment of HCV infection. In the fourth quarter of 2014, we provided notice of termination of our collaboration with Alios BioPharma, Inc., or Alios, related to the development of HCV nucleotide analogues. Our financial statements reflect the activities related to Alios as discontinued operations.

Drug Discovery and Development

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. Potential drug candidates are subjected to rigorous evaluations, 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 development, and most drug candidates that do advance into development never receive marketing approval. Because our investments in drug candidates 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 abrupt changes in focus and priorities as new information becomes available and as we gain additional understanding of our ongoing programs and potential new programs, as well as those of our competitors.

If we believe that data from a completed registration program support approval of a drug candidate, we submit an NDA to the FDA requesting approval to market the drug candidate in the United States and 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 have substantial discretion in deciding whether or not a drug candidate should be granted approval based on the benefits and risks of the drug candidate in the treatment of a particular disease, and could delay, limit or deny regulatory approval. 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.

Regulatory Compliance

Our marketing of pharmaceutical products is subject to extensive and complex laws and regulations. We have a corporate compliance program designed to actively identify, prevent and mitigate risk through the implementation of compliance policies and systems, and through the promotion of a culture of compliance. Among other laws, regulations and standards, we are subject to various U.S. federal and state laws, and comparable foreign laws pertaining to health care fraud and abuse, including anti-kickback and false claims statutes, and laws prohibiting the promotion of drugs for unapproved or off-label uses. Anti-kickback laws make it illegal for a prescription drug manufacturer to solicit, offer, receive or pay any remuneration 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. We expect to continue to devote substantial resources to maintain, administer and expand these compliance programs globally.

Reimbursement

Sales of our products depend, to a large degree, on the extent to which our products will be covered by third-party payors, such as government health programs, commercial insurance and managed health care organizations. We dedicate substantial management and other resources in order to obtain and maintain appropriate levels of reimbursement for our products from third-party payors, including governmental organizations in the United States and ex-U.S. markets. If lumacaftor in combination with ivacaftor is approved, in the United States we will engage in discussions with numerous commercial insurers and managed health care organizations, along with government health programs that are typically managed by authorities in the individual states. In Europe and many other foreign countries, we will need to focus on obtaining and maintaining government reimbursement for lumacaftor in combination with ivacaftor on a country-by-country basis, because in many foreign countries patients are unable to access prescription pharmaceutical products that are not reimbursed by their governments. Consistent with our experience with KALYDECO when it was first approved, we expect reimbursement discussions in ex-U.S. markets may take a significant period of time following obtaining marketing approval for the combination therapy.

RESULTS OF OPERATIONS

				2014/2013 Comparison		2013/2012 Comparison	
	2014	2013	2012	Increase/(Decrease)		Increase/(Decrease)	
				\$	%	\$	%
	(in thousands)			(in thousands, except percentages)			
Revenues	\$ 580,415	\$ 1,211,975	\$ 1,527,042	\$ (631,560)	(52)%	\$ (315,067)	(21)%
Operating costs and expenses	1,272,827	1,821,983	1,480,315	(549,156)	(30)%	341,668	23 %
Other items, net	(45,231)	106,386	(14,456)	n/a	n/a	n/a	n/a
(Loss) income from continuing operations attributable to Vertex	(737,643)	(503,622)	32,271	234,021	46 %	n/a	n/a
(Loss) income from discontinued operations attributable to Vertex	(912)	58,594	(139,303)	n/a	n/a	n/a	n/a
Net loss attributable to Vertex	\$ (738,555)	\$ (445,028)	\$ (107,032)	\$ 293,527	66 %	\$ 337,996	316 %

Net Loss Attributable to Vertex

Net loss attributable to Vertex has been affected by increasing KALYDECO net product revenues, rapidly declining INCIVEK net product revenues and royalty revenues, significant intangible asset impairment charges, inventory write-offs, restructuring charges and income (loss) from discontinued operations during the three year period ended December 31, 2014.

Comparison of Net Loss Attributable to Vertex 2014 vs. 2013

Net loss attributable to Vertex was \$738.6 million in 2014 compared to net loss attributable to Vertex of \$445.0 million in 2013 . Our revenues decreased in 2014 as compared to 2013 due to a \$442.3 million decrease in INCIVEK revenues, a \$166.1 million decrease in collaborative revenues and a \$115.7 million decrease in royalty revenues, partially offset by a \$92.5 million increase in KALYDECO revenues. Our operating costs and expenses decreased in 2014 as compared to 2013 primarily due to an intangible asset impairment charge related to VX-222 of \$412.9 million recorded in 2013 and decreases in cost of product revenues, royalty expenses, research and development expenses and sales, general and administrative expenses. In 2014, the \$45.2 million loss reflected in other items, net was primarily due to interest expense associated with the leases for our corporate headquarters. In 2013 the \$106.4 million gain reflected in other items, net was primarily due to a benefit from income taxes we recorded related to the VX-222 impairment charge. The income (loss) from discontinued operations in 2014 and 2013 related to a collaboration with Alios that was terminated in 2014. In 2015, we expect that our net income (loss) will be largely dependent on the timing of potential regulatory approval of lumacaftor in combination with ivacaftor in the United States and on our success in commercializing this combination therapy following the potential approval.

Comparison of Net Loss Attributable to Vertex 2013 vs. 2012

Net loss attributable to Vertex was \$445.0 million in 2013 compared to net loss attributable to Vertex of \$107.0 million in 2012 . Our revenues decreased in 2013 as compared to 2012 due to a \$695.5 million decrease in INCIVEK net product revenues partially offset by a \$199.6 million increase in KALYDECO net product revenues and a \$165.7 million increase in collaborative revenues. Our operating costs and expenses increased in 2013 as compared to 2012 primarily due to an intangible asset impairment charge related to VX-222 of \$412.9 million recorded in 2013 and an increase research and development expenses, partially offset by a decrease in sales, general and administrative expenses and an aggregate of \$133.2 million in cost of product revenues related to charges for excess and obsolete INCIVEK inventories that we incurred in 2012. The income (loss) from discontinued operations in 2013 and 2012 related to a collaboration with Alios that was terminated in 2014.

Earnings Per Share

In 2014 , 2013 and 2012 , net loss attributable to Vertex was \$3.14 , \$1.98 and \$0.50 , respectively, per diluted share. In 2014 and 2013 , net loss from continuing operations attributable to Vertex was \$3.14 and \$2.24 , respectively, per diluted share. In 2012 , net income from continuing operations attributable to Vertex was \$0.15 per diluted share.

Common Shares Outstanding

Our shares of outstanding common stock increased by 8.0 million shares from 233.8 million shares on December 31, 2013 to 241.8 million shares on December 31, 2014 due to our issuance in 2014 of approximately 8.0 million shares of common stock pursuant to our employee equity programs. Our shares of outstanding common stock increased by 16.5 million shares from 217.3 million shares on December 31, 2012 to 233.8 million shares on December 31, 2013 due to our issuance in 2013 of approximately 8.3 million shares of common stock upon conversion of our convertible senior subordinated notes and 8.2 million shares of common stock issued pursuant to our employee equity programs.

Stock-based Compensation

Stock-based compensation expense was \$177.5 million, \$126.8 million and \$113.8 million in 2014, 2013 and 2012, respectively. Our stock-based compensation expense has been increasing due to the increase in our stock price and the associated increase in the grant-date fair value of equity awards.

Revenues

	2014	2013	2012	2014/2013 Comparison		2013/2012 Comparison	
				Increase/(Decrease)		Increase/(Decrease)	
				\$	%	\$	%
	(in thousands)			(in thousands, except percentages)			
Product revenues, net	\$ 487,821	\$ 837,645	\$ 1,333,458	\$ (349,824)	(42)%	\$ (495,813)	(37)%
Royalty revenues	40,919	156,592	141,498	(115,673)	(74)%	15,094	11 %
Collaborative revenues	51,675	217,738	52,086	(166,063)	(76)%	165,652	318 %
Total revenues	\$ 580,415	\$ 1,211,975	\$ 1,527,042	\$ (631,560)	(52)%	\$ (315,067)	(21)%

Product Revenues, Net

	2014	2013	2012
	(in thousands)		
KALYDECO	\$ 463,750	\$ 371,285	\$ 171,645
INCIVEK	24,071	466,360	1,161,813
Total product revenues, net	\$ 487,821	\$ 837,645	\$ 1,333,458

Our total net product revenues have been decreasing on an annual basis due to significant decreases in INCIVEK (telaprevir) net product revenues partially offset by increases in KALYDECO (ivacaftor) net product revenues. In 2015, we expect net product revenues to increase due to (i) expected increases in KALYDECO net product revenues and (ii) potential net product revenues in the second half of 2015 in the United States from sales of lumacaftor in combination with ivacaftor.

We began marketing KALYDECO in the United States and certain international markets in 2012. In 2014, the FDA approved multiple label expansions for KALYDECO, and in July 2014 we obtained the first label expansion for KALYDECO in the European Union. In 2014, KALYDECO net product revenues were \$463.8 million, including \$201.4 million of net product revenues from ex-U.S. markets, compared to KALYDECO net product revenues of \$371.3 million, including \$154.7 million of net product revenues from ex-U.S. markets in 2013. The increase in KALYDECO net product revenues in 2014, compared to 2013, was primarily due to additional patients being treated with KALYDECO as we completed reimbursement discussions in various jurisdictions and increased the number of patients eligible to receive KALYDECO through label expansions. In 2015, we expect further increases in KALYDECO net product revenues as we continue to increase the number of patients that are treated with KALYDECO.

INCIVEK net product revenues were \$24.1 million in 2014, a significant decrease from \$466.4 million in 2013. We have withdrawn INCIVEK from the market in the United States, and we do not expect significant INCIVEK net product revenues in future periods.

We believe our total net product revenues for 2015 will be dependent on the timing of potential regulatory approval of lumacaftor in combination with ivacaftor in the United States and on our success in commercializing this combination therapy following the potential approval. We submitted an NDA to the FDA and an MAA to the EMA for lumacaftor in

combination with ivacaftor in November 2014. The target date for the FDA to complete its review of the NDA under PDUFA is July 5, 2015. Accordingly, we expect to begin recognizing net product revenues from lumacaftor in combination with ivacaftor in the United States in mid-2015. We do not expect significant net product revenues from lumacaftor in combination with ivacaftor in 2015 from ex-U.S. markets due to the reimbursement discussions that will be required in these markets following the potential approval of the combination in the fourth quarter of 2015.

Royalty Revenues

Our royalty revenues were \$40.9 million, \$156.6 million and \$141.5 million in 2014, 2013 and 2012, respectively. Since the beginning of 2014, our royalty revenues have consisted of (i) revenues related to a cash payment we received in 2008 when we sold our rights to certain HIV royalties and (ii) revenues related to certain third-party royalties payable by our collaborators on sales of HIV drugs and telaprevir that also result in corresponding royalty expenses. In 2012 and 2013, we received significant royalties from Janssen NV based on INCIVO (telaprevir) net product sales. Our rights to receive royalties on INCIVO sales ended at the beginning of 2014, and Janssen NV currently has a fully-paid license to market INCIVO in its territories, subject to the continued payment of certain third-party royalties.

Collaborative Revenues

Our collaborative revenues have fluctuated significantly on an annual basis. This variability has been due to, among other things: the recognition of payments from Janssen Inc. related to our outlicense of VX-787 in 2014; the 2013 amendment of our collaboration agreement with Janssen NV that resulted in significant collaborative revenues in 2013; and revenues we received from services we provided to Janssen NV and Mitsubishi Tanabe through our third-party manufacturing network in 2012.

The table presented below is a summary of our collaborative revenues for 2014, 2013 and 2012 :

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands)		
Collaborative revenues:			
Janssen Inc.	\$ 35,000	\$ —	\$ —
Janssen NV	7,104	203,437	16,178
CFFT	6,455	14,322	16,960
Mitsubishi Tanabe	—	—	18,879
Other	3,116	(21)	69
Total collaborative revenues	<u>\$ 51,675</u>	<u>\$ 217,738</u>	<u>\$ 52,086</u>

In 2014, the majority of our collaborative revenues related to \$35.0 million in payments we received from Janssen Inc. related to our outlicense of VX-787.

In 2013, we recognized \$203.4 million in Janssen NV collaborative revenues, which were primarily attributable to the \$152.0 million payment we received pursuant to our amendment to the Janssen NV collaboration agreement. These collaborative revenues also included the acceleration of the remaining deferred revenues related to the up-front payment we received from Janssen NV in 2006. In 2014, our collaborative revenues from Janssen NV decreased to \$7.1 million, and we do not expect significant collaborative revenues from Janssen NV in future periods.

Collaborative revenues from CFFT decreased from \$14.3 million in 2013 to \$6.5 million in 2014 due to the completion of the reimbursable research activities pursuant to our collaboration with CFFT in February 2014. Collaborative revenues from CFFT decreased slightly in 2012 as compared to 2013. We do not expect significant collaborative revenues from CFFT in future periods.

In 2012, we recognized \$9.6 million in collaborative revenues related to a one-time payment that we received from Mitsubishi Tanabe in 2009 and recognized over a period of time, and also recognized revenues related to manufacturing services we provided to Mitsubishi Tanabe through our third-party manufacturing network. We have not recognized any collaborative revenues from Mitsubishi Tanabe since the first half of 2012 and will not recognize any future collaborative revenues pursuant to our collaboration agreement with Mitsubishi Tanabe.

Operating Costs and Expenses

				2014/2013 Comparison		2013/2012 Comparison	
	2014	2013	2012	Increase/(Decrease)		Increase/(Decrease)	
				\$	%	\$	%
	(in thousands)			(in thousands, except percentages)			
Cost of product revenues	\$ 39,725	\$ 88,979	\$ 236,742	\$ (49,254)	(55)%	\$ (147,763)	(62)%
Royalty expenses	21,262	41,298	43,143	(20,036)	(49)%	(1,845)	(4)%
Research and development expenses	855,506	882,097	765,905	(26,591)	(3)%	116,192	15 %
Sales, general and administrative expenses	305,409	356,188	432,681	(50,779)	(14)%	(76,493)	(18)%
Restructuring expenses	50,925	40,521	1,844	10,404	26 %	38,677	2,097 %
Intangible asset impairment charges	—	412,900	—	(412,900)	(100)%	412,900	n/a
Total costs and expenses	<u>\$ 1,272,827</u>	<u>\$ 1,821,983</u>	<u>\$ 1,480,315</u>	<u>\$ (549,156)</u>	<u>(30)%</u>	<u>\$ 341,668</u>	<u>23 %</u>

Cost of Product Revenues

Our cost of product revenues includes the cost of producing inventories that corresponded to product revenues for the reporting period, plus the third-party royalties payable on our net sales of KALYDECO and INCIVEK. In 2014, cost of product revenues consisted primarily of third-party royalties for KALYDECO. Pursuant to our agreement with CFFT, our tiered third-party royalties on KALYDECO, and lumacaftor in combination with ivacaftor, if approved, calculated as a percentage of net sales, range from the single digits to the sub-teens. In 2015, we expect our cost of product revenues to increase as compared to 2014 due to increased net product revenues, together with an increase in the third-party royalty rate payable to CFFT as we begin to pay royalties at the top end of the royalty range.

Cost of product revenues in 2013 and 2012 included an aggregate of \$10.4 million and \$133.2 million, respectively, in write-offs for excess and obsolete inventories.

Our cost of product revenues decreased in 2014 compared to 2013 as a result of decreased product revenues and the charges incurred in 2013 for excess and obsolete INCIVEK inventories and a \$9.3 million commercial milestone payment to CFFT that was reflected in cost of product revenues in 2013. Our cost of product revenues decreased in 2013 compared to 2012 due to decreased product revenues and the charges incurred for excess and obsolete INCIVEK inventories that we incurred in 2012.

Royalty Expenses

Royalty expenses include third-party royalties payable upon net sales of telaprevir by our collaborators and royalty expenses related to a subroyalty payable to a third party on net sales of an HIV protease inhibitor sold by GlaxoSmithKline. Royalty expenses in 2014 decreased by \$20.0 million, or 49%, as compared to 2013 as a result of decreased INCIVO sales by Janssen NV. Royalty expenses in 2013 decreased slightly compared to 2012. Our royalty expenses in future periods will be dependent on our collaborators' net sales of telaprevir in their territories. Our royalty expenses with respect to telaprevir and the HIV protease inhibitor are offset by corresponding royalty revenues.

Research and Development Expenses

				2014/2013 Comparison		2013/2012 Comparison	
	2014	2013	2012	Increase/(Decrease)		Increase/(Decrease)	
	(in thousands)			\$	%	\$	%
				(in thousands, except percentages)			
Research expenses	\$ 257,483	\$ 233,651	\$ 213,550	\$ 23,832	10%	\$ 20,101	9%
Development expenses	598,023	648,446	552,355	(50,423)	(8)%	96,091	17%
Total research and development expenses	\$ 855,506	\$ 882,097	\$ 765,905	\$ (26,591)	(3)%	\$ 116,192	15%

Our research and development expenses include internal and external costs incurred for research and development of our drugs and drug candidates. We do not assign our internal costs, such as salary and benefits, stock-based compensation expense, laboratory supplies and other direct expenses and infrastructure costs, to individual drugs or 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 allocate by individual program. All research and development costs for our drugs and drug candidates are expensed as incurred.

Over the past three years, we have incurred \$2.5 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 of 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.

In 2013 and 2014, costs related to our CF programs represented the largest portion of our development costs. In 2012, our HCV programs represented the largest portion of our development costs. Additionally, any estimates regarding development and regulatory timelines for our drug candidates are highly subjective and subject to change. In November 2014, we submitted an NDA to the FDA and an MAA to the EMA for lumacaftor in combination with ivacaftor. The target date for the FDA to complete its review of the NDA under PDUFA is July 5, 2015. Accordingly, if we obtain approval on a timely basis, we expect to begin recognizing net product revenues from lumacaftor in combination with ivacaftor in the United States in mid-2015. We do not expect significant net product revenues from lumacaftor in combination with ivacaftor in 2015 from ex-U.S. markets due to the reimbursement discussions that will be required in these markets following the potential approval of the combination in the fourth quarter of 2015. We cannot make a meaningful estimate when, if ever, our other clinical development programs will generate revenues and cash flows.

Research Expenses

	2014	2013	2012	2014/2013 Comparison		2013/2012 Comparison		
				Increase/(Decrease)		Increase/(Decrease)		
				\$	%	\$	%	
	(in thousands)			(in thousands, except percentages)				
Research Expenses:								
Salary and benefits	\$ 82,975	\$ 80,957	\$ 72,811	\$ 2,018	2 %	\$ 8,146	11 %	
Stock-based compensation expense	40,531	27,426	24,914	13,105	48 %	2,512	10 %	
Laboratory supplies and other direct expenses	38,082	35,981	31,365	2,101	6 %	4,616	15 %	
Outsourced services	17,401	20,169	13,983	(2,768)	(14)%	6,186	44 %	
Infrastructure costs	78,494	69,118	70,477	9,376	14 %	(1,359)	(2)%	
Total research expenses	\$ 257,483	\$ 233,651	\$ 213,550	\$ 23,832	10 %	\$ 20,101	9 %	

Over the past three years we have maintained a substantial investment in research activities resulting in a 10% increase in research expenses in 2014 as compared to 2013 and a 9% increase in research expenses in 2013 as compared to 2012 . We expect to continue to invest in our research programs with a focus on identifying drug candidates for specialty markets.

Development Expenses

	2014	2013	2012	2014/2013 Comparison		2013/2012 Comparison		
				Increase/(Decrease)		Increase/(Decrease)		
				\$	%	\$	%	
	(in thousands)			(in thousands, except percentages)				
Development Expenses:								
Salary and benefits	\$ 161,718	\$ 167,945	\$ 146,250	\$ (6,227)	(4)%	\$ 21,695	15%	
Stock-based compensation expense	76,467	53,757	46,329	22,710	42 %	7,428	16%	
Laboratory supplies and other direct expenses	34,689	38,526	33,530	(3,837)	(10)%	4,996	15%	
Outsourced services	197,743	238,906	203,600	(41,163)	(17)%	35,306	17%	
Drug supply costs	10,026	38,767	14,044	(28,741)	(74)%	24,723	176%	
Infrastructure costs	117,380	110,545	108,602	6,835	6 %	1,943	2%	
Total development expenses	\$ 598,023	\$ 648,446	\$ 552,355	\$ (50,423)	(8)%	\$ 96,091	17%	

Our development expenses decreased by \$50.4 million , or 8% , in 2014 as compared to 2013 and increased by \$96.1 million , or 17% , in 2013 as compared to 2012 . The decrease in 2014 compared to 2013 was principally due to decreased outsourced services expenses and drug supply costs, partially offset by increased stock-based compensation expense. The significant decrease in outsourced services expenses in 2014 was largely attributable to decreased clinical trial expenses resulting from the completion of the TRAFFIC and TRANSPORT clinical trials in the first half of 2014. We expect our development expenses for outsourced activities to increase in 2015 as compared to 2014 due to activities related to clinical trials, including the Phase 3 clinical development program for VX-661 in combination with ivacaftor.

The increased development expenses in 2013 in comparison to 2012 were principally due to the expansion of clinical development programs in CF, including the conduct of the Phase 3 program for the combination of lumacaftor and ivacaftor, and increased drug supply costs primarily related to lumacaftor.

Sales, General and Administrative Expenses

				2014/2013 Comparison		2013/2012 Comparison	
	2014	2013	2012	Increase/(Decrease)		Increase/(Decrease)	
	(in thousands)			\$	%	\$	%
Sales, general and administrative expenses	\$ 305,409	\$ 356,188	\$ 432,681	\$ (50,779)	(14)%	\$ (76,493)	(18)%

Sales, general and administrative expenses decreased by 14% in 2014 compared to 2013, primarily due to decreased headcount following our October 2013 restructuring activities. Sales, general and administrative expenses decreased by 18% in 2013 compared to 2012, primarily due to decreased INCIVEK commercial expenses and our October 2013 restructuring activities, partially offset by increased KALYDECO commercial expenses.

Restructuring Expense

In 2014, 2013 and 2012, we recorded restructuring expenses of \$50.9 million, \$40.5 million and \$1.8 million, respectively. Our restructuring expenses in 2014 primarily related to the relocation of our corporate headquarters in Massachusetts to Boston from Cambridge. Our restructuring expenses in 2013 primarily related to our October 2013 reduction in headcount. As of December 31, 2014, our accrued restructuring liability related to our lease obligations in Cambridge was \$45.0 million. These lease obligations primarily expire on December 31, 2015 and April 30, 2018.

Intangible Asset Impairment Charges

In 2013, we recorded a \$412.9 million impairment charge related to VX-222, a non-nucleoside HCV polymerase inhibitor. In connection with this impairment charge, we recorded a credit of \$127.6 million in our provision for income taxes, resulting in a net effect on net loss attributable to Vertex related to this impairment charge of \$285.3 million in 2013. There were no corresponding intangible asset impairment charges recorded related to continuing operations in 2014 or 2012.

In 2013, we recorded a \$250.6 million impairment charge related to the Alios HCV nucleotide analogue program and a benefit for income taxes of \$102.1 million that is included in loss from discontinued operations attributable to noncontrolling interest for 2013.

Other Items, Net

Interest Expense, Net

In 2014, 2013 and 2012, interest expense, net was \$72.9 million, \$22.9 million and \$15.0 million, respectively. The increase in interest expense in 2014 compared to 2013 was primarily due to interest expense of \$60.2 million associated with the leases for our corporate headquarters and interest expense of \$10.4 million related to the \$300.0 million we borrowed in July 2014 pursuant to our credit agreement. The increase in interest expense, net in 2013 compared to 2012 was primarily due to interest expense associated with the leases for our corporate headquarters commencing in the fourth quarter of 2013.

Other Income (Expense), Net

In 2014, net other income was \$30.4 million primarily due to a credit of \$36.7 million related to a one-time cash payment we received in 2014 from our landlord pursuant to leases for our corporate headquarters. In 2013, we recorded net other income of \$6.9 million primarily related to foreign exchange gains. In 2012, our net other income was not significant.

Income Taxes

In 2014, we recorded a provision for income taxes of \$7.0 million. In 2013, we recorded a benefit from income taxes of \$122.4 million. This benefit from income taxes was primarily due to a benefit of \$127.6 million related to our impairment charge for the VX-222 intangible asset. In 2012, our benefit from income taxes was not significant.

Discontinued Operations

As of September 30, 2014, we concluded that we no longer had significant continuing involvement with Alios, a variable interest entity that we consolidated from June 2011 through December 2013. As a result, the effect of the Alios collaboration is presented as discontinued operations in our consolidated statements of operations.

In 2014, we recorded a loss from discontinued operations attributable to Vertex of \$0.9 million. In 2013, we recorded income from discontinued operations of \$58.6 million and in 2012 we recorded a loss from discontinued operations of \$139.3 million. Our income (losses) from discontinued operations in these periods related to gains and losses due to the deconsolidation of Alios, an intangible asset impairment charge, a benefit from income taxes related to this charge and changes in the fair value of contingent consideration we estimated Alios would receive under the collaboration agreement. For additional information regarding the Alios collaboration please refer to “Critical Accounting Policies and Estimates - Collaborations; Variable Interest Entities.”

LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2014, we had cash, cash equivalents and marketable securities of approximately \$1.39 billion, which represented a decrease of \$78.0 million from approximately \$1.47 billion as of December 31, 2013. This decrease was due to cash expenditures we made during 2014 related to, among other things, research and development expenses and sales, general and administrative expenses and \$132.9 million for capital expenditures, largely offset by cash receipts from product sales, \$300.0 million we borrowed pursuant to a credit agreement we entered into in the third quarter of 2014, \$274.6 million in cash we received from issuances of common stock pursuant to employee benefit plans, the payments of \$35.0 million that we received from Janssen Inc. and a one-time cash payment of \$36.7 million from our landlord pursuant to the terms of the leases for our corporate headquarters. We expect to continue to incur losses on a quarterly basis until we can substantially increase revenues as a result of potential future regulatory approvals, the timing of which are uncertain.

Sources of Liquidity

We intend to rely on our existing cash, cash equivalents and marketable securities together with cash flows from product sales as our primary source of liquidity. Our cash flows from product sales have decreased on an annual basis during each of the past two years. In the near-term, we expect cash flows from sales of KALYDECO to increase as we continue to increase the number of patients that are treated with KALYDECO. If we obtain approval on a timely basis, we expect to begin recognizing net product revenues from lumacaftor in combination with ivacaftor in the United States in mid-2015. We do not expect significant net product revenues from lumacaftor in combination with ivacaftor in 2015 from ex-U.S. markets due to the reimbursement discussions that will be required in these markets following the potential approval of the combination in the fourth quarter of 2015.

We have borrowed \$300.0 million under a credit agreement that we entered into in the third quarter of 2014 and, subject to certain conditions, we may request up to an additional \$200.0 million pursuant to that credit agreement. In recent periods, we also have received significant proceeds from the issuance of common stock under our employee benefit plans, but the amount and timing of future proceeds from employee benefits plans is uncertain. Other possible sources of liquidity include strategic collaborative agreements that include research and/or development funding, commercial debt, public and private offerings of our equity and debt securities, development milestones and royalties on sales of products, software and equipment leases, strategic sales of assets or businesses and financial transactions. Negative covenants in our credit agreement may prohibit or limit our ability to access these sources of liquidity.

Future Capital Requirements

We incur substantial operating expenses to conduct research and development activities and operate our organization. In addition, we must repay the principal amount on the \$300.0 million we borrowed in the third quarter of 2014 as follows: \$15.0 million in the second half of 2015, \$105.0 million in 2016 and \$180.0 million in 2017. We also have substantial facility and capital lease obligations, including leases for two buildings in Boston, Massachusetts that continue through 2028. We expect that cash flows from KALYDECO together with our current cash, cash equivalents and marketable securities will be sufficient to fund our operations for at least the next twelve months. The adequacy of our available funds to meet our future operating and capital requirements will depend on many factors, including the amounts of future revenues generated by KALYDECO, potential revenues from lumacaftor in combination with ivacaftor, and the potential introduction of one or

more of our other drug candidates to the market, and the number, breadth, cost and prospects of our research and development programs.

Financing Strategy

In the third quarter of 2014, we borrowed \$300.0 million pursuant to a credit agreement. In addition, subject to certain conditions, we may request that the lenders loan us up to an additional \$200.0 million under the credit agreement. 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. In addition, we may raise additional capital through securing new collaborative agreements or other methods of financing. 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. Negative covenants in our credit agreement may prohibit or limit our ability to obtain future financing and there can be no assurance that any such financing opportunities will be available on acceptable terms, if at all.

CONTRACTUAL COMMITMENTS AND OBLIGATIONS

The following table sets forth our commitments and obligations as of December 31, 2014 :

	Payments Due by Period				
	2015	2016-2017	2018-2019	2020 and later	Total
	(in thousands)				
Fan Pier Leases	\$ 67,206	\$ 134,412	\$ 139,795	\$ 680,209	\$ 1,021,622
Facility operating leases, excluding Fan Pier Leases	48,589	65,503	28,538	78,612	221,242
Capital lease obligations	20,792	27,383	16,074	—	64,249
Senior secured term loan	36,600	305,518	—	—	342,118
Research, development and drug supply costs	20,717	—	—	—	20,717
Other	7,589	3,484	—	6,591	17,664
Total contractual commitments and obligations	\$ 201,493	\$ 536,300	\$ 184,407	\$ 765,412	\$ 1,687,612

Leases

We lease two buildings that are located at Fan Pier in Boston, Massachusetts. We commenced lease payments on these two buildings in December 2013 and the initial lease periods end in December 2028.

Our future minimum commitments under our Kendall Square lease are included in “Facility operating leases, excluding Fan Pier Leases.” We have entered into three subleases for a portion of the 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 \$11.4 million for 2015 , \$30.7 million for 2016 and 2017 and \$5.1 million for 2018 , including amounts related to a sublease executed in February 2015. These amounts are not offset against our obligations set forth in the table above.

The table also reflects leases of equipment, leasehold improvements and software licenses that are accounted for as capital leases.

Senior Secured Term Loan

In July 2014, we entered into a credit agreement with the lenders party thereto, and Macquarie US Trading LLC, or Macquarie, as administrative agent. The credit agreement provides for a \$300.0 million senior secured term loan. The interest rate under the term loan is subject to adjustment and the table above assumes a mid-2015 approval of lumacaftor in combination with ivacaftor. The Company includes estimates for interest in “Senior secured term loan”, which are equivalent to management’s expectations for the probable outcome of variable interest rates that are dependent on various future events and market interest rates.

Research, Development and Drug Supply Costs

“Research, development and drug supply costs,” does not include certain payments we are obligated to make to clinical research organizations, or CROs because these contracts are cancelable, at our option, with notice. However, we historically have not cancelled such contracts. As of December 31, 2014 , we had accrued \$22.4 million related to these contracts for

costs incurred for services provided through December 31, 2014 , and we have approximately \$96.9 million in cancelable future commitments based on existing contracts as of December 31, 2014 . These amounts reflect planned expenditures based on existing contracts and do not reflect any future modifications to, or terminations of, existing contracts or anticipated or potential new contracts.

Collaborative Arrangements

We have entered into certain research and development collaboration agreements with third parties that include the funding of certain development, manufacturing and commercialization efforts with the potential for future milestone and royalty payments by us upon the achievement of pre-established developmental, regulatory and/or commercial targets. Our obligation to fund these efforts is contingent upon continued involvement in the programs and/or the lack of any adverse events that could cause the discontinuance of the programs. Pursuant to our collaboration with BioAxone, BioAxone has the potential to receive up to \$90.0 million including a license continuation fee and development and regulatory milestone payments; and commercial milestone payments as well as royalties on future product sales, if any. We also have royalty and milestone obligations to the CFFT. Contingent payments under these agreements become due and payable only upon achievement of certain milestones and are not included in the contractual obligations table above.

Tax-related Obligations

We exclude liabilities pertaining to uncertain tax positions from our summary of contractual obligations as we cannot make a reliable estimate of the period of cash settlement with the respective taxing authorities. As of December 31, 2014 , we have \$0.9 million of liabilities associated with uncertain tax positions. As of December 31, 2014 , we cannot reasonably estimate the amount we expect to pay within the next twelve months in connection with such settlements.

Other Funding Commitments

Our table detailing contractual commitments and obligations does not include severance payment obligations to certain of our executive officers in the event of a not-for-cause employment termination under existing employment contracts. We provide information regarding these obligations annually in our proxy statement for our annual meeting of shareholders.

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. The preparation of these financial statements requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reported periods. These items are monitored and analyzed by management for changes in facts and circumstances, and material changes in these estimates could occur in the future. Changes in estimates are reflected in reported results for the period in which the change occurs. We base our estimates on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from our estimates if past experience or other assumptions do not turn out to be substantially accurate.

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:

- revenue recognition;
- intangible assets;
- collaborations and variable interest entities;
- research and development accruals;
- commercial supplies and inventories;
- income taxes;
- leases; and
- restructuring expenses.

Our accounting policies, including the ones discussed below, are more fully described in the Notes to our consolidated financial statements, including Note A, "Nature of Business and Accounting Policies," included in this Annual Report on Form 10-K.

Revenue Recognition

Product Revenues, Net

We generate product revenues from sales in the United States and in international markets. We sell our products principally to a limited number of specialty pharmacy providers and selected regional wholesalers in North America as well as government-owned and supported customers in international markets, collectively, our customers. Our customers in North America subsequently resell our products to patients and health care providers. Separately, we have arrangements with numerous third-party payors in North America that provide for government-mandated and privately-negotiated rebates, chargebacks and discounts. We recognize net product revenues from sales of our products upon delivery to our customers as long as:

- there is persuasive evidence that an arrangement exists between us and our customer;
- collectability is reasonably assured; and
- the price is fixed or determinable.

In order to conclude that the price is fixed or determinable, we must be able to calculate our gross product revenues from our customers and reasonably estimate our net product revenues. Our gross product revenues are based on the fixed price for our products that we charge our customers. We estimate our net product revenues by deducting from our gross product revenues (i) trade allowances, such as invoice discounts for prompt payment and customer fees, (ii) estimated government and private payor rebates, chargebacks and discounts, (iii) estimated reserves for expected product returns and (iv) estimated costs of incentives offered to certain indirect customers, including patients. We make significant estimates and judgments that materially affect our recognition of net product revenues. Changes in our estimates of net product revenues could have a material effect on net product revenues recorded in the period in which we determine that change occurs.

In certain instances, we may be unable to reasonably conclude that the price is fixed or determinable at the time of delivery, in which case we defer the recognition of revenues. Once we are able to determine that the price is fixed or determinable, we recognize the revenues associated with the units in which revenue recognition was deferred.

The value of the rebates, chargebacks and discounts provided to third-party payors per course of treatment vary significantly and are based on government-mandated discounts and our arrangements with other third-party payors. Typically, government-mandated discounts in the United States and Canada are significantly larger than discounts provided to other third-party payors in those countries. In order to estimate our total rebates, chargebacks and discounts, we estimate the percentage of prescriptions that will be covered by each third-party payor, which is referred to as the payor mix. We track available information regarding changes, if any, to the payor mix for our products, to our contractual terms with third-party payors and to applicable governmental programs and regulations and levels of our products in the distribution channel. We adjust our estimated rebates, chargebacks and discounts based on new information, including information regarding actual rebates, chargebacks and discounts for our products, as it becomes available. Claims by third-party payors for rebates, chargebacks and discounts frequently are submitted to us significantly after the related sales, potentially resulting in adjustments in the period in which the new information becomes known.

We have withdrawn INCIVEK from the market in the United States. As of December 31, 2014, we maintained a reserve of approximately \$16.2 million for government rebates for INCIVEK. There typically is no deadline by which government payors must submit claims, and as a result we expect to monitor this reserve at least through 2016. If an adjustment to this reserve is required, we expect it would be reflected as either an increase or decrease to net product revenues in the period in which the adjustment is made.

Our customers generally have the right to return unopened unprescribed packages subject to contractual limitations. To date returns have been minimal and, based on inventory levels held by our customers and our distribution model, we believe that returns of products will continue to be minimal. We track actual returns by individual production lots and will continue to monitor inventory levels in the distribution channel. If necessary, we will adjust our estimated product returns based on new information as it becomes available.

Collaborative Revenues

We recognize revenues generated 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; development and commercial milestone payments; funding of research and/or development activities; payments for services we provide through our third-party manufacturing network; and royalties on net sales of licensed products. Each of these types of payments results in collaborative revenues, except for revenues from royalties on net sales of licensed products, which are classified as royalty revenues.

For each collaborative research, development and/or commercialization agreement that results in revenues, we determine (i) whether multiple deliverables exist, (ii) whether the undelivered elements have value to the customer on a stand-alone basis, (iii) how the deliverables should be separated and (iv) how the consideration should be allocated to the deliverables. For arrangements entered into or materially modified after January 1, 2011, we allocate consideration in an arrangement using the relative selling price method based on our best estimate of selling price of deliverables if we do not have vendor-specific objective evidence or third-party evidence. As part of the accounting for these agreements, we must develop assumptions that require judgment to determine the best estimate of selling price. We utilize key assumptions to determine the best estimate of selling price, which may include patient enrollment requirements from regulatory authorities, development timelines, reimbursement rates for personnel costs, discount rates, and estimated third-party development costs.

In the fourth quarter of 2013, we amended our collaboration agreement with Janssen NV, and were required to make significant estimates regarding (i) the determination of whether or not the agreement was materially modified and (ii) the estimated selling price for the remaining telaprevir development activities. We recognized \$182.4 million of collaborative revenues pursuant to the collaboration agreement in the fourth quarter of 2013. This amount was primarily attributable to (i) the new consideration received from Janssen NV, including the \$152.0 million fourth quarter 2013 payment and the remaining deferred revenues related to the 2006 up-front payment less (ii) our best estimate of selling price for the remaining telaprevir development activities. As of December 31, 2014, the remaining deferred revenue balance related to Janssen NV was not material.

Intangible Assets

We maintain an indefinite-lived in-process research and development asset on our consolidated balance sheet until either the research and development project underlying it is completed or the asset becomes impaired. When we determine that an asset has become impaired or we abandon a project, we write down the carrying value of the related intangible asset to its fair value and take an impairment charge in the period in which the impairment occurs.

We assess the fair value of assets, including intangible assets such as in-process research and development assets, 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 require 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 net cash flows from potential drug sales, which are based on estimates of the sales price of the drug, the number of patients who will be diagnosed and treated and our competitive position in the marketplace, and appropriate discount and tax rates.

We test our 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 result in an impairment, or trigger an interim impairment assessment, include the receipt of additional clinical or nonclinical data regarding our drug candidate or a potentially competitive drug candidate, changes in the clinical development program for a drug candidate or new information regarding potential sales 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.

In 2013, we incurred intangible asset impairment charges of \$412.9 million and \$250.6 million related to continuing operations and discontinued operations, respectively, that related to drug candidates for the treatment of HCV infection. As of December 31, 2014, we had \$29.0 million of indefinite-lived intangible assets recorded on our balance sheet related to a VIE.

Collaborations; Variable Interest Entities

Our collaborations require us to apply accounting policies that involve significant judgments and that have a material effect on our consolidated financial statements. Under applicable accounting guidance, as a result of the relationships established through collaboration agreements, our collaborators may be deemed to be variable interest entities, or VIEs, our licenses may result in a variable interest in collaborators as a whole and our being the primary beneficiary of VIEs. As a result, we are required to consolidate VIEs financial statements into our financial statements for the period during which we have a variable interest in the VIE and are the VIE's primary beneficiary, and if we later determine that we no longer have a variable interest or are no longer the primary beneficiary we are required to deconsolidate the VIE. In addition, if we determine that we no longer have significant continuing involvement with a VIE, its operations and direct expenses incurred by us are reflected in our discontinued operations presentation.

We believe that the following effects of the consolidation and deconsolidation of VIEs on our consolidated financial statements are the most significant:

- Beginning in the fourth quarter of 2014, we are consolidating all of BioAxone's expenses and revenues into our consolidated statements of operations, eliminating all intercompany balances and transactions. As of December 31, 2014, our consolidated balance sheet includes BioAxone's balances.
- As of September 30, 2014, we concluded that we no longer had significant continuing involvement with Alios due to our intent and ability to terminate the Alios Agreement, which we terminated during the fourth quarter of 2014; therefore, the operations of Alios, including collaboration expenses reimbursed by Vertex are presented as discontinued operations for the periods presented in these consolidated financial statements.
- In 2013, the deconsolidation of Alios resulted in a gain of \$68.2 million attributable to Vertex. The \$68.2 million gain was approximately equal to the difference between (i) losses we recorded in 2011 and 2012 based on increases in the fair value of contingent milestone payments and royalties payable by us to Alios and (ii) the aggregate of \$120.0 million in up-front and milestone payments that we made to Alios pursuant to the Alios collaboration.
- In each period, we recorded net loss (income) attributable to the Alios noncontrolling interest. This net loss (income) reflected Alios' net loss (income) for the period as adjusted for gains and losses in the fair value of the contingent milestone payments and royalties payable by us to Alios. Determining the fair value of the contingent milestone payments and royalties payable by us to Alios required us to make significant estimates regarding the probability and potential timing of achieving each of the milestones pursuant to the agreement, future potential net sales of the HCV nucleotide analogues licensed from Alios and appropriate discount and tax rates. These net losses (income) attributable to the Alios noncontrolling interest are included in loss from discontinued operations for 2012 and 2013.

Research and Development Accruals

Research and development expenses, including amounts funded through research and development collaborations, are expensed as incurred. 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, costs for drug supply, marketing expenses and infrastructure expenses 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, experience with related activities and the expected duration of the third-party service contract, where applicable.

Commercial Supplies and Inventories

We began capitalizing the costs of our KALYDECO inventories on January 1, 2012 and the costs of our lumacaftor inventories on July 1, 2014. We capitalize inventories produced in preparation for initiating sales of a drug candidate when the related drug candidate is considered to have a high likelihood of regulatory approval and the related costs are expected to be recoverable through sale of the inventories. In determining whether or not to capitalize such inventories, 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 inventories. After we begin capitalizing inventories, we

perform an assessment of the recoverability of capitalized inventory during each reporting period, and write down any excess and obsolete inventories to their net realizable value in the period in which the impairment is first identified.

In 2013 and 2012, following periodic assessments of the recoverability of our inventories, we recorded within cost of product revenues an aggregate of \$10.4 million and \$133.2 million, respectively in charges primarily related to excess and obsolete INCIVEK inventories based on our analysis of our inventory levels in relation to our commercial outlook for INCIVEK. As of December 31, 2014, all of our inventories are related to KALYDECO and lumacaftor in combination with ivacaftor. Periodic assessments of the recoverability of capitalized costs involve significant estimates and judgments on the part of management.

Income Taxes

We maintain a valuation allowance on our net operating losses and other deferred tax assets because we have an extended history of annual losses. Our U.S. federal net operating loss carryforwards totaled approximately \$3.6 billion as of December 31, 2014. On an annual basis, we reassess the valuation allowance for deferred income tax assets. After consideration of all the evidence, both positive and negative, we continue to maintain a valuation allowance on the deferred tax asset as of December 31, 2014 because it is more likely than not that the deferred tax asset will not be realized. In future periods, if we determine 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 our consolidated balance sheet and (iii) we would record non-cash benefits in our consolidated statements of operations related to the reflection of the deferred tax asset on our consolidated balance sheet.

Leases

In 2011, we entered into two leases for our corporate headquarters. Our corporate headquarters were built during the period from 2011 through December 2013. We lease our corporate headquarters pursuant to leases that expire in 2028, subject to our right to extend the leases for an additional 10 years. Because we were involved in the construction project, we were deemed for accounting purposes to be the owner of the buildings during the construction period. Accordingly, we recorded project construction costs incurred by the landlord as an asset and a related financing obligation in "Property and equipment, net" and "Construction financing lease obligation," respectively, on our consolidated balance sheets.

Upon completion of the construction of the buildings, we evaluated the leases and determined that the leases did not meet the criteria for "sale-leaseback" treatment. Accordingly, we depreciate the asset and incur interest expense related to the financing obligation recorded on our balance sheet. We bifurcate our lease payments pursuant to the leases into (i) a portion that is allocated to the buildings and (ii) a portion that is allocated to the land on which the buildings were constructed. The portion of the lease obligations allocated to the land is treated as an operating lease. In connection with the leases for our corporate headquarters, in 2015, we expect to incur approximately \$60 million in interest expense, \$13 million in depreciation expense and \$7 million in operating expenses.

Restructuring Expenses

We have adopted several plans to restructure our facility operations for which we have incurred restructuring expenses in the three years ended December 31, 2014. In particular, in 2014, we recorded \$50.9 million in costs associated with exit and disposal activities related to the relocation of our headquarters in Massachusetts from Cambridge to Boston and maintained a liability related to these activities of \$33.4 million as of December 31, 2014. Our initial estimate of our liabilities for net ongoing costs associated with these facility obligations are recorded at fair value. In estimating the expenses and liabilities related to these facilities, we utilize probability-weighted discounted cash-flows of our ongoing lease obligations. In estimating the expense and liability under our lease obligations, we estimate (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. We use a credit-adjusted risk-free rate to discount the estimated cash flows.

We review our estimates and assumptions on at least a quarterly basis. We intend to continue such reviews until the termination of these facility lease obligations and will make whatever modifications we believe are necessary, based on our best judgment, to reflect any changed circumstances. Our estimates have changed in the past, and may change in the future, resulting in additional adjustments to the estimate of these liabilities. Changes to our estimate of these liabilities are recorded as additional restructuring expenses (credits). In addition, because our estimate of these liabilities includes the application of

a discount rate to reflect the time-value of money, we record imputed interest costs related to these liabilities each quarter. These costs are included in restructuring expenses on our consolidated statements of operations.

RECENT ACCOUNTING PRONOUNCEMENTS

Refer to Note A, "Nature of Business and Accounting Policies," in the accompanying notes to the consolidated financial statements for a discussion of recent accounting pronouncements. There were no new accounting pronouncements adopted during 2014 that had a material effect on our financial statements.

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 U.S. government and its agencies, investment-grade corporate bonds and commercial paper, and money market funds. These investments are denominated in U.S. 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.

Foreign Exchange Market Risk

As a result of our foreign operations, we face exposure to movements in foreign currency exchange rates, primarily the Euro, Swiss Franc, British Pound, Australian Dollar and Canadian Dollar against the U.S. dollar. The current exposures arise primarily from cash, accounts receivable, intercompany receivables, payables and inventories. Both positive and negative affects to our net revenues from international product sales from movements in foreign currency exchange rates are partially mitigated by the natural, opposite affect that foreign currency exchange rates have on our international operating costs and expenses.

We have a foreign currency management program with the objective of reducing the impact of exchange rate fluctuations on our operating results and forecasted revenues and expenses denominated in foreign currencies. The change in fair value of these foreign currency forward contracts included in accumulated other comprehensive loss and the gross fair value of foreign currency forward assets and liabilities included on the consolidated balance sheet as of December 31, 2014 were not material.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this Item 8 is contained on pages F-1 through F-48 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, 2014. 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 (2013 framework)(COSO). Based on its assessment, the Company's management has concluded that, as of December 31, 2014, 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, 2014, there were no changes in the Company's internal control over financial reporting that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting other than the continued implementation of a new human resources software platform and the upgrade of the Company's Oracle enterprise resource planning system, together with related adjustments to the Company's systems controls, that began in the third quarter of 2014.

(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, 2014, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (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, 2014, 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, 2014 and 2013, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity and noncontrolling interest, and cash flows for each of the three years in the period ended December 31, 2014 of Vertex Pharmaceuticals Incorporated and our report dated February 13, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts

February 13, 2015

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

Portions of our definitive Proxy Statement for the 2015 Annual Meeting of Shareholders, or 2015 Proxy Statement, are incorporated by reference into this Part III of our Annual Report on Form 10-K.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information regarding directors required by this Item 10 will be included in our 2015 Proxy Statement and is incorporated herein by reference. We expect this information to be provided under “Election of Directors,” “Corporate Governance and Risk Management,” “Shareholder Proposals for the 2015 Annual Meeting and Nominations for Director,” “Section 16(a) Beneficial Ownership Reporting Compliance” and “Code of Conduct.” 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 2015 Proxy Statement and is incorporated herein by reference. We expect this information to be provided under “Compensation Committee Interlocks and Insider Participation,” “Compensation Discussion and Analysis,” “Compensation and Equity Tables,” “Director Compensation,” “Management Development and Compensation Committee Report” and/or “Corporate Governance and Risk Management.”

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 2015 Proxy Statement and is incorporated herein by reference. We expect this information to be provided under “Security Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information.”

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

The information required by this Item 13 will be included in the 2015 Proxy Statement and is incorporated herein by reference. We expect this information to be provided under “Election of Directors,” “Corporate Governance and Risk Management,” “Approval of Related Person Transactions” and “Transactions with Related Persons.”

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item 14 will be included in the 2015 Proxy Statement and is incorporated herein by reference. We expect this information to be provided under “Ratification of the Appointment of Independent Registered Public Accounting Firm.”

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:

	Page Number in this Form 10-K
Report of Independent Registered Public Accounting Firm	F-1
Consolidated Statements of Operations for the years ended December 31, 2014, 2013 and 2012	F-2
Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2014, 2013 and 2012	F-3
Consolidated Balance Sheets as of December 31, 2014 and 2013	F-4
Consolidated Statements of Shareholders' Equity and Noncontrolling Interest for the years ended December 31, 2014, 2013 and 2012	F-5
Consolidated Statements of Cash Flows for the years ended December 31, 2014, 2013 and 2012	F-6
Notes to Consolidated Financial Statements	F-7

(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
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 February 5, 2014.		8-K (Exhibit 3.1)	February 5, 2014	000-19319
4.1	Specimen stock certificate.		S-1 (Exhibit 4.1)	July 18, 1991	33-40966
Collaboration Agreements					
10.1	Research, Development and Commercialization Agreement, dated as of May 24, 2004, between Vertex Pharmaceuticals Incorporated and Cystic Fibrosis Foundation Therapeutics Incorporated.†		10-Q/A (Exhibit 10.2)	August 19, 2011	000-19319
10.2	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
10.3	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/A (Exhibit 10.6)	August 19, 2011	000-19319
10.4	Amendment No. 5 to Research, Development and Commercialization Agreement, effective as of April 1, 2011, between Vertex Pharmaceuticals Incorporated and Cystic Fibrosis Foundation Therapeutics Incorporated.†		10-Q (Exhibit 10.3)	August 9, 2011	000-19319
Leases					
10.5	Lease, dated May 5, 2011, between Fifty Northern Avenue LLC and Vertex Pharmaceuticals Incorporated.†		10-Q (Exhibit 10.4)	August 9, 2011	000-19319
10.6	Lease, dated May 5, 2011, between Eleven Fan Pier Boulevard LLC and Vertex Pharmaceuticals Incorporated.†		10-Q (Exhibit 10.5)	August 9, 2011	000-19319
10.7	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

Exhibit Number	Exhibit Description	Filed with this report	Incorporated by Reference herein from—Form or Schedule	Filing Date/ Period Covered	SEC File/ Reg. Number
Financing Agreements					
10.8	Credit Agreement, dated as of July 9, 2014, among Vertex Pharmaceuticals Incorporated, Macquarie US Trading LLC and the other lenders party thereto.		10-Q (Exhibit 10.2)	July 31, 2014	000-19319
Equity Plans					
10.9	1996 Stock and Option Plan, as amended and restated as of March 14, 2005.*		10-K (Exhibit 10.3)	March 16, 2005	000-19319
10.10	Form of Stock Option Grant under 1996 Stock and Option Plan.*		8-K (Exhibit 10.1)	February 9, 2005	000-19319
10.11	Amended and Restated 2006 Stock and Option Plan.*		10-Q (Exhibit 10.3)	August 8, 2012	000-19319
10.12	Form of Stock Option Grant under 2006 Stock and Option Plan (granted prior to July 30, 2013).*		8-K (Exhibit 10.2)	May 15, 2006	000-19319
10.13	Form of Restricted Stock Award under 2006 Stock and Option Plan (granted prior to July 30, 2013).*		8-K (Exhibit 10.3)	May 15, 2006	000-19319
10.14	Form of Restricted Stock Award (Performance Accelerated Restricted Stock) under 2006 Stock and Option Plan (granted prior to July 30, 2013).*		8-K (Exhibit 10.4)	May 15, 2006	000-19319
10.15	Form of Stock Option Grant-Performance Accelerated 2009 Stock-Options.*		10-K (Exhibit 10.33)	February 19, 2010	000-19319
10.16	2013 Stock and Option Plan, as amended .*		DEF 14A (Appendix A)	March 28, 2014	000-19319
10.17	Form of Non-Qualified Stock Option Agreement under 2013 Stock and Option Plan.*	X			
10.18	Form of Restricted Stock Agreement under 2013 Stock and Option Plan.*	X			
10.19	Form of Restricted Stock Unit Agreement under 2013 Stock and Option Plan.*	X			
10.20	Form of Non-Qualified Stock Option Agreement under Amended and Restated 2006 Stock and Option Plan (granted on or after July 30, 2013).*	X			
10.21	Form of Restricted Stock Agreement under Amended and Restated 2006 Stock and Option Plan (granted on or after July 30, 2013).*	X			
10.22	Form of Restricted Stock Unit Agreement under Amended and Restated 2006 Stock and Option Plan (granted on or after July 30, 2013).*	X			
10.23	Vertex Pharmaceuticals Incorporated Employee Stock Purchase Plan, as amended and restated.*		10-Q (Exhibit 10.4)	August 8, 2012	000-19319
Agreements with Executive Officers and Directors					
10.24	Agreement between Jeffrey M. Leiden and Vertex, dated December 14, 2011.*		10-K (Exhibit 10.34)	February 22, 2012	000-19319
10.25	First Amendment to Employment Agreement, dated December 10, 2014, by and between Vertex Pharmaceuticals Incorporated and Jeffrey M. Leiden.*		8-K (Exhibit 10.1)	December 15, 2014	000-19319
10.26	Employee Non-disclosure, Non-competition and Inventions Agreement between Jeffrey M. Leiden and Vertex, dated December 14, 2011.*		10-K (Exhibit 10.35)	February 22, 2012	000-19319
10.27	Employment Agreement, dated as of August 27, 2012, between Vertex Pharmaceuticals Incorporated and Stuart Arbuckle.*		10-Q (Exhibit 10.1)	November 6, 2012	000-19319
10.28	Change of Control Agreement, dated as of August 27, 2012, between Vertex Pharmaceuticals Incorporated and Stuart Arbuckle.*		10-Q (Exhibit 10.2)	November 6, 2012	000-19319
10.29	Employment Agreement, dated as of June 11, 2012, between Vertex Pharmaceuticals Incorporated and Kenneth L. Horton.*		10-Q (Exhibit 10.1)	August 8, 2012	000-19319
10.30	Change of Control Agreement, dated as of June 11, 2012, between Vertex Pharmaceuticals Incorporated and Kenneth L. Horton.*		10-Q (Exhibit 10.2)	August 8, 2012	000-19319
10.31	Amended and Restated Employment Agreement, dated as of November 8, 2004, between Vertex Pharmaceuticals Incorporated and Ian F. Smith.*		10-Q (Exhibit 10.13)	November 9, 2004	000-19319
10.32	Amendment No. 1 to Amended and Restated Employment Agreement between Ian F. Smith and Vertex Pharmaceuticals Incorporated, dated December 29, 2008.*		10-K (Exhibit 10.66)	February 17, 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
10.33	Form of Employee Non-Disclosure and Inventions Agreement.*		S-1 (Exhibit 10.4)	May 30, 1991	33-40966
10.34	Vertex Employee Compensation Plan.*	X			
10.35	Vertex Pharmaceuticals Non-Employee Board Compensation.*		10-K (Exhibit 10.57)	February 22, 2012	000-19319
Subsidiaries					
21.1	Subsidiaries of Vertex Pharmaceuticals Incorporated.	X			
Consent					
23.1	Consent of Independent Registered Public Accounting Firm, Ernst & Young LLP.	X			
Certifications					
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	X			
101.SCH	XBRL Taxonomy Extension Schema	X			
101.CAL	XBRL Taxonomy Extension Calculation	X			
101.LAB	XBRL Taxonomy Extension Labels	X			
101.PRE	XBRL Taxonomy Extension Presentation	X			
101.DEF	XBRL Taxonomy Extension Definition	X			

* Management contract, compensatory plan or agreement.

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

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, 2014 and 2013 , and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity and noncontrolling interest, and cash flows for each of the three years in the period ended December 31, 2014 . 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, 2014 and 2013 , and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014 , 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, 2014 , based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 13, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts

February 13, 2015

VERTEX PHARMACEUTICALS INCORPORATED

Consolidated Statements of Operations

(in thousands, except per share amounts)

	Year Ended December 31,		
	2014	2013	2012
Revenues:			
Product revenues, net	\$ 487,821	\$ 837,645	\$ 1,333,458
Royalty revenues	40,919	156,592	141,498
Collaborative revenues	51,675	217,738	52,086
Total revenues	580,415	1,211,975	1,527,042
Costs and expenses:			
Cost of product revenues	39,725	88,979	236,742
Royalty expenses	21,262	41,298	43,143
Research and development expenses	855,506	882,097	765,905
Sales, general and administrative expenses	305,409	356,188	432,681
Restructuring expenses	50,925	40,521	1,844
Intangible asset impairment charges	—	412,900	—
Total costs and expenses	1,272,827	1,821,983	1,480,315
(Loss) income from operations	(692,412)	(610,008)	46,727
Interest expense, net	(72,863)	(22,926)	(15,040)
Other income, net	30,400	6,890	309
(Loss) income from continuing operations before provision for (benefit from) income taxes	(734,875)	(626,044)	31,996
Provision for (benefit from) income taxes	6,958	(122,422)	(275)
(Loss) income from continuing operations	(741,833)	(503,622)	32,271
Loss from discontinued operations, net of tax (benefit) provision of \$0, \$(166,145) and \$39,029, respectively	(912)	(183,928)	(83,406)
Net loss	(742,745)	(687,550)	(51,135)
Loss (income) from discontinued operations attributable to noncontrolling interest	—	242,522	(55,897)
Loss attributable to noncontrolling interest	4,190	—	—
Net loss attributable to Vertex	\$ (738,555)	\$ (445,028)	\$ (107,032)
Amounts attributable to Vertex:			
(Loss) income from continuing operations	\$ (737,643)	\$ (503,622)	\$ 32,271
(Loss) income from discontinued operations	(912)	58,594	(139,303)
Net loss attributable to Vertex	\$ (738,555)	\$ (445,028)	\$ (107,032)
Amounts per share attributable to Vertex common shareholders:			
Net (loss) income from continuing operations:			
Basic	\$ (3.14)	\$ (2.24)	\$ 0.15
Diluted	\$ (3.14)	\$ (2.24)	\$ 0.15
Net income (loss) from discontinued operations:			
Basic	\$ —	\$ 0.26	\$ (0.65)
Diluted	\$ —	\$ 0.26	\$ (0.65)
Net loss:			
Basic	\$ (3.14)	\$ (1.98)	\$ (0.50)
Diluted	\$ (3.14)	\$ (1.98)	\$ (0.50)
Shares used in per share calculations:			
Basic	235,307	224,906	211,946
Diluted	235,307	224,906	215,262

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

VERTEX PHARMACEUTICALS INCORPORATED
Consolidated Statements of Comprehensive Income (Loss)
(in thousands)

	Year ended December 31,		
	2014	2013	2012
Net loss	\$ (742,745)	\$ (687,550)	\$ (51,135)
Changes in other comprehensive loss:			
Unrealized holding (losses) gains on marketable securities	(165)	(154)	305
Unrealized gains (losses) on foreign currency forward contracts	2,034	(23)	—
Foreign currency translation adjustment	(646)	421	198
Total changes in other comprehensive loss	1,223	244	503
Comprehensive loss	(741,522)	(687,306)	(50,632)
Comprehensive loss attributable to noncontrolling interest	4,190	—	—
Comprehensive loss attributable to Vertex	\$ (737,332)	\$ (687,306)	\$ (50,632)

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

VERTEX PHARMACEUTICALS INCORPORATED
Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	December 31,	
	2014	2013
Assets		
Current assets:		
Cash and cash equivalents	\$ 625,259	\$ 569,299
Marketable securities, available for sale	761,847	895,777
Accounts receivable, net	75,964	85,517
Inventories	30,848	14,147
Prepaid expenses and other current assets	52,593	23,836
Total current assets	1,546,511	1,588,576
Property and equipment, net	715,812	696,911
Intangible assets	29,000	—
Goodwill	39,915	30,992
Other assets	3,441	2,562
Total assets	\$ 2,334,679	\$ 2,319,041
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 71,194	\$ 49,327
Accrued expenses	209,676	271,077
Deferred revenues, current portion	17,468	21,510
Accrued restructuring expense, current portion	33,107	14,286
Capital lease obligations, current portion	17,806	16,893
Senior secured term loan, current portion	14,206	—
Other liabilities, current portion	4,797	24,736
Total current liabilities	368,254	397,829
Deferred revenues, excluding current portion	27,808	49,459
Accrued restructuring expense, excluding current portion	12,748	14,067
Capital lease obligations, excluding current portion	39,293	48,754
Deferred tax liability	15,044	—
Construction financing lease obligation, excluding current portion	473,073	440,937
Senior secured term loan, excluding current portion	280,569	—
Other liabilities, excluding current portion	21,707	11,590
Total liabilities	1,238,496	962,636
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, \$0.01 par value; 1,000,000 shares authorized; none issued and outstanding at December 31, 2014 and 2013	—	—
Common stock, \$0.01 par value; 300,000,000 shares authorized at December 31, 2014 and 2013; 241,764,398 and 233,788,852 shares issued and outstanding at December 31, 2014 and 2013, respectively	2,385	2,320
Additional paid-in capital	5,777,154	5,321,286
Accumulated other comprehensive income (loss)	917	(306)
Accumulated deficit	(4,705,450)	(3,966,895)
Total Vertex shareholders' equity	1,075,006	1,356,405
Noncontrolling interest	21,177	—
Total shareholders' equity	1,096,183	1,356,405
Total liabilities and shareholders' equity	\$ 2,334,679	\$ 2,319,041

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

VERTEX PHARMACEUTICALS INCORPORATED

Consolidated Statements of Shareholders' Equity and Noncontrolling Interest

(in thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Vertex Shareholders' Equity	Noncontrolling Interest	Total Shareholders' Equity	Redeemable Noncontrolling Interest
	Shares	Amount							
Balance, December 31, 2011	209,304	\$ 2,072	\$ 4,200,659	\$ (1,053)	\$ (3,414,835)	\$ 786,843	\$ 141,633	\$ 928,476	\$ 37,036
Unrealized holding gains on marketable securities				305		305		305	
Foreign currency translation adjustment				198		198		198	
Net (loss) income					(107,032)	(107,032)	55,897	(51,135)	
Issuance of common stock under benefit plans	7,983	77	201,760			201,837	155	201,992	
Stock-based compensation expense			115,058			115,058	481	115,539	
Tax benefit from equity compensation			1,971			1,971		1,971	
Change in liquidation value of noncontrolling interest							(1,494)	(1,494)	1,494
Balance, December 31, 2012	217,287	\$ 2,149	\$ 4,519,448	\$ (550)	\$ (3,521,867)	\$ 999,180	\$ 196,672	\$ 1,195,852	\$ 38,530
Unrealized holding losses on marketable securities				(154)		(154)		(154)	
Unrealized losses on foreign currency forward contracts				(23)		(23)		(23)	
Foreign currency translation adjustment				421		421		421	
Net loss					(445,028)	(445,028)	(242,522)	(687,550)	
Issuance of common stock under benefit plans	8,226	88	271,713			271,801	(63)	271,738	
Convertible senior subordinated notes (due 2015) conversion	8,276	83	402,182			402,265		402,265	
Stock-based compensation expense			127,883			127,883	468	128,351	
Restructuring expense related to benefit plans			1,312			1,312		1,312	
Tax benefit from equity compensation			(1,252)			(1,252)		(1,252)	
Noncontrolling interest upon deconsolidation							45,445	45,445	(38,530)
Balance, December 31, 2013	233,789	\$ 2,320	\$ 5,321,286	\$ (306)	\$ (3,966,895)	\$ 1,356,405	\$ —	\$ 1,356,405	\$ —
Unrealized holding losses on marketable securities				(165)		(165)		(165)	
Unrealized gains on foreign currency forward contracts				2,034		2,034		2,034	
Foreign currency translation adjustment				(646)		(646)		(646)	
Net loss					(738,555)	(738,555)	(4,190)	(742,745)	
Issuance of common stock under benefit plans	7,975	65	274,743			274,808		274,808	
Stock-based compensation expense			178,965			178,965		178,965	
Tax benefit from equity compensation			2,160			2,160		2,160	
Noncontrolling interest upon consolidation							25,367	25,367	
Balance, December 31, 2014	241,764	\$ 2,385	\$ 5,777,154	\$ 917	\$ (4,705,450)	\$ 1,075,006	\$ 21,177	\$ 1,096,183	\$ —

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,		
	2014	2013	2012
Cash flows from operating activities:			
Net loss	\$ (742,745)	\$ (687,550)	\$ (51,135)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Depreciation and amortization expense	63,257	48,365	38,191
Stock-based compensation expense	177,542	127,303	114,285
Other non-cash based compensation expense	—	5,860	10,261
Intangible asset impairment charges	—	663,500	—
Deferred income taxes	281	(285,053)	36,660
Impairment of property and equipment	1,689	7,594	—
Deconsolidation of variable interest entity	—	55,110	—
Write-downs of inventories to net realizable value	—	10,358	133,189
Excess tax benefit from share-based payment arrangements	(2,160)	1,252	(1,971)
Other non-cash items, net	—	6,742	178
Changes in operating assets and liabilities, excluding the effects of the acquisition and deconsolidation of variable interest entities:			
Accounts receivable, net	7,428	53,363	39,912
Inventories	(16,469)	7,142	(29,925)
Prepaid expenses and other assets	(15,771)	(12,061)	(23,619)
Accounts payable	25,048	(49,234)	14,892
Accrued expenses and other liabilities	(3,270)	43,725	29,232
Accrued restructuring expense	17,502	5,025	(2,985)
Deferred revenues	(25,531)	(53,011)	(39,324)
Net cash (used in) provided by operating activities	<u>(513,199)</u>	<u>(51,570)</u>	<u>267,841</u>
Cash flows from investing activities:			
Purchases of marketable securities	(1,424,172)	(2,412,418)	(1,705,829)
Sales and maturities of marketable securities	1,557,938	2,348,295	1,367,927
Payment for acquisition of variable interest entity	(10,000)	—	—
Expenditures for property and equipment	(51,201)	(51,393)	(71,140)
Decrease in restricted cash and cash equivalents	—	31,804	2,156
Decrease (increase) in restricted cash and cash equivalents (VIE)	1,638	27,884	(18,105)
(Increase) decrease in other assets	(244)	1,698	(826)
Net cash provided by (used in) investing activities	<u>73,959</u>	<u>(54,130)</u>	<u>(425,817)</u>
Cash flows from financing activities:			
Excess tax benefit from share-based payment arrangements	2,160	(1,252)	1,971
Issuances of common stock under benefit plans	274,615	265,878	191,721
Payments to redeem secured notes	—	(158)	—
Payments on capital lease obligations	(21,443)	(16,057)	(2,615)
Payments on construction financing lease obligation	(60,249)	(67,527)	(18,873)
Proceeds from senior secured term loan	294,243	—	—
Payments returned related to construction financing lease obligation	8,050	—	—
Net cash provided by financing activities	<u>497,376</u>	<u>180,884</u>	<u>172,204</u>
Effect of changes in exchange rates on cash	(2,176)	4,708	(141)
Net increase in cash and cash equivalents	55,960	79,892	14,087
Cash and cash equivalents—beginning of period	569,299	489,407	475,320
Cash and cash equivalents—end of period	<u>\$ 625,259</u>	<u>\$ 569,299</u>	<u>\$ 489,407</u>
Supplemental disclosure of cash flow information:			
Cash paid for interest	\$ 8,714	\$ 11,015	\$ 13,400
Cash paid for income taxes	\$ 1,210	\$ 2,840	\$ 9,318
Conversion of convertible senior subordinated notes (due 2015) for common stock	\$ —	\$ 399,842	\$ —

Unamortized deferred debt issuance costs exchanged	\$	—	\$	4,230	\$	—
Capitalization of construction in-process related to construction financing lease obligation	\$	25,564	\$	215,013	\$	235,594
Assets acquired under capital lease obligations	\$	9,188	\$	50,972	\$	31,101
Issuances of common stock exercises from employee benefit plans receivable	\$	637	\$	—	\$	—

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

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements

A. Nature of Business and Accounting Policies

Business

Vertex Pharmaceuticals Incorporated (“Vertex” or the “Company”) is in the business of discovering, developing, manufacturing and commercializing small molecule drugs for patients with serious diseases in specialty markets. The Company is focused on developing and commercializing therapies for the treatment of cystic fibrosis (“CF”) and advancing its research and early-stage development programs. The Company has marketed KALYDECO (ivacaftor) since it was approved in 2012 for the treatment of certain patients with CF and is seeking approval to market lumacaftor in combination with ivacaftor in order to increase the number of patients with CF who would be eligible for treatment with the Company’s drugs. In addition, in 2011, the Company obtained approval in the United States for INCIVEK (telaprevir) for the treatment of adults with genotype 1 hepatitis C virus (“HCV”) infection and actively marketed INCIVEK from 2011 through 2013. In the fourth quarter of 2013, the Company reduced its focus on marketing INCIVEK and in 2015 expects to complete the wind-down of any remaining activities related to HCV. The Company’s collaborator, Janssen Pharmaceutica NV (“Janssen NV”), has marketed telaprevir in its territories under the brand name INCIVO since 2011.

The Company’s net loss attributable to Vertex for 2014 was \$738.6 million, or \$3.14 per share. As of December 31, 2014, the Company had cash, cash equivalents and marketable securities of \$1.39 billion. The Company expects that cash flows from the sales of its products, together with the Company’s 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 revenues from KALYDECO, the dependence on obtaining approval and reimbursement of lumacaftor in combination with ivacaftor, competition, uncertainty about clinical trial outcomes and regulatory approvals, uncertainties relating to pharmaceutical pricing and reimbursement, rapid technological change, uncertain protection of proprietary technology, the need to comply with government regulations, share price volatility, dependence on collaborative relationships and potential product liability.

Basis of Presentation

The consolidated financial statements reflect the operations of (i) the Company, (ii) its wholly-owned subsidiaries and (iii) consolidated variable interest entities (VIEs). In addition, the consolidated financial statements reflect the operations of Alios BioPharma, Inc. (“Alios”), as well as direct expenses Vertex incurred as a result of the Alios Agreement, as discontinued operations. All material intercompany balances and transactions have been eliminated. The Company operates in one segment, pharmaceuticals. Please refer to Note T, “Segment Information,” for enterprise-wide disclosures regarding the Company’s revenues, major customers and long-lived assets by geographic area.

Use of Estimates

The preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (“GAAP”) 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, inventories, research and development expenses, stock-based compensation expense, restructuring expense, the fair value of intangible assets, noncontrolling interest, the consolidation of VIEs and deconsolidation of a VIE, leases and the provision for or benefit from income taxes. 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.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

Revenue Recognition

Product Revenues, Net

The Company sells its products principally to a limited number of specialty pharmacy providers and selected regional wholesalers in North America as well as government-owned and supported customers in international markets (collectively, its “Customers”). The Company’s Customers in North America subsequently resell the products to patients and health care providers. The Company recognizes net revenues from product sales upon delivery as long as (i) there is persuasive evidence that an arrangement exists between the Company and the Customer, (ii) collectibility is reasonably assured and (iii) the price is fixed or determinable.

In order to conclude that the price is fixed or determinable, the Company must be able to (i) calculate its gross product revenues from sales to Customers and (ii) reasonably estimate its net product revenues upon delivery to its Customer’s locations. The Company calculates gross product revenues based on the price that the Company charges its Customers. The Company estimates its net product revenues by deducting from its gross product revenues (a) trade allowances, such as invoice discounts for prompt payment and Customer fees, (b) estimated government and private payor rebates, chargebacks and discounts, (c) estimated reserves for expected product returns and (d) estimated costs of incentives offered to certain indirect customers, including patients.

The Company makes significant estimates and judgments that materially affect the Company’s recognition of net product revenues. In certain instances, the Company may be unable to reasonably conclude that the price is fixed or determinable at the time of delivery, in which case it defers the recognition of revenues. Once the Company is able to determine that the price is fixed or determinable, it recognizes the revenues associated with the units in which revenue recognition was deferred.

Trade Allowances: The Company generally provides invoice discounts on product sales to its Customers for prompt payment and pays fees for distribution services, such as fees for certain data that Customers provide to the Company. The payment terms for sales to Customers in the United States generally include a discount for payment within 30 days. The Company expects that, based on its experience, its Customers will earn these discounts and fees, and deducts the full amount of these discounts and fees from its gross product revenues and accounts receivable at the time such revenues are recognized.

Rebates, Chargebacks and Discounts: The Company contracts with government agencies and various private organizations (collectively, its “Third-party Payors”) so that products will be eligible for purchase by, or partial or full reimbursement from, such Third-party Payors. The Company estimates the rebates, chargebacks and discounts it will provide to Third-party Payors and deducts these estimated amounts from its gross product revenues at the time the revenues are recognized. For each product, the Company estimates the aggregate rebates, chargebacks and discounts that it will provide to Third-party Payors based upon (i) the Company’s contracts with these Third-party Payors, (ii) the government-mandated discounts applicable to government-funded programs, (iii) information obtained from the Company’s Customers regarding the payor mix for such product and (iv) historical experience.

Product Returns: The Company estimates the amount of each product that will be returned and deducts these estimated amounts from its gross revenues at the time the revenues are recognized. The Company’s Customers have the right to return unopened unprescribed packages, subject to contractual limitations. To date product returns have been minimal and, based on inventory levels held by its Customers and its distribution model, the Company believes that returns of its products will continue to be minimal.

Other Incentives: Other incentives that the Company offers include co-pay mitigation rebates provided by the Company to commercially insured patients who have coverage and who reside in states that permit co-pay mitigation programs. The Company’s co-pay mitigation programs are intended to reduce each participating patient’s portion of the financial responsibility for a product’s purchase price to a specified dollar amount. Based upon the terms of the Company’s co-pay mitigation programs, the Company estimates average co-pay mitigation amounts for each of its products in order to establish its accruals for co-pay mitigation rebates and deducts these estimated amounts from its gross product revenues at the later of the date (i) the revenues are recognized or (ii) the incentive is offered. The Company’s co-pay mitigation rebates are subject to expiration.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

The following table summarizes activity in each of the product revenue allowance and reserve categories for the three years ended December 31, 2014 :

	Trade Allowances	Rebates, Chargebacks and Discounts	Product Returns	Other Incentives	Total
	(in thousands)				
2014					
Beginning Balance	\$ 1,535	\$ 68,244	\$ 15,799	\$ 1,555	\$ 87,133
Provision related to current period sales	8,468	35,713	2,478	1,347	48,006
Adjustments related to prior period sales	(43)	329	3,056	(72)	3,270
Credits/payments made	(8,497)	(75,184)	(16,620)	(2,085)	(102,386)
Ending Balance	<u>\$ 1,463</u>	<u>\$ 29,102</u>	<u>\$ 4,713</u>	<u>\$ 745</u>	<u>\$ 36,023</u>
2013					
Beginning Balance	\$ 5,416	\$ 63,560	\$ 2,852	\$ 3,565	\$ 75,393
Provision related to current period sales	31,395	204,459	5,795	9,295	250,944
Adjustments related to prior period sales	343	4,474	15,149	(228)	19,738
Credits/payments made	(35,619)	(204,249)	(7,997)	(11,077)	(258,942)
Ending Balance	<u>\$ 1,535</u>	<u>\$ 68,244</u>	<u>\$ 15,799</u>	<u>\$ 1,555</u>	<u>\$ 87,133</u>
2012					
Beginning Balance	\$ 11,162	\$ 52,659	\$ 340	\$ 5,202	\$ 69,363
Provision related to current period sales	55,913	216,942	2,067	19,103	294,025
Adjustments related to prior period sales	29	3,883	1,498	72	5,482
Credits/payments made	(61,688)	(209,924)	(1,053)	(20,812)	(293,477)
Ending Balance	<u>\$ 5,416</u>	<u>\$ 63,560</u>	<u>\$ 2,852</u>	<u>\$ 3,565</u>	<u>\$ 75,393</u>

The Company adjusts its estimated rebates, chargebacks and discounts based on new information, including information regarding actual rebates, chargebacks and discounts for its products, as it becomes available. Claims by third-party payors for rebates, chargebacks and discounts frequently are submitted to the Company significantly after the related sales, potentially resulting in adjustments in the period in which the new information becomes known. During the fourth quarter of 2014, the Company withdrew INCIVEK from the market in the United States and maintained an accrual of \$16.2 million for government rebates for INCIVEK. If an adjustment to this reserve is required, the Company expects it would be reflected as either an increase or decrease to net product revenues in the period in which the adjustment is made. Based on the current information available to the Company, cumulative adjustments related to prior period sales represent 0.3% , 0.7% and 1.3% , respectively, of the gross product revenues that were recorded in the years ended December 31, 2013 , 2012 and 2011 , respectively.

During the fourth quarter of 2014, the Company provided notice that it would accept final returns of INCIVEK from its customers in the United States until December 31, 2014. As a result, the Company's accrual for INCIVEK returns was not significant as of December 31, 2014.

Royalty Revenues

The Company's royalty revenues on commercial sales of INCIVO (telaprevir) by Janssen NV are based on net sales of licensed products in licensed territories as provided by Janssen NV. The Company recognizes royalty revenues in the period the sales occur.

The Company has sold its rights to receive certain royalties on sales of an HIV protease inhibitor (fosamprenavir) 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 payable 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

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Notes to Consolidated Financial Statements (Continued)

the life of the license agreement pursuant to the units-of-revenue method. 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.

Collaborative Revenues

The Company recognizes revenues generated 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; development and commercial milestone payments; funding of research and/or development activities; payments for services the Company provides through its third-party manufacturing network; and royalties on net sales of licensed products. Each of these types of payments results in collaborative revenues, except for revenues from royalties on net sales of licensed products, which are classified as royalty revenues.

For each collaborative research, development and/or commercialization agreement that result in revenues, the Company determines (i) whether multiple deliverables exist, (ii) whether the undelivered elements have value to the customer on a stand-alone basis, (iii) how the deliverables should be separated and (iv) how the consideration should be allocated to the deliverables. For arrangements entered into or materially modified after January 1, 2011, the Company allocates consideration in an arrangement using the relative selling price method based on management's best estimate of selling price of deliverables if it does not have vendor-specific objective evidence or third-party evidence. As part of the accounting for these agreements, the Company must develop assumptions that require judgment to determine the best estimate of selling price. Key assumptions utilized by the Company to determine the best estimate of selling price may include forecasted revenues, patient enrollment requirements from regulatory authorities, development timelines, reimbursement rates for personnel costs, discount rates, and estimated third-party development costs.

The Company evaluates amendments to its existing arrangements to determine whether they have been materially modified. In making its determination that an arrangement has been materially modified, the Company considers whether there have been significant changes to the consideration under the arrangement, the deliverables under the arrangement, the timing of deliverables and the period of the arrangement. If the arrangement is determined to have been materially modified, the Company allocates fixed consideration under the arrangement using its best estimate of selling price to the remaining undelivered elements at the date of material modification. Any consideration remaining after the allocation is recognized as revenue.

Collaborative research, development and/or commercialization agreements entered into prior to January 1, 2011 that contained multiple elements of revenue were divided into separate units of accounting if certain criteria were met, including whether the delivered element had stand-alone value to the collaborator and whether there was objective and reliable evidence of the fair value of the undelivered obligation(s). The Company allocated consideration it received among the separate units either on the basis of each unit's fair value or using the residual method, and applied the revenue recognition criteria to each of the separate units.

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Notes to Consolidated Financial Statements (Continued)

Up-front License Fees: If the license to the Company's intellectual property was determined to have stand-alone value from the other deliverables identified in the arrangement, the Company recognized revenues from nonrefundable, up-front license fees upon delivery. If these licenses did not have stand-alone value, the Company recognized revenues from nonrefundable, up-front license fees on a straight-line basis over the contracted or estimated period of performance. The Company evaluated the period of performance each reporting period and adjusted the period of performance on a prospective basis if there were changes to be made.

Milestone Payments: At the inception of each agreement that included research and development milestone payments, the Company evaluated whether each milestone was substantive. The Company recognized revenues related to substantive milestones in full in the period in which the substantive milestone was achieved if payment was reasonably assured. If a milestone was not considered substantive, the Company recognized the applicable milestone payment over the period of performance.

Research and Development Activities/Manufacturing Services: If the Company was entitled to reimbursement from its collaborators for specified research and development expenses and/or was entitled to payments for specified manufacturing services that the Company provided through its third-party manufacturing network, the Company determined whether the research and development funding would result in collaborative revenues or an offset to research and development expenses.

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 also maintains a foreign currency hedging program which includes foreign currency forward contracts with several counterparties. The Company has not experienced any credit losses related to these financial instruments and does not believe it is exposed to any significant credit risk related to these instruments.

The Company also is subject to credit risk from its accounts receivable related to its product sales and collaborators. The Company evaluates the creditworthiness of each of its customers and has determined that all of its material customers are creditworthy. To date, the Company has not experienced significant losses with respect to the collection of its accounts receivable. The Company's receivables from Greece, Italy and Spain were not material in 2014, and the Company had no receivables from Portugal in 2014. The Company believes that its allowance for doubtful accounts was adequate at December 31, 2014. Please refer to Note T, "Segment Information," for further information.

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.

Marketable Securities

The Company's marketable securities consist of investments in government-sponsored enterprise securities, corporate debt securities and commercial paper that are classified as available-for-sale. The Company classifies marketable securities available to fund current operations as current assets on its 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. The Company's marketable securities are stated at fair value with their unrealized gains and losses included as a component of accumulated other comprehensive loss, which is a separate component of shareholders' equity, until such gains and losses are realized. The fair value of these securities is based on quoted prices for identical or similar assets.

The Company reviews investments in marketable securities for other-than-temporary impairment whenever the fair value of an investment is less than the 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

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Notes to Consolidated Financial Statements (Continued)

considers whether it has an 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. 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.

Realized gains and losses are determined using the specific identification method and are included in other income (expense), net in the consolidated statements of operations.

Accounts Receivable

The Company deducts trade allowances for prompt payment and fees for distribution services from its accounts receivable based on its experience that the Company's customers will earn these discounts and fees. The Company's estimates for its allowance for doubtful accounts, which have not been significant to date, are determined based on existing contractual payment terms and historical payment patterns.

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 on a straight-line basis. Stock-based compensation expense is determined based on the fair value of the award at the grant date, including estimated forfeitures, and is adjusted each period to reflect actual forfeitures and the outcomes of certain performance conditions.

For awards with performance conditions that accelerate vesting of the award, the Company estimates the likelihood of satisfaction of the performance conditions, which affects the period over which the expense is recognized, and recognizes the expense using the accelerated attribution model. For awards with performance conditions in which the award does not vest unless the performance condition is met, the Company recognizes expense only if the Company estimates that achievement of the performance condition is probable. If the Company concludes that vesting is probable it recognizes expense from the date it reaches this conclusion through the estimated vesting date.

Effective for equity awards granted on or after February 5, 2014, the Company provides to employees who have rendered a certain number of years' to the Company and meet certain age requirements, partial or full acceleration of vesting of these equity awards, subject to certain conditions, upon a termination of employment other than for cause. Less than 5% of the Company's employees were eligible for partial or full acceleration of any of their equity awards as of December 31, 2014. The Company recognizes stock-based compensation expense related to these awards over a service period reflecting qualified employees eligibility for partial or full acceleration of vesting.

Research and Development Expenses

The Company expenses as incurred all research and development expenses, including amounts funded by research and development collaborations. The Company capitalizes nonrefundable advance payments made by the Company for research and development activities and expenses the payments as 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; outsourced services, including clinical trial and pharmaceutical development costs; expenses associated with drug supplies that are not being capitalized; and infrastructure costs, including facilities costs and depreciation expense.

Advertising Expenses

The Company expenses the costs of advertising, including promotional expenses, as incurred. Advertising expenses, recorded in sales, general and administrative expenses, were \$16.2 million, \$19.6 million and \$58.6 million in 2014, 2013 and 2012, respectively.

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Notes to Consolidated Financial Statements (Continued)

Inventories

The Company values its inventories at the lower-of-cost or market. The Company determines the cost of its inventories, which includes amounts related to materials and manufacturing overhead, on a first-in, first-out basis. The Company performs an assessment of the recoverability of capitalized inventory during each reporting period, and writes down any excess and obsolete inventories to their realizable value in the period in which the impairment is first identified. Shipping and handling costs incurred for inventory purchases are capitalized and recorded upon sale in cost of product revenues in the consolidated statements of operations. Shipping and handling costs incurred for product shipments are recorded as incurred in cost of product revenues in the consolidated statements of operations.

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 likelihood of regulatory approval and the related costs are expected to be recoverable through sales of the inventories. In determining whether or not to capitalize such inventories, the Company evaluates, 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, the Company evaluates risks associated with manufacturing the drug candidate and the remaining shelf-life of the inventories.

Property and Equipment

Property and equipment are recorded at cost. Depreciation expense is recorded using the straight-line method over the estimated useful life of the related asset, generally seven to ten years for furniture and equipment, three to five years for computers and software, 40 years for buildings and for leasehold improvements, the useful life of the improvements or the estimated remaining life of the associated lease. 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 accumulated depreciation are eliminated from the accounts and any resulting gain or loss is reflected in the Company's consolidated statements of operations. The Company performs an assessment of the fair value of the assets if indicators of impairment are identified during a reporting period and records the assets at the lower of the net book value or the fair value of the assets.

The Company capitalizes internal costs incurred to develop software for internal use during the application development stage. The Company expenses costs related to the planning and post-implementation phases of development of software for internal use as these costs are incurred. Maintenance and enhancement costs (including costs in the post-implementation stages) are expensed as incurred, unless such costs relate to substantial upgrades and enhancements to the software resulting in added functionality, in which case the costs are capitalized. Amortization of capitalized internally developed software costs is recorded in depreciation expense over the useful life of the related asset.

The Company recorded certain construction costs incurred by a landlord as an asset and corresponding financing obligation on the Company's consolidated balance sheets as the owner of the buildings for accounting purposes.

Capital Leases

The assets and liabilities associated with capital lease agreements are recorded at the present value of the minimum lease payments at the inception of the lease agreement. The assets are amortized using the straight-line method over the estimated useful life of the related asset or the remaining life of the associated lease. Amortization of assets that the Company leases pursuant to a capital lease is included in depreciation expense. The Company performs an assessment of the fair value of the assets if indicators of impairment are identified during a reporting period and records the assets at the lower of the net book value or the fair value of the assets. Assets recorded under capital leases are recorded within "Property and equipment, net" and liabilities related to those assets are recorded within "Capital lease obligations, current portion" and "Capital lease obligations, excluding current portion" on the Company's consolidated balance sheets.

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Notes to Consolidated Financial Statements (Continued)

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.

The Company records liabilities related to uncertain tax positions by prescribing a minimum recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The Company does not believe any such uncertain tax positions currently pending will have a material adverse effect on its consolidated financial statements.

Variable Interest Entities

The Company reviews each collaboration agreement pursuant to which the Company licenses assets owned by a collaborator in order to determine whether or not the collaborator is a VIE. If the collaborator is a VIE, the Company assesses whether or not the Company is the primary beneficiary of that VIE based on a number of factors, including (i) which party has the power to direct the activities that most significantly affect the VIE's economic performance, (ii) the parties' contractual rights and responsibilities pursuant to the collaboration agreement and (iii) which party has the obligation to absorb losses or the right to receive benefits from the VIE. If the Company determines it is the primary beneficiary of a VIE at the onset of the collaboration agreement, the collaboration is treated as a business combination and the Company consolidates the financial statements of the VIE into the Company's consolidated financial statements. The Company evaluates whether it continues to be the primary beneficiary of any consolidated VIEs on a quarterly basis. If the Company determines that it is no longer the primary beneficiary of a consolidated VIE, or no longer has a variable interest in the VIE, it deconsolidates the VIE in the period that the determination is made.

Assets recorded as a result of consolidating VIEs' financial condition into the Company's consolidated balance sheet do not represent additional assets that could be used to satisfy claims against the Company's general assets. The Company records the cash and cash equivalents of consolidated VIEs, if any, as prepaid expenses and other current assets because the Company does not have control over the VIEs' cash and cash equivalents.

Business Combinations

The Company assigns the value of consideration, including contingent consideration, transferred in business combinations to the appropriate accounts on the Company's consolidated balance sheet based on their fair value as of the effective date of the transaction. If a collaboration has been treated as a business combination and there are contingent payments, increases in the fair value of the contingent payments pursuant to collaborations accounted for as business combinations result in a decrease in net income attributable to Vertex (or an increase in net loss attributable to Vertex) on a dollar-for-dollar basis. Transaction costs and any restructuring costs associated with these transactions are expensed as incurred.

Fair Value of In-process Research and Development Assets and Contingent Payments in Business Combinations

The present-value models used to estimate the fair values of research and development assets and contingent payments pursuant to collaborations incorporate significant assumptions, including: assumptions regarding the probability of obtaining marketing approval and/or achieving relevant development milestones for a drug candidate; estimates regarding the timing of and the expected costs to develop a drug candidate; estimates of future cash flows from potential product sales and/or the potential to achieve certain commercial milestones with respect to a drug candidate; and the appropriate discount and tax rates.

In-process Research and Development Assets

The Company records the fair value of in-process research and development assets as of the transaction date of a business combination. Each of these assets is accounted for as an indefinite-lived intangible asset and is maintained on the Company's consolidated balance sheet until either the project underlying it is completed or the asset becomes impaired. If

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Notes to Consolidated Financial Statements (Continued)

the asset 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 recorded in the period in which the impairment occurs. If a project is completed, the carrying value of the related intangible asset is amortized as a part of cost of product revenues over the remaining estimated life of the asset beginning in the period in which the project is completed. 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 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.

Noncontrolling Interest

The Company records noncontrolling interest, which has historically related to consolidated VIEs, on its consolidated balance sheets. Noncontrolling interest is reflected on two separate lines if the consolidated VIE has both common shareholders and preferred shareholders that are entitled to redemption rights in certain circumstances. The Company records net loss (income) attributable to noncontrolling interest on its consolidated statements of operations, reflecting the VIEs' net loss (income) for the reporting period, adjusted for changes in the fair value of contingent milestone payments and royalties payable by the Company to the consolidated VIEs, which is evaluated each reporting period.

Deconsolidation and Discontinued Operations

Upon the occurrence of certain events and on a regular basis, the Company evaluates whether it no longer has a controlling financial interest in its subsidiaries, including deemed subsidiaries such as consolidated VIEs. If the Company determines it no longer has a controlling interest, the subsidiary is deconsolidated. The Company records a gain or loss on deconsolidation based on the difference on the deconsolidation date between (i) the aggregate of (a) the fair value of any consideration received, (b) the fair value of any retained noncontrolling investment in the former subsidiary and (c) the carrying amount of any noncontrolling interest in the subsidiary being deconsolidated, less (ii) the carrying amount of the former subsidiary's assets and liabilities.

The Company assesses whether a deconsolidation is required to be presented as discontinued operations in its consolidated financial statements on the deconsolidation date. This assessment is based on whether or not (i) the operations and cash flows to the former subsidiary have been or will be eliminated from the Company's ongoing operations as a result of the deconsolidation event and (ii) the Company will have any significant continuing involvement in the operations of the former subsidiary after the deconsolidation event. If the Company determines that a deconsolidation requires presentation as a discontinued operation on the deconsolidation date, or at any point during the one year period following such date, it will present the former subsidiary as a discontinued operation in current and comparative period financial statements.

Derivative Instruments, Embedded Derivatives and Hedging Activities

The Company has entered into financial transactions involving free-standing derivative instruments and embedded derivatives in the past. 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 that is identified on the date of issuance and at the end of each quarterly period. The estimates of the fair value of the derivatives include significant assumptions regarding the estimates market participants would make in order to evaluate these derivatives.

The Company recognizes the fair value of hedging instruments that are designated and qualify as hedging instruments pursuant to GAAP, primarily foreign currency forward contracts, as either assets or liabilities on the consolidated balance sheets. Changes in the fair value of hedging instruments are recorded each period in accumulated other comprehensive loss as unrealized gains and losses until the forecasted underlying transaction occurs. Unrealized gains and losses on these foreign currency forward contracts are included in (i) "Prepaid expenses and other current assets" and (ii) "Other liabilities, current portion," respectively, on the Company's consolidated balance sheets. Realized gains and losses for the effective

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portion of such contracts are recognized in “Product revenues, net” in the consolidated statement of operations when the contract is settled with the counterparty. The Company classifies the cash flows from hedging instruments in the same category as the cash flows from the hedged items.

Certain of the Company’s hedging instruments are subject to master netting arrangements to reduce the risk arising from such transactions with its counterparties. The Company presents unrealized gains and losses on its foreign currency forward contracts on a gross basis within its consolidated balance sheets.

The Company assesses, both at inception and on an ongoing basis, whether the foreign currency forward contracts used in hedging transactions are highly effective in offsetting the changes in cash flows of the hedged items. The Company also assesses hedge ineffectiveness quarterly and, if determined to be ineffective, records the gain or loss related to the ineffective portion to earnings in “Other income (expense), net” in its consolidated statements of operations.

Restructuring Expenses

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 the initial measurement, the Company measures changes to the liability using the credit-adjusted risk-free discount rate applied in the initial period. The Company evaluates and adjusts these liabilities as appropriate for changes in circumstances at least on a quarterly basis.

Comprehensive Income (Loss)

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

Foreign Currency Translation and Transactions

The Company primarily operates with entities that have the U.S. dollar as their functional 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 loss, which is a separate component of shareholders’ equity. Included in accumulated other comprehensive loss are net unrealized losses related to foreign currency translation of \$1.0 million, \$0.3 million and \$0.7 million at December 31, 2014, 2013, and 2012, respectively. Net foreign currency exchange transaction gains or losses are included in “net loss” on the Company’s consolidated statement of operations. Net transaction losses were \$6.4 million and \$0.4 million for 2014 and 2012, respectively, and net transaction gains were \$5.1 million in 2013.

Net Income (Loss) Per Share Attributable to Vertex Common Shareholders

Basic and diluted net income (loss) per share attributable to Vertex common shareholders are presented in conformity with the two-class method required for participating securities. Under the two-class method, earnings are allocated to (i) Vertex common shares, excluding unvested restricted stock, and (ii) participating securities, based on their respective weighted-average shares outstanding for the period. Shares of unvested restricted stock granted under the Company’s Amended and Restated 2006 Stock and Option Plan have the non-forfeitable right to receive dividends on an equal basis with other outstanding common stock. As a result, these unvested shares of restricted stock are considered participating securities under the two-class method. Potentially dilutive 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) and the assumed conversion of convertible notes.

Basic net income (loss) per share attributable to Vertex common shareholders is based upon the weighted-average number of common shares outstanding during the period, excluding restricted stock that has been issued but is not yet vested. Diluted net income (loss) per share attributable to Vertex common shareholders is based upon the weighted-average number

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of common shares outstanding during the period plus additional weighted-average common equivalent shares outstanding during the period when the effect is dilutive.

The Company utilizes income (loss) from continuing operations attributable to Vertex to determine whether potentially outstanding stock options and the assumed conversion of convertible notes are dilutive.

Recent Accounting Pronouncements

In 2014, the Financial Accounting Standards Board (“FASB”) issued amended guidance applicable to revenue recognition that will be effective for the year ending December 31, 2017. Early adoption is not permitted. The new guidance applies a more principle based approach to recognizing revenue. The new guidance must be adopted using either a full retrospective approach for all periods presented or a modified retrospective approach. The Company is in the process of evaluating the new guidance and determining the expected effect on its consolidated financial statements.

In 2014, the FASB issued amended requirements for reporting discontinued operations and requires additional disclosures about discontinued operations. Under the new guidance, only disposals representing a strategic shift in operations or that have a major effect on the Company’s operations and financial results should be presented as discontinued operations. This new accounting guidance is effective for annual periods beginning after December 15, 2014 for only those operations that have not previously been reported as discontinued operations. Early adoption is permitted. The Company does not expect the new guidance to have a significant effect on its consolidated financial statements.

In 2014, the FASB issued new guidance on management’s responsibility in evaluating whether or not there is substantial doubt about a company’s ability to continue as a going concern within one year from the date the financial statements are issued each reporting period. This new accounting guidance is effective for annual periods ending after December 15, 2016. Early adoption is permitted. The Company does not expect the new guidance to have a significant effect on its consolidated financial statements.

The Company did not adopt any new accounting pronouncements during 2014 that had a material effect on its consolidated financial statements.

B. Collaborative Arrangements

Cystic Fibrosis Foundation Therapeutics Incorporated

In April 2011, the Company entered into an amendment (the “April 2011 Amendment”) to its existing collaboration agreement with Cystic Fibrosis Foundation Therapeutics Incorporated (“CFFT”) pursuant to which CFFT agreed to provide financial support for (i) development activities for VX-661, a corrector compound discovered under the collaboration, and (ii) additional research and development activities directed at discovering new corrector compounds.

Under the April 2011 Amendment, CFFT agreed to provide the Company with up to \$75.0 million in funding over approximately five years for corrector-compound research and development activities. The Company retains the right to develop and commercialize KALYDECO (ivacaftor), lumacaftor, VX-661 and any other compounds discovered during the course of the research collaboration with CFFT. The Company recognized collaborative revenues from this collaboration of \$6.5 million, \$14.3 million and \$17.0 million in 2014, 2013 and 2012, respectively.

In the original agreement, as amended prior to the April 2011 Amendment, the Company agreed to pay CFFT tiered royalties calculated as a percentage, ranging from single digits to sub-teens, of annual net sales of any approved drugs discovered during the research term that ended in 2008, including KALYDECO, lumacaftor and VX-661. The April 2011 Amendment provides for a tiered royalty in the same range on net sales of corrector compounds discovered during the research term that ended in February 2014. In each of 2012 and 2013, CFFT earned a commercial milestone payment of \$9.3 million from the Company upon achievement of certain sales levels for KALYDECO. These milestones were reflected in the Company’s cost of product revenues. There are no additional commercial milestone payments payable by the Company to CFFT related to sales levels for KALYDECO. The Company also is obligated to make up to two one-time commercial milestone payments to CFFT upon achievement of certain sales levels for corrector compounds such as lumacaftor or VX-661.

The Company began marketing KALYDECO in the United States and certain countries in the European Union in 2012 and is seeking approval to market lumacaftor in combination with ivacaftor in the United States and European Union. The

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Company has royalty obligations to CFRT for each compound commercialized pursuant to this collaboration until the expiration of patents covering that compound. The Company has patents in the United States and European Union covering the composition-of-matter of ivacaftor that expire in 2027 and 2025, respectively, subject to potential patent extensions. The Company has patent applications in the United States covering the composition-of-matter of lumacaftor that would, if granted, expire in 2026, subject to potential extension. The Company has a patent in the European Union covering the composition-of-matter of lumacaftor that expires in 2026, subject to potential extension. The collaboration also may be terminated by either party for a material breach by the other, subject to notice and cure provisions.

Janssen Pharmaceutica NV

In 2006, the Company entered into a collaboration agreement (the “Janssen HCV Agreement”) with Janssen Pharmaceutica NV (“Janssen NV”) for the development, manufacture and commercialization of telaprevir, which Janssen NV began marketing under the brand name INCIVO in certain of its territories in September 2011. Under the Janssen HCV Agreement, Janssen NV 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 specified countries in Asia, for Janssen NV) and has exclusive rights to commercialize telaprevir in its territories including Europe, South America, the Middle East, Africa and Australia. In November 2013, the Company and Janssen NV amended the collaboration agreement (the “2013 Janssen HCV Amendment”).

Janssen NV made a \$165.0 million up-front license payment to the Company in 2006. The Company amortized the up-front license payment over the Company’s estimated period of performance under the Janssen HCV Agreement through November 2013. As of November 2013, the effective date of the 2013 Janssen HCV Amendment, there was \$32.1 million remaining in deferred revenues related to this up-front license payment.

Janssen NV paid the Company a tiered royalty averaging in the mid-20% range as a percentage of net sales of INCIVO in Janssen NV’s territories through 2013. Janssen NV was, and continues to be, responsible for certain third-party royalties on net sales of INCIVO in its territories.

Pursuant to the 2013 Janssen HCV Amendment, (i) Janssen NV made a payment of \$152.0 million to the Company in the fourth quarter of 2013; (ii) Janssen NV’s obligations to pay the Company royalties on net sales of INCIVO (telaprevir) terminated after the fourth quarter of 2013; and (iii) Janssen NV received a fully-paid license to commercialize INCIVO in its territories, subject to the continued payment of certain third-party royalties on its net sales of INCIVO.

The Company determined that the 2013 Janssen HCV Amendment was a material modification to the Janssen HCV Agreement because there was a material change to the consideration and deliverables under the agreement and determined that there was one undelivered element under the Janssen HCV Agreement, as amended, which was the continuation of certain telaprevir development activities. The Company recognized \$182.4 million of collaborative revenues pursuant to the Janssen HCV Agreement in the fourth quarter of 2013. This amount was primarily attributable to (i) the residual consideration received from Janssen NV, including the \$152.0 million fourth quarter 2013 payment and the remaining deferred revenues related to the 2006 up-front payment less (ii) the best estimate of selling price for the remaining telaprevir development activities. As of December 31, 2014, the remaining deferred revenue balance related to the Janssen NV collaboration was not material. In addition to the collaborative revenues, the Company will continue to record royalty revenues and corresponding royalty expenses related to third-party royalties that Janssen NV remains responsible for based on INCIVO net sales.

The Janssen HCV Agreement will continue in effect until the expiration of Janssen NV’s third-party royalty obligations, which expire on a country-by-country basis on the later of (a) the last-to-expire patent covering INCIVO or (b) the last required payment by Janssen NV to the Company pursuant to the agreement. In the European Union, the Company has a patent covering the composition-of-matter of INCIVO that expires in 2026.

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During the three years ended December 31, 2014, the Company recognized the following revenues attributable to the Janssen HCV collaboration:

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands)		
Royalty revenues	\$ 13,481	\$ 130,724	\$ 117,592
Collaborative revenues:			
Up-front and amendment payments revenues	\$ —	\$ 190,345	\$ 12,428
Net reimbursement (payment) for telaprevir development costs	7,104	2,793	(3,507)
Reimbursement for manufacturing services	—	10,299	7,257
Total collaborative revenues attributable to the Janssen HCV collaboration	<u>\$ 7,104</u>	<u>\$ 203,437</u>	<u>\$ 16,178</u>
Total revenues attributable to the Janssen HCV collaboration	<u>\$ 20,585</u>	<u>\$ 334,161</u>	<u>\$ 133,770</u>

Mitsubishi Tanabe Pharma Corporation

The Company has a collaboration agreement with Mitsubishi Tanabe Pharma Corporation (“Mitsubishi Tanabe”) pursuant to which Mitsubishi Tanabe has a fully-paid license to manufacture and commercialize TELAVIC (the brand name under which Mitsubishi Tanabe is marketing telaprevir) in Japan and other specified countries in Asia. The Company did not recognize collaborative revenues from this collaboration in 2014 or 2013. In 2012, the Company recognized collaborative revenues from this collaboration of \$18.9 million.

Alios BioPharma, Inc.

In June 2011, the Company entered into a license and collaboration agreement (the “Alios Agreement”) with Alios, a privately-held biotechnology company. Pursuant to the Alios Agreement, the Company and Alios collaborated on the research, development and commercialization of HCV nucleotide analogues discovered by Alios through April 2014. In April 2014, Vertex and Alios amended the Alios Agreement to eliminate the Company’s obligations to conduct further development activities with respect to VX-135. The Agreement terminated in accordance with its terms in December 2014.

Under applicable accounting guidance, the Company consolidated Alios as a VIE for the period from June 13, 2011 through December 31, 2013. The Company deconsolidated Alios as of December 31, 2013 because the Company no longer had a variable interest in Alios as a whole and did not possess the power to direct the activities that most significantly affect the economic performance of Alios based on, among other factors, the decline in significance to Alios of the licensed HCV nucleotide analogue program. As a result, in the fourth quarter of 2013, the Company recorded a full impairment charge of \$250.6 million related to the HCV nucleotide analogue program and a benefit for income taxes of \$102.1 million was recorded attributable to Alios. The deconsolidation resulted in a gain of \$68.2 million recorded in loss from discontinued operations, net of tax, in the consolidated statement of operations for the year ended December 31, 2013. The gain of \$68.2 million was approximately the difference between (i) losses the Company recorded in 2011 and 2012 based on increases in the fair value of contingent milestone and royalty payments payable by the Company to Alios and (ii) the aggregate of \$120.0 million in up-front and milestone payments that the Company made to Alios pursuant to the Alios Agreement.

As of December 31, 2013, the Company determined that it continued to have significant continuing involvement with Alios due to the Alios Agreement; therefore, in 2013 the deconsolidation of Alios was not presented as discontinued operations in the Company’s consolidated financial statements. However, the Company determined that it would evaluate whether it continued to have significant continuing involvement with Alios for a period of one year from the December 31, 2013 deconsolidation date. As of September 30, 2014, the Company concluded that it no longer had significant continuing involvement with Alios due to its intent and ability to terminate the Alios Agreement; therefore, the operations of Alios, including collaboration expenses reimbursed by Vertex are presented as discontinued operations for the periods presented in these consolidated financial statements.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

Prior to the deconsolidation, the Company recorded net loss (income) attributable to noncontrolling interest on its consolidated statements of operations. A summary of Alios' net loss (income) attributable to noncontrolling interest for 2012 and 2013 is as follows:

	2013	2012
	(in thousands)	
Loss before provision for (benefit from) income taxes	\$ 283,747	\$ 20,044
Decrease (increase) in fair value of contingent milestone and royalty payments	124,920	(114,970)
Provision for (benefit from) income taxes	(166,145)	39,029
Net loss (income) attributable to noncontrolling interest (Alios)	\$ 242,522	\$ (55,897)

In 2013, the fair value of the contingent milestone payments and royalties payable by Vertex to Alios related to the in-licensed HCV nucleotide analogue program increased by \$124.9 million due to the advancement of the Company's HCV nucleotide program. As of December 31, 2013, the Company concluded that the fair value of the contingent milestone and royalty payments was zero based on, among other things, additional data regarding VX-135 and compounds being developed by other competitors.

The Company used present-value models to determine the estimated fair value of the contingent milestone and royalty payments until it deconsolidated Alios, based on assumptions regarding the probability of achieving the relevant milestones, estimates regarding the time to develop drug candidates, estimates of future product sales and the appropriate discount and tax rates. The Company based its estimate of the probability of achieving the relevant milestones on industry data for similar assets and its own experience. The discount rates used in the valuation model represented a measure of credit risk associated with settling the liability. Significant judgment was used in determining the appropriateness of these assumptions at each reporting period.

BioAxone Biosciences, Inc.

In October 2014, the Company entered into a license and collaboration agreement (the "BioAxone Agreement") with BioAxone Biosciences, Inc. ("BioAxone"), a privately-held biotechnology company. The Company has determined that BioAxone is a VIE. Accordingly, the Company consolidated BioAxone's financial statements with the Company's consolidated financial statements beginning on October 1, 2014 as a business combination. The Company paid BioAxone initial payments of \$10.0 million in the fourth quarter of 2014.

BioAxone has the potential to receive up to \$90.0 million in milestones and fees, including development, regulatory and milestone payments and a license continuation fee. In addition, BioAxone would receive royalties and commercial milestones on future net product sales, if any. On the date of the business combination, the fair value of the contingent payments payable by the Company pursuant to the BioAxone Agreement was \$26.6 million. The Company recorded an in-process research and development intangible asset of \$29.0 million for VX-210 and a corresponding deferred tax liability of \$11.3 million attributable to BioAxone. As of December 31, 2014, there were no significant changes to the amounts included in the Company's consolidated balance sheet other than \$8.4 million of cash and cash equivalents, which is included in prepaid and other current assets. Vertex has no rights to BioAxone's cash and accordingly this cash does not affect Vertex's liquidity or cash position. Noncontrolling interest was \$25.4 million as of the date of the business combination. Net loss attributable to noncontrolling interest related to BioAxone was \$4.2 million for the year ended December 31, 2014, which included a \$0.5 million increase to contingent consideration for the fourth quarter of 2014 and resulted in noncontrolling interest of \$21.2 million as of December 31, 2014.

Vertex holds an option to purchase BioAxone at a predetermined price. The option expires at the earliest of (a) the day the FDA accepts the Biologics License Application submission for VX-210, (b) the day the Company elects to continue the license instead of exercising the options to purchase BioAxone and (c) March 15, 2018, subject to the Company's option to extend this date by one year.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

Outlicense Arrangements

In the ordinary course of the Company's business, the Company has entered into various agreements pursuant to which it has outlicensed rights to certain drug candidates to third-party collaborators. Although, the Company does not consider any of these outlicense arrangements to be material, the most notable of these outlicense arrangements is described below. Pursuant to these outlicense arrangements, our collaborators become responsible for all costs related to the continued development of such drug candidates. Depending on the terms of the arrangements, the Company's collaborators may be required to make upfront payments, milestone payments upon the achievement of certain product research and development objectives and/or pay royalties on future sales, if any, of commercial products resulting from the collaboration.

Janssen Pharmaceuticals, Inc.

In June 2014, the Company entered into an agreement (the "Janssen Influenza Agreement") with Janssen Pharmaceuticals, Inc. ("Janssen Inc."), which was amended in October 2014 to clarify certain roles and responsibilities of the parties. Pursuant to the Janssen Influenza Agreement, Janssen Inc. has an exclusive worldwide license to develop and commercialize certain drug candidates for the treatment of influenza, including VX-787. The Company received a non-refundable up-front payment of \$30.0 million from Janssen Inc. in the third quarter of 2014 upon expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976. Pursuant to the amendment to the Janssen Influenza Agreement, the Company received an additional non-refundable payment of \$5.0 million in the fourth quarter of 2014 and has the potential to receive development, regulatory and commercial milestone payments as well as royalties on future product sales, if any. Janssen Inc. is responsible for costs related to the development and commercialization of the compounds. Janssen Inc. may terminate the Janssen Influenza Agreement, subject to certain exceptions, upon six months' notice.

The Company evaluated the deliverables, consisting of licenses to intellectual property and the obligation to complete certain fully-reimbursable research and development activities as directed by Janssen Inc., pursuant to the Janssen Influenza Agreement under multiple element arrangement guidance for collaborative arrangements. The Company concluded that the license has stand-alone value from the research and development activities and determined the relative selling price of these deliverables based on the Company's best estimate of selling price. The Company utilized a discounted cash flow model to determine its best estimate of selling price for the licenses to intellectual property and determined the best estimate of selling price for the research and development activities to be the estimated cost to complete the activities plus a commercially reasonable margin. The Company determined the license had stand-alone value based on the resources and know-how possessed by Janssen Inc. The Company concluded that the Janssen Influenza Agreement and the amendment to the Janssen Influenza Agreement should be accounted for as separate contracts due to the fact that the amendment did not impact the Company's obligations under the original agreement. Based on this analysis, the Company recognized \$30.0 million in collaborative revenues related to the up-front payment upon delivery of the license and \$5.0 million upon execution of the amendment. The Company recorded the reimbursement for the research and development activities of \$9.1 million as a reduction to development expense in the Company's consolidated statements of operations primarily due to the fact that Janssen Inc. directs the activities and selects the suppliers associated with these activities.

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Notes to Consolidated Financial Statements (Continued)

C. Earnings Per Share

The following table sets forth the computation of basic and diluted (loss) income from continuing operations per share attributable to Vertex common shareholders for the three years ended December 31, 2014 :

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands, except per share amounts)		
<i>Basic (loss) income from continuing operations per share attributable to Vertex common shareholder calculation:</i>			
(Loss) income from continuing operations attributable to Vertex common shareholders	\$ (737,643)	\$ (503,622)	\$ 32,271
Less: Undistributed earnings allocated to participating securities	—	—	(322)
(Loss) income from continuing operations attributable to Vertex common shareholders—basic	\$ (737,643)	\$ (503,622)	\$ 31,949
Basic weighted-average common shares outstanding	235,307	224,906	211,946
Basic (loss) income from continuing operations per common share attributable to Vertex	\$ (3.14)	\$ (2.24)	\$ 0.15
<i>Diluted (loss) income from continuing operations per share attributable to Vertex common shareholder calculation:</i>			
(Loss) income from continuing operations attributable to Vertex common shareholders	\$ (737,643)	\$ (503,622)	\$ 32,271
Less: Undistributed earnings allocated to participating securities	—	—	(317)
(Loss) income from continuing operations attributable to Vertex common shareholders—diluted	\$ (737,643)	\$ (503,622)	\$ 31,954
Basic weighted-average common shares outstanding	235,307	224,906	211,946
Effect of potentially dilutive securities:			
Stock options	—	—	3,219
Other	—	—	97
Diluted weighted-average common shares outstanding	235,307	224,906	215,262
Diluted (loss) income from continuing operations per common share attributable to Vertex	\$ (3.14)	\$ (2.24)	\$ 0.15

The Company did not include the securities described in the following table in the computation of the diluted net loss attributable to Vertex per common share calculations because the effect would have been anti-dilutive during each period:

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands)		
Stock options	12,003	15,729	16,507
Convertible senior subordinated notes	—	—	8,192
Unvested restricted stock and restricted stock units	3,091	2,165	2,253

D. Fair Value Measurements

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 the credit quality standards outlined in the Company's investment policy. This policy also limits the amount of credit exposure to any one issue or type of instrument. As of December 31, 2014, the Company's investments were in money market funds, short-term government-sponsored enterprise securities, corporate debt securities and commercial paper.

As of December 31, 2014, all of the Company's financial assets that were subject to fair value measurements were valued using observable inputs. The Company's financial assets valued based on Level 1 inputs consisted of a money market funds and government-sponsored enterprise securities. The Company's financial assets valued based on Level 2 inputs consisted of corporate debt securities and commercial paper, which consisted of investments in highly-rated investment-grade corporations. The fair value of the Company's foreign currency forward contracts was based on Level 2 inputs using third party pricing services. During 2014, 2013 and 2012, the Company did not record an other-than-temporary impairment charge related to its

financial assets.

The following table sets forth the Company's financial assets (excluding VIE cash and cash equivalents) subject to fair value measurements:

	Fair Value Measurements as of December 31, 2014			
	Total	Fair Value Hierarchy		
		Level 1	Level 2	Level 3
(in thousands)				
Financial assets carried at fair value:				
Cash equivalents:				
Money market funds	\$ 290,531	\$ 290,531	\$ —	\$ —
Marketable securities:				
Government-sponsored enterprise securities	463,750	463,750	—	—
Commercial paper	51,746	—	51,746	—
Corporate debt securities	246,351	—	246,351	—
Prepaid and other current assets:				
Foreign currency forward contracts	2,011	—	2,011	—
Total	\$ 1,054,389	\$ 754,281	\$ 300,108	\$ —

BioAxone's cash equivalents of \$8.4 million as of December 31, 2014 consisted of money market funds, which are valued based on Level 1 inputs. The Company's noncontrolling interest includes the fair value of the contingent payments, which are valued based on Level 3 inputs. Please refer to Note B, "Collaborative Arrangements," for further information.

As of December 31, 2014, the fair value and carrying value of the Company's Term Loan was \$294.8 million, which was recorded on its consolidated balance sheet based on Level 3 inputs computed using the effective interest rate of the Term Loan. The effective interest rate considers the timing and amount of estimated future interest payments and the discount on the Term Loan. The Level 3 inputs related to the Term Loan are the amounts of the estimated future interest payments. Please refer to Note L, "Long Term Obligations," for further information regarding the Company's Term Loan.

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Notes to Consolidated Financial Statements (Continued)

E. Marketable Securities

A summary of the Company's cash, cash equivalents and marketable securities is shown below:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	(in thousands)			
December 31, 2014				
Cash and cash equivalents:				
Cash and money market funds	\$ 625,259	\$ —	\$ —	\$ 625,259
Total cash and cash equivalents	\$ 625,259	\$ —	\$ —	\$ 625,259
Marketable securities:				
Government-sponsored enterprise securities (due within 1 year)	\$ 463,788	\$ 14	\$ (52)	\$ 463,750
Commercial paper (due within 1 year)	51,674	72	—	51,746
Corporate debt securities (due within 1 year)	196,065	2	(66)	196,001
Corporate debt securities (due after 1 year through 5 years)	50,443	—	(93)	50,350
Total marketable securities	\$ 761,970	\$ 88	\$ (211)	\$ 761,847
Total cash, cash equivalents and marketable securities	\$ 1,387,229	\$ 88	\$ (211)	\$ 1,387,106
December 31, 2013				
Cash and cash equivalents:				
Cash and money market funds	\$ 569,299	\$ —	\$ —	\$ 569,299
Total cash and cash equivalents	\$ 569,299	\$ —	\$ —	\$ 569,299
Marketable securities:				
Government-sponsored enterprise securities (due within 1 year)	\$ 600,496	\$ 7	\$ (53)	\$ 600,450
Commercial paper (due within 1 year)	83,384	109	—	83,493
Corporate debt securities (due within 1 year)	189,674	14	(34)	189,654
Corporate debt securities (due after 1 year through 5 years)	22,181	6	(7)	22,180
Total marketable securities	\$ 895,735	\$ 136	\$ (94)	\$ 895,777
Total cash, cash equivalents and marketable securities	\$ 1,465,034	\$ 136	\$ (94)	\$ 1,465,076

Cash and cash equivalents of \$8.4 million related to the Company's VIE as of December 31, 2014 is recorded on the Company's consolidated balance sheet in "Prepaid expenses and other current assets," and is not included in the above table. The Company did not have any VIEs recorded in its consolidated financial statements as of December 31, 2013.

The Company has a limited number of marketable securities in insignificant loss positions as of December 31, 2014, which the Company does not intend to sell and has concluded it will not be required to sell before recovery of the amortized costs for the investment at maturity.

There were no charges recorded for other-than-temporary declines in fair value of marketable securities nor gross realized gains or losses recognized in 2014, 2013 or 2012.

F. Accumulated Other Comprehensive Loss

The following table summarizes the changes in accumulated other comprehensive loss by component:

	Foreign currency translation adjustment	Unrealized holding gains (losses) on marketable securities	Unrealized (losses) gains on foreign currency forward contracts	Total
	(in thousands)			
Balance at December 31, 2013	\$ (325)	\$ 42	\$ (23)	\$ (306)
Other comprehensive (loss) income before reclassifications	(646)	(165)	3,591	2,780
Amounts reclassified from accumulated other comprehensive loss	—	—	(1,557)	(1,557)
Net current period other comprehensive (loss) income	(646)	(165)	2,034	1,223
Balance at December 31, 2014	\$ (971)	\$ (123)	\$ 2,011	\$ 917

G. Hedging

In 2013, the Company initiated a hedging program intended to mitigate the effect of changes in exchange rates for a portion of the Company's forecasted product revenues denominated in certain foreign currencies. The program includes foreign currency forward contracts that are designated as cash flow hedges under GAAP having contractual durations from one to twelve months. To date, the existence of operational sites in markets outside the United States has generally minimized the degree to which the Company seeks to hedge its revenues in certain foreign currencies.

The Company formally documents the relationship between foreign currency forward contracts (hedging instruments) and forecasted product revenues (hedged items), as well as the Company's risk management objective and strategy for undertaking various hedging activities, which includes matching all foreign currency forward contracts that are designated as cash flow hedges to forecasted transactions. The Company also formally assesses, both at the hedge's inception and on an ongoing basis, whether the foreign currency forward contracts are highly effective in offsetting changes in cash flows of hedged items on a prospective and retrospective basis. If the Company determines that (i) a foreign currency forward contract is not highly effective as a cash flow hedge, (ii) it has ceased to be a highly effective hedge or (iii) a forecasted transaction is no longer probable of occurring, the Company would discontinue hedge accounting treatment prospectively. The Company measures effectiveness based on the change in fair value of the forward contracts and the fair value of the hypothetical foreign currency forward contracts with terms that match the critical terms of the risk being hedged. As of December 31, 2014, all hedges were determined to be highly effective and the Company has not recorded any ineffectiveness related to the hedging program.

The following table summarizes the notional amount of the Company's outstanding foreign currency forward contracts designated as cash flow hedges:

Foreign Currency	As of December 31, 2014		As of December 31, 2013	
	(in thousands)			
Euro	\$	20,209	\$	17,468
British pound sterling		13,515		—
Total foreign currency forward contracts	\$	33,724	\$	17,468

The following table summarizes the fair value of the Company's outstanding foreign currency forward contracts included on the Company's consolidated balance sheets:

	As of December 31, 2014		As of December 31, 2013	
	(in thousands)			
Fair value - assets	\$	2,011	\$	—
Fair value - liabilities		—		(23)
Net carrying value	\$	2,011	\$	(23)

H. Inventories

Inventories consisted of the following:

	As of December 31,	
	2014	2013
(in thousands)		
Raw materials	\$ 8,506	\$ 489
Work-in-process	20,508	9,981
Finished goods	1,834	3,677
Total	\$ 30,848	\$ 14,147

As of December 31, 2014, the Company has capitalized \$11.8 million of inventory costs for lumacaftor manufactured in preparation for its planned product launch in 2015 based on its evaluation of, among other factors, information regarding lumacaftor's safety and efficacy. In periods prior to July 1, 2014, the Company expensed costs associated with lumacaftor's raw materials and work-in-process as a development expense. In November 2014, the Company submitted a New Drug Application to the United States Food and Drug Administration and a Marketing Authorization Application to the European Medicines Agency for lumacaftor in combination with ivacaftor. The FDA has granted the Company priority review of the NDA and the European Committee for Medicinal Products for Human Use has granted the Company's request for Accelerated Assessment of the MAA. The target date for the FDA to complete its review of the NDA for the combination under the Prescription Drug User Fee Act, or PDUFA, is July 5, 2015. The Company plans to continue to monitor the status of these regulatory processes and the other factors used to determine whether or not to capitalize the lumacaftor inventory and, if there are significant negative developments regarding lumacaftor in combination with ivacaftor, the Company could be required to impair previously capitalized costs.

In 2013, the Company recorded within cost of product revenues \$10.4 million of write-offs for excess and obsolete inventories. In 2012, the Company recorded within cost of product revenues \$133.2 million of write-offs for excess and obsolete INCIVEK inventories related to declining sales. The write-offs for excess and obsolete inventories of \$10.4 million and \$133.2 million in 2013 and 2012, respectively, affected the net loss attributable to Vertex per share, net of tax, by \$0.05 and \$0.61 in 2013 and 2012, respectively. The Company did not record any write-offs for excess and obsolete

inventories during the year ended December 31, 2014 .

I. Property and Equipment

Property and equipment, net consisted of the following:

	As of December 31,	
	2014	2013
	(in thousands)	
Buildings	\$ 531,642	\$ 506,056
Furniture and equipment	202,846	190,555
Software	113,875	102,520
Leasehold improvements	99,942	163,019
Computers	45,893	43,096
Total property and equipment, gross	994,198	1,005,246
Less: accumulated depreciation	(278,386)	(308,335)
Total property and equipment, net	\$ 715,812	\$ 696,911

Total property and equipment, gross, as of December 31, 2014 and 2013 , included \$85.6 million and \$76.4 million , respectively, for property and equipment recorded under capital leases. Accumulated depreciation, as of December 31, 2014 and 2013 , included \$13.1 million and \$3.8 million , respectively, for property and equipment recorded under capital leases.

Included in property and equipment, net as of December 31, 2014 were \$11.2 million and \$1.2 million in capitalized internally developed software costs and related amortization, respectively. Included in property and equipment, net as of

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

December 31, 2013 were \$5.5 million and \$0.5 million in capitalized internally developed software costs and related amortization, respectively.

The Company recorded depreciation expense of \$62.3 million, \$47.3 million and \$35.7 million in 2014, 2013 and 2012, respectively.

In 2014, in connection with the relocation of the Company's headquarters in Massachusetts from Cambridge to Boston, the Company wrote off certain leasehold improvements that were fully depreciated and no longer utilized. There was no effect on the Company's net property and equipment at the time of the write off because the Company had previously adjusted the useful lives of these assets to coincide with its relocation when it concluded that the relocation was probable.

J. Intangible Assets and Goodwill

Intangible Assets

As of December 31, 2014, the Company had \$29.0 million of intangible assets recorded on its consolidated balance sheet related to the consolidation of a VIE, BioAxone.

BioAxone Collaboration

In October 2014, the Company recorded \$29.0 million of an in-process research and development intangible asset on its consolidated balance sheet based on the Company's estimate of the fair value of VX-210, a drug candidate for patients with spinal cord injuries that is licensed from BioAxone by the Company. The Company used a 7.5% discount rate in the present-value models used to estimate the fair value of the in-process research and development asset. The Company also conducted an evaluation of BioAxone's other programs and determined that market participants would not have ascribed value to those assets because of the stage of development of those assets.

ViroChem Acquisition

In 2013, the Company determined that there were indicators that the value of the VX-222 intangible asset acquired from ViroChem in 2010 of \$412.9 million reflected on its consolidated balance sheet had become impaired. The Company evaluated the fair value of VX-222 from the perspective of a market participant and based on this analysis determined that the fair value of VX-222 was zero based on, among other things, additional data regarding VX-222 and compounds being developed by other competitors. Accordingly, the Company recorded a \$412.9 million impairment charge in 2013. In connection with this impairment charge, the Company recorded a credit of \$127.6 million in its provision for income taxes. In 2013, the increase to the Company's net loss attributable to Vertex related to this impairment charge, net of the tax credit, was \$285.3 million, and the net increase to the Company's net loss per share attributable to Vertex common shareholders was \$1.27 per share.

Goodwill

As of December 31, 2014, goodwill of \$39.9 million was recorded on the Company's consolidated balance sheet. The Company allocated \$8.9 million to goodwill related to the BioAxone collaboration during the year ended December 31, 2014. None of the goodwill related to the BioAxone collaboration is expected to be deductible for income tax purposes. As of December 31, 2013, \$31.0 million was recorded on the Company's consolidated balance sheet.

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Notes to Consolidated Financial Statements (Continued)

K. Additional Balance Sheet Detail

Prepaid and other current assets consisted of the following:

	As of December 31,	
	2014	2013
	(in thousands)	
Prepaid expenses	\$ 17,569	\$ 15,353
Taxes receivable	14,093	7,959
Restricted Cash (VIE)	8,418	—
Deferred tax asset	3,500	—
Fair value foreign currency forward contracts	2,011	—
Other	7,002	524
Total	\$ 52,593	\$ 23,836

Accrued expenses consisted of the following:

	As of December 31,	
	2014	2013
	(in thousands)	
Payroll and benefits	\$ 91,175	\$ 76,785
Research, development and commercial contract costs	38,143	52,468
Product revenue allowances	34,554	85,510
Royalty payable	12,218	18,334
Taxes payable and reserves (including VIE taxes payable)	10,038	11,146
Professional fees	7,004	10,593
Interest	5,444	—
Other	11,100	16,241
Total	\$ 209,676	\$ 271,077

Other liabilities, current portion consisted of the following:

	As of December 31,	
	2014	2013
	(in thousands)	
Deferred rent	\$ 4,015	\$ 16,652
Customer deposits	—	7,692
Other	782	392
Total	\$ 4,797	\$ 24,736

L. Long Term Obligations

Fan Pier Leases

In 2011, the Company entered into two lease agreements, pursuant to which the Company leases approximately 1.1 million square feet of office and laboratory space in two buildings (the “Buildings”) at Fan Pier in Boston, Massachusetts (the “Fan Pier Leases”). The Company commenced lease payments in December 2013, and will make lease payments pursuant to the Fan Pier Leases through December 2028. The Company has an option to extend the term of the Fan Pier Leases for an additional 10 years.

Because the Company was involved in the construction project, the Company was deemed for accounting purposes to be the owner of the Buildings during the construction period and recorded project construction costs incurred by the landlord.

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

Upon completion of the Buildings, the Company evaluated the Fan Pier Leases and determined that the Fan Pier Leases did not meet the criteria for “sale-leaseback” treatment. Accordingly, the Company began depreciating the asset and incurring interest expense related to the financing obligation in 2013. The Company bifurcates its lease payments pursuant to the Fan Pier Leases into (i) a portion that is allocated to the Buildings and (ii) a portion that is allocated to the land on which the Buildings were constructed. The portion of the lease obligations allocated to the land is treated as an operating lease that commenced in 2011. In 2014, the Company recorded \$60.2 million in interest expense, \$13.4 million in depreciation expense and \$6.5 million in rent expense related to the Buildings.

Property and equipment, net, included \$515.0 million and \$503.4 million as of December 31, 2014 and 2013, respectively, related to construction costs for the Buildings. The carrying value of the construction financing lease obligation related to the Buildings, which excludes interest that will be imputed over the course of the Company’s lease agreement for the Buildings, was \$473.4 million and \$440.9 million, as of December 31, 2014 and 2013, respectively.

Term Loan

On July 9, 2014, the Company entered into a credit agreement with the lenders party thereto, and Macquarie US Trading LLC (“Macquarie”), as administrative agent. The credit agreement provides for a \$300.0 million senior secured term loan (“Term Loan”). The credit agreement also provides that, subject to satisfaction of certain conditions, the Company may request that the lenders establish an incremental senior secured term loan facility in an aggregate amount not to exceed \$200.0 million.

The Term Loan initially bears interest at a rate of 7.2% per annum but shall be reduced to 6.2% per annum on the later to occur of (i) FDA approval in the United States of a product with a label claim for treating patients with cystic fibrosis 12 years of age and older who are homozygous with the F508del mutation (“FDA Approval”), and (ii) the one year anniversary of the closing, in each case, until the second anniversary of the closing. On and after the second anniversary of the closing, the Term Loan will bear interest at a rate per annum equal to LIBOR plus 5.0% to 7.5% depending on the receipt of FDA Approval.

The maturity date of all loans under the facilities is July 9, 2017. Interest is payable quarterly and on the maturity date. The Company is required to repay principal on the Term Loan in installments of \$15.0 million per quarter from October 1, 2015 through July 1, 2016 and in installments of \$60.0 million per quarter from October 1, 2016 through the maturity date. The Company may prepay the Term Loan, in whole or in part, at any time; provided that prepayments prior to the second anniversary of the closing are subject to a make-whole premium to ensure Macquarie receives approximately the present value of two years of interest payments over the life of the loan.

The Company’s obligations under the Term Loan are unconditionally guaranteed by certain of its domestic subsidiaries. All obligations under the Term Loan, and the guarantees of those obligations, are secured, subject to certain exceptions, by substantially all of the Company’s assets and the assets of all guarantors, including the pledge of all or a portion of the equity interests of certain of its subsidiaries.

The credit agreement requires that the Company maintain, on a quarterly basis, a minimum level of KALYDECO net revenues. Further, the credit agreement includes negative covenants, subject to exceptions, restricting or limiting the Company’s ability and the ability of its subsidiaries to, among other things, incur additional indebtedness, grant liens, engage in certain investment, acquisition and disposition transactions, pay dividends, repurchase capital stock and enter into transactions with affiliates. The credit agreement also contains customary representations and warranties, affirmative covenants and events of default, including payment defaults, breach of representations and warranties, covenant defaults and cross defaults. If an event of default occurs, the administrative agent would be entitled to take various actions, including the acceleration of amounts due under outstanding loans. There have been no events of default as of or during the period ended December 31, 2014.

Based on the Company’s evaluation of the Term Loan, the Company determined that the Term Loan contains several embedded derivatives. These embedded derivatives are clearly and closely related to the host instrument because they relate to the Company’s credit risk; therefore, they do not require bifurcation from the host instrument, the Term Loan.

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Notes to Consolidated Financial Statements (Continued)

The Company incurred \$5.3 million in fees paid to Macquarie that were recorded as a discount on the Term Loan and that are being recorded as additional interest expense using the effective interest method over the term of the loan in the Company's consolidated statements of operations. As of December 31, 2014, the unamortized discount associated with the Term Loan that was embedded in the senior secured term loan caption on the Company's consolidated balance sheet was \$5.2 million .

Convertible Senior Subordinated Notes

In September 2010, the Company completed an offering of \$400.0 million in aggregate principal amount of 3.35% convertible senior subordinated notes due 2015 Notes (the "2015 Notes"). This offering resulted in \$391.6 million of net proceeds to the Company. The underwriting discount and other expenses of \$8.4 million were recorded as debt issuance costs and were included in other assets on the Company's consolidated balance sheets. The 2015 Notes bore interest at the rate of 3.35% per annum, and the Company was 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.

The 2015 Notes were 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. If the closing price of the Company's common stock exceeded 130% of the conversion price for at least 20 trading days within a period of 30 consecutive trading days, the Company had the right to redeem the 2015 Notes at its option at a redemption price equal to 100% of the principal amount of the 2015 Notes to be redeemed.

In the second quarter of 2013, the Company's common stock exceeded 130% of the conversion price of the 2015 Notes for at least 20 trading days within a period of 30 consecutive trading days, and the Company notified the holders of the 2015 Notes that it would redeem the 2015 Notes on June 17, 2013. In response to the Company's call of the 2015 Notes for redemption, in accordance with the provisions of the 2015 Notes, the holders of \$399.8 million in aggregate principal amount of 2015 Notes elected to convert their 2015 Notes into the Company's common stock at the conversion price of approximately \$48.83 per share. As a result of these conversions, the Company issued 8,188,448 shares of common stock. The remaining \$0.2 million in aggregate principal amount of 2015 Notes was redeemed on June 17, 2013.

Pursuant to the terms of the 2015 Notes, the Company made an additional payment of \$16.75 per \$1,000 principal amount, payable in shares of the Company's common stock, to the holders of the 2015 Notes that converted or redeemed their 2015 Notes after the Company called the 2015 Notes for redemption. These payments resulted in the issuance of an additional 87,109 shares of the Company's common stock. In the second quarter of 2013, the Company recognized an aggregate of \$6.7 million in interest expense related to the 2015 Notes. Unamortized debt issuance costs for the 2015 Notes of \$4.2 million were recorded as an offset to additional paid-in capital.

M. Common Stock, Preferred Stock and Equity Plans

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 Company's 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.

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, 2014 and 2013 , the Company had no shares of preferred stock issued or outstanding.

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

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Notes to Consolidated Financial Statements (Continued)

(“NSOs”), restricted stock (“RSs”), restricted stock units (“RSUs”) or other equity-based awards, as specified in the individual plans.

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:

Title of Plan	Group Eligible	Type of Award Granted	As of December 31, 2014	
			Awards Outstanding	Additional Awards Authorized for Grant
2013 Stock and Option Plan	Employees, Non-employee Directors and Consultants	NSO, RS and RSU	2,857,275	9,362,898
2006 Stock and Option Plan	Employees, Non-employee Directors and Consultants	NSO, RS and RSU	11,428,741	1,189,473
1996 Stock and Option Plan	Employees, Non-employee Directors, Advisors and Consultants	NSO, ISO and RS	623,789	—
Total			14,909,805	10,552,371

All options granted under the Company’s 2013 Stock and Option Plan (“2013 Plan”), 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, 2014, the stock and option plans under which the Company makes new equity awards are the Company’s 2006 Plan and 2013 Plan. Under the 2006 Plan and the 2013 Plan, 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 (i) approved an increase in the number of shares authorized for issuance pursuant to the 2013 Plan of 9,500,000 shares in 2014, (ii) authorized 3,300,000 shares for issuance pursuant to the 2013 Plan in 2013 and (iii) approved an increase in the number of shares authorized for issuance pursuant to the 2006 Plan of 3,000,000 shares in 2012.

During the three years ended December 31, 2014, grants to current employees and directors primarily 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, 2014, 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 10 years from the grant date.

During the three years ended December 31, 2014, all shares of outstanding restricted stock and restricted stock units have been granted at a 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.

The following table summarizes information related to the outstanding and exercisable options during the year ended December 31, 2014:

	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 31, 2013	15,729	\$ 44.40		
Granted	3,614	\$ 84.33		
Exercised	(6,153)	\$ 41.53		
Forfeited	(1,173)	\$ 55.28		
Expired	(14)	\$ 66.43		
Outstanding at December 31, 2014	12,003	\$ 56.81	6.94	\$ 761,274
Exercisable at December 31, 2014	5,553	\$ 45.61	5.43	\$ 414,345
Exercisable and Expected to Vest at December 31, 2014	11,380	\$ 55.94	6.85	\$ 731,677

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Notes to Consolidated Financial Statements (Continued)

The aggregate intrinsic value in the table above represents the total pre-tax amount, net of exercise price, that 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, 2014, which was \$120.23 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 2014, 2013 and 2012 was \$316.5 million, \$291.6 million and \$148.7 million, respectively. The total cash received by the Company as a result of employee stock option exercises during 2014, 2013 and 2012 was \$255.5 million, \$246.8 million and \$172.8 million, respectively.

The following table summarizes information about stock options outstanding and exercisable at December 31, 2014 :

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted-average Remaining Contractual Life	Weighted-average Exercise Price	Number Exercisable	Weighted-average Exercise Price
	(in thousands)	(in years)	(per share)	(in thousands)	(per share)
\$10.41–\$20.00	214	2.25	\$ 17.66	214	\$ 17.66
\$20.01–\$40.00	3,702	4.40	\$ 35.07	2,989	\$ 34.73
\$40.01–\$60.00	3,690	7.46	\$ 48.52	1,435	\$ 50.48
\$60.01–\$80.00	1,980	8.85	\$ 76.13	442	\$ 74.76
\$80.01–\$100.00	2,401	8.87	\$ 90.23	473	\$ 84.9
\$100.01–\$112.48	16	9.83	\$ 110.58	—	\$ —
Total	12,003	6.94	\$ 56.81	5,553	\$ 45.61

The following table summarizes the restricted stock activity of the Company during the year ended December 31, 2014 :

	Restricted Stock	Weighted-average Grant-date Fair Value
	(in thousands)	(per share)
Unvested at December 31, 2013	2,046	\$ 52.66
Granted	1,897	\$ 92.00
Vested	(595)	\$ 50.65
Cancelled	(441)	\$ 56.36
Unvested at December 31, 2014	<u>2,907</u>	<u>\$ 78.18</u>

The total fair value of restricted stock that vested during 2014, 2013 and 2012 (measured on the date of vesting) was \$54.5 million, \$50.9 million and \$41.1 million, respectively.

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. As of December 31, 2014, there were 1,396,227 shares of common stock authorized for issuance pursuant to the ESPP.

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Notes to Consolidated Financial Statements (Continued)

In 2014, the following shares were issued to employees under the ESPP:

	Year Ended December 31, 2014	
	(in thousands, except per share amount)	
Number of shares		357
Average price paid per share	\$	53.65

N. 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.

The effect of stock-based compensation expense during the three years ended December 31, 2014 was as follows:

	2014	2013	2012
	(in thousands)		
Stock-based compensation expense by line item:			
Research and development expenses	\$ 116,998	\$ 81,183	\$ 71,243
Sales, general and administrative expenses	60,544	45,652	42,561
Total stock-based compensation expense included in costs and expenses	\$ 177,542	\$ 126,835	\$ 113,804

The stock-based compensation expense by type of award during the three years ended December 31, 2014 was as follows:

	2014	2013	2012
	(in thousands)		
Stock-based compensation expense by type of award:			
Stock options	\$ 99,961	\$ 84,599	\$ 78,566
Restricted stock and restricted stock units	70,678	36,479	29,194
ESPP share issuances	8,326	6,805	7,298
Less: stock-based compensation expense capitalized to inventories	(1,423)	(1,048)	(1,254)
Total stock-based compensation expense included in costs and expenses	\$ 177,542	\$ 126,835	\$ 113,804

In 2013 and 2012, the Company also recognized stock-based compensation expense recorded to noncontrolling interest (Alios), which is reflected in the Company's consolidated statements of shareholders equity and noncontrolling interest on the consolidated balance sheet and in discontinued operations attributable to noncontrolling interest as of December 31, 2014.

The Company capitalizes stock-based compensation expense to inventories, all of which is attributable to employees who supported the Company's manufacturing operations for the Company's products.

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Notes to Consolidated Financial Statements (Continued)

The following table sets forth the Company's unrecognized stock-based compensation expense, net of estimated forfeitures, as of December 31, 2014, by type of award and the weighted-average period over which that expense is expected to be recognized:

Type of award:	As of December 31, 2014	
	Unrecognized Expense Net of Estimated Forfeitures	Weighted-average Recognition Period
	(in thousands)	(in years)
Stock options	\$ 156,969	2.13
Restricted stock and restricted stock units	\$ 148,037	2.79
ESPP share issuances	\$ 4,262	0.61

Stock Options

The Company issues stock options with service conditions, which are generally the vesting periods of the awards. 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 2014, 2013 and 2012 had a weighted-average grant-date fair value per share of \$39.95, \$25.79 and \$19.72, respectively.

The fair value of each option granted during 2014, 2013 and 2012 was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2014	2013	2012
Expected stock price volatility	50.86%	46.20%	47.93%
Risk-free interest rate	1.77%	1.25%	0.95%
Expected term of options (in years)	5.47	5.81	5.78
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.

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Notes to Consolidated Financial Statements (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. The Company also issues, to certain members of senior management, on an annual basis restricted stock and restricted stock units that vest upon the earlier of the satisfaction of (i) a performance condition or (ii) a service condition. In addition, in 2014, the Company issued pursuant to a retention program restricted stock awards to certain members of senior management that will vest upon the satisfaction of both (i) a performance condition and (ii) a service condition.

Employee Stock Purchase Plan

The weighted-average fair value of each purchase right granted during 2014, 2013 and 2012 was \$29.59, \$21.08 and \$12.90, respectively. The following table reflects the weighted-average assumptions used in the Black-Scholes option pricing model for 2014, 2013 and 2012:

	2014	2013	2012
Expected stock price volatility	60.32%	54.69%	46.90%
Risk-free interest rate	0.09%	0.08%	0.16%
Expected term (in years)	0.75	0.74	0.74
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 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.

O. Other Arrangements

Sale of HIV Protease Inhibitor Royalty Stream

In 2008, the Company sold to a third party its rights to receive royalty payments from GlaxoSmithKline plc, net of royalty amounts to be earned by and due to a third party, for a one-time cash payment of \$160.0 million. These royalty payments relate to net sales of HIV protease inhibitors, which had been developed pursuant to a collaboration agreement between the Company and GlaxoSmithKline plc. As of December 31, 2014, the Company had \$43.2 million in deferred revenues related to the one-time cash payment, which it is recognizing over the life of the collaboration agreement with GlaxoSmithKline plc based on the units-of-revenue method. In addition, the Company continues to recognize royalty revenues equal to the amount of the third-party subroyalty and an offsetting royalty expense for the third-party subroyalty payment.

Other income (expense), net

In April 2014, the Company received a one-time cash payment of \$36.7 million from its landlord pursuant to the Fan Pier Leases. This payment related to bonds issued pursuant to an Infrastructure Development Assistance Agreement between The Commonwealth of Massachusetts and the Company's landlord. The bonds were issued in connection with the landlord's contribution to infrastructure improvements and also were dependent upon employment levels at the Company through the bond issuance date. The Company accounted for the cash payment as a government grant as it was provided in part related to the Company's employment level in Massachusetts. Such grants are recognized in income in the period in which the conditions of the grant are met and there is reasonable assurance that the grant will be received, provided it is not subject to refund. In the second quarter of 2014, the Company recorded \$36.7 million as a credit to other income (expense), net in its consolidated statements of operations because the Company's employment obligations related to these funds were satisfied as of the date of issuance of the bonds and the payment received is not subject to refund.

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Notes to Consolidated Financial Statements (Continued)

P. Income Taxes

The components of loss from continuing operations before provision for (benefit from) income taxes during the three years ended December 31, 2014 consisted of the following:

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands)		
United States	\$ (645,465)	\$ (10,638)	\$ 231,542
Foreign	(89,410)	(615,406)	(199,546)
(Loss) income from continuing operations before provision for (benefit from) income taxes	<u>\$ (734,875)</u>	<u>\$ (626,044)</u>	<u>\$ 31,996</u>

The components of the provision for (benefit from) income taxes from continuing operations during the three years ended December 31, 2014 consisted of the following:

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands)		
Current taxes:			
United States	\$ 2,853	\$ —	\$ —
Foreign	2,457	1,085	(1,865)
State	1,366	4,080	1,590
Total current taxes	<u>\$ 6,676</u>	<u>\$ 5,165</u>	<u>\$ (275)</u>
Deferred taxes:			
United States	\$ 244	\$ —	\$ —
Foreign	—	(127,587)	—
State	38	—	—
Total deferred taxes	<u>\$ 282</u>	<u>\$ (127,587)</u>	<u>\$ —</u>
Provision for (benefit from) income taxes	<u>\$ 6,958</u>	<u>\$ (122,422)</u>	<u>\$ (275)</u>

The difference between the Company's "expected" tax provision (benefit), as computed by applying the U.S. federal corporate tax rate of 35% to (loss) income from continuing operations before provision for (benefit from) income taxes, and actual tax is reconciled as follows:

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands)		
(Loss) income from continuing operations before provision for (benefit from) income taxes	\$ (734,875)	\$ (626,044)	\$ 31,996
Expected tax provision (benefit)	(257,206)	(219,115)	11,199
State taxes, net of federal benefit	1,124	3,844	1,693
Foreign rate differential	39,335	79,799	46,168
Tax credits	(33,788)	(16,775)	(1,791)
Unbenefitted operating losses	241,037	(29,900)	(63,189)
Non-deductible expenses	18,756	9,614	3,084
Rate change	(1,826)	50,076	3,275
Other	(474)	35	(714)
Provision for (benefit from) income taxes	<u>\$ 6,958</u>	<u>\$ (122,422)</u>	<u>\$ (275)</u>

The foreign rate differential in the tax rate reconciliation table reflects the effect of operations in jurisdictions with tax rates that are different from the United States. As set forth in the components of loss before provision for (benefit from) income taxes, the Company had losses in foreign jurisdictions in each year presented. Due to lower foreign tax rates, particularly in the Cayman Islands, Ireland and Switzerland, the Company's tax benefit in foreign loss jurisdictions is less than the "expected" tax benefit that would have resulted from losses in these jurisdictions at corporate tax rates in the United

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Notes to Consolidated Financial Statements (Continued)

States. The difference between the tax benefit at foreign corporate tax rates and the “expected” benefit based on corporate tax rates in the United States is reflected in the tax reconciliation table under the caption “foreign rate differential.”

The unbenefitted operating losses in the tax rate reconciliation table primarily reflect a change in the valuation allowance on deferred tax assets related to the United States, Canada, Ireland and Switzerland. In 2014, the valuation allowance increased primarily due to an increase in the net operating loss in the United States with no benefit due to the uncertainty in the Company’s ability to use them in future periods. In 2013 and 2012, there was a favorable effect on the tax provision (benefit) in the tax rate reconciliation table due to a reduction of the valuation allowance in the United States resulting from the utilization of U.S. federal net operating losses. In Canada, Ireland and Switzerland losses have been incurred that cannot be benefitted due to uncertainty in the Company’s ability to use them in future periods resulting in an unfavorable effect on the tax provision.

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 were as follows:

	As of December 31,	
	2014	2013
	(in thousands)	
Deferred tax assets:		
Net operating loss	\$ 996,172	\$ 850,946
Tax credit carryforwards	265,339	180,380
Intangible assets	3,174	26,105
Deferred revenues	15,771	25,158
Stock-based compensation	61,527	63,521
Inventories	13,395	26,278
Accrued expenses	37,699	52,470
Currency translation adjustment	—	217
Construction financing lease obligation	175,853	152,688
Gross deferred tax assets	1,568,930	1,377,763
Valuation allowance	(1,409,936)	(1,243,664)
Total deferred tax assets	158,994	134,099
Deferred tax liabilities:		
Property and equipment	(158,994)	(134,099)
Acquired intangibles	(11,544)	—
Net deferred tax liabilities	\$ (11,544)	\$ —

The Company presents its deferred tax assets and deferred tax liabilities gross on its consolidated balance sheets. As of December 31, 2014, the Company recorded \$3.5 million of deferred tax assets and \$15.0 million of deferred tax liabilities, in its prepaid expenses and other current assets and other liabilities, excluding current portion balance sheet accounts, respectively. As of December 31, 2014, \$11.5 million of the deferred tax liabilities are attributable to the Company’s collaboration with BioAxxone

For federal income tax purposes, as of December 31, 2014, the Company has net operating loss carryforwards of approximately \$3.6 billion and tax credits of \$172.4 million, which may be used to offset future federal income and tax liability, respectively. Approximately \$908.5 million of the federal net operating loss carryforward will result in an increase to additional paid-in capital if and when these carryforwards are used to reduce income taxes payable.

For state income tax purposes, the Company has net operating loss carryforwards of approximately \$750.8 million and tax credits of \$95.9 million, which may be used to offset future state income and tax liability, respectively. Approximately \$98.4 million of the state net operating loss carryforward will result in an increase to additional paid-in capital if and when these carryforwards are used to reduce state income taxes payable.

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Notes to Consolidated Financial Statements (Continued)

These federal and state operating loss carryforwards and tax credits expire at various dates through 2034. After consideration of all the evidence, both positive and negative, the Company continues to maintain a valuation allowance for the full amount of the 2014 deferred tax asset because 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 Company's consolidated balance sheet and (iii) the Company would record non-cash benefits in its consolidated statements of operations related to the reflection of the deferred tax asset on its consolidated balance sheets.

The valuation allowance increased by \$166.3 million from December 31, 2013 to December 31, 2014 primarily due to an increase in net operating losses and credits.

Unrecognized tax benefits during the two years ended December 31, 2014 consisted of the following:

	2014	2013
	(in thousands)	
Unrecognized tax benefits beginning of year	\$ 2,024	\$ 4,106
Gross change for current year positions	—	1,325
Decrease for prior period positions	(27)	(290)
Decrease due to settlements and payments	(1,117)	—
Decrease due to statute limitations	—	(185)
Deconsolidation of Alios	—	(2,932)
Unrecognized tax benefits end of year	\$ 880	\$ 2,024

The Company had gross unrecognized tax benefits of \$0.9 million and \$2.0 million, respectively, as of December 31, 2014 and 2013. At December 31, 2014, \$0.9 million represented the amount of unrecognized tax benefits that, if recognized, would result in a reduction of the Company's effective tax rate. The Company recognizes interest and penalties related to income taxes as a component of income tax expense. As of December 31, 2014, no interest and penalties have been accrued. In 2015, it is reasonably possible that the Company will reduce the balance of its unrecognized tax benefits by approximately \$0.5 million due to the application of statute of limitations and settlements with taxing authorities, all of which would reduce the Company's effective tax rate.

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 2010 or any other major taxing jurisdiction for years before 2009, except where the Company has net operating losses or tax credit carryforwards that originate before 2009. The Company is currently under examination by Revenue Quebec for the year ended December 31, 2013 and the Internal Revenue Service, Massachusetts and Pennsylvania for the year ended December 31, 2011. No adjustments have been reported. The Company is not under examination by any other jurisdictions for any tax year. The Company concluded audits with the Canada Revenue Agency and Revenue Quebec during 2014 with no material adjustments.

At December 31, 2014, foreign earnings, which were not significant, have been retained indefinitely by foreign subsidiary companies for reinvestment; therefore, no provision has been made for income taxes that would be payable upon the distribution of such earnings, and it would not be practicable to determine the amount of the related unrecognized deferred income tax liability. Upon repatriation of those earnings, in the form of dividends or otherwise, the Company would be subject to U.S. federal income taxes (subject to an adjustment for foreign tax credits) and withholding taxes payable to the various foreign countries.

Q. Restructuring Expenses

Facility Lease Obligations

The Company has adopted several plans to restructure its facility operations for which it has incurred restructuring expenses in the three years ended December 31, 2014. The Company's initial estimate of its liabilities for net ongoing costs associated with these facility obligations are recorded at fair value on the cease use date. In estimating the expenses and

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Notes to Consolidated Financial Statements (Continued)

liabilities related to these facilities, the Company utilizes a probability-weighted discounted cash-flows of the Company's ongoing lease obligations. In estimating the expense and liability under its lease obligations, 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 to discount the estimated cash flows.

The Company reviews its estimates and assumptions on at least a quarterly basis, intends to continue such reviews until the termination of these facility lease obligations, 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 these liabilities. Changes to the Company's estimate of these liabilities are recorded as additional restructuring expenses (credits). In addition, because the Company's estimate of these liabilities includes the application of a discount rate to reflect the time-value of money, the Company records imputed interest costs related to these liabilities each quarter. These costs are included in restructuring expenses on the Company's consolidated statements of operations.

2003 Kendall Restructuring

In 2003, the Company adopted a plan to restructure its operations (the "2003 Kendall Restructuring") 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 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 rentable square footage of the Kendall Square Facility related to the 2003 Kendall Restructuring currently is subleased to third parties.

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 Kendall Square Facility that the Company was not occupying and did not intend to occupy for its operations. The Company uses a discount rate of 10% related to this restructuring activity.

The remaining lease obligations, which are associated with the 120,000 square foot portion of the Kendall Square Facility that the Company occupied and used for its operations, were recorded as rental expense in the period incurred until the Company incurred a cease use charge related to this portion of the Kendall Square Facility in the third quarter of 2014 in connection with transitioning its Massachusetts operations to Fan Pier in Boston, Massachusetts (the "Fan Pier Move Restructuring").

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

	Restructuring Expense	Cash Payments	Non-cash Expense	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	<u>\$ 91,824</u>	<u>\$ (17,816)</u>	<u>\$ (4,482)</u>	<u>\$ 69,526</u>

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Notes to Consolidated Financial Statements (Continued)

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 activities related to 2003 restructuring liability for 2004 through 2014 were as follows:

	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2004-2014</u>
	(in thousands)			
Liability, beginning of the period	\$ 19,115	\$ 23,328	\$ 26,313	\$ 69,526
Cash payments	(17,494)	(15,255)	(14,853)	(196,446)
Cash received from subleases	12,912	10,670	10,024	88,620
Credit for portion of facility Vertex decided to occupy in 2005	—	—	—	(10,018)
Restructuring expense	(2,937)	372	1,844	59,914
Liability, end of the period	<u>\$ 11,596</u>	<u>\$ 19,115</u>	<u>\$ 23,328</u>	<u>\$ 11,596</u>

Fan Pier Move Restructuring

In connection with the relocation of its Massachusetts operations to Fan Pier in Boston, Massachusetts, which commenced in 2013, the Company is incurring restructuring charges related to its remaining lease obligations at its facilities in Cambridge, Massachusetts. The majority of these restructuring charges were recorded in the third quarter of 2014 upon decommissioning three facilities in Cambridge. The Company discounted the estimated cash flows related to the facilities at a discount rate of 9%. The Company will continue to incur charges through April 2018 related to the difference between the Company's estimated future cash flows related to its lease obligations, which include an estimate for sublease income to be received if applicable, and its actual cash flows. The Fan Pier Move Restructuring included lease obligations related to the 120,000 square feet of the Kendall Square Facility that the Company continued to use for its operations following its 2013 Kendall Restructuring. The remaining rentable square footage of the Kendall Square Facility related to the Fan Pier Move Restructuring was subleased to a third party in February 2015.

The activities related to the Fan Pier relocation restructuring liability for the years ended December 31, 2013 and 2014 were as follows:

	<u>2014</u>	<u>2013</u>
	(in thousands)	
Liability, beginning of the period	\$ 797	\$ —
Cash payments	(18,271)	(401)
Restructuring expense	50,864	1,198
Liability, end of the period	<u>\$ 33,390</u>	<u>\$ 797</u>

Other Restructuring Activities

The Company has incurred several other restructuring activities that are unrelated to its 2003 Kendall Restructuring and the Fan Pier Move Restructuring. The most significant activity commenced in October 2013 when the Company adopted a restructuring plan that included (i) a workforce reduction primarily related to the commercial support of INCIVEK following the continued and rapid decline in the number of patients being treated with INCIVEK as new medicines for the treatment of HCV infection neared approval and (ii) the write-off of certain assets. This action resulted from the Company's decision to focus its investment on future opportunities in cystic fibrosis and other research and development programs.

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Notes to Consolidated Financial Statements (Continued)

The activities related to the Company's other restructuring liabilities for the years ended December 31, 2013 and 2014 were as follows:

	2014	2013
	(in thousands)	
Liability, beginning of the period	\$ 8,441	\$ —
Cash payments	(10,570)	(22,916)
Asset impairments and other non-cash expense	—	(7,594)
Restructuring expense	2,998	38,951
Liability, end of the period	<u>\$ 869</u>	<u>\$ 8,441</u>

R. Employee Benefits

The Company has a 401(k) retirement plan (the "Vertex 401(k) Plan") in which substantially all of its permanent U.S. 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. Through mid-2013, the Company paid matching contributions in Vertex common stock in the form of fully-vested interests in a Vertex common stock fund. Beginning in mid-2013, the Company began paying matching contributions in the form of cash. For the years ended December 31, 2014, 2013 and 2012, the Company contributed approximately \$12.0 million, \$12.6 million and \$12.0 million to the plan, respectively. As of December 31, 2014, 755,000 shares of common stock remained available for grant under the Vertex 401(k) Plan. In 2012 and 2013, the Company declared matching contributions paid in fully-vested interests in the Vertex common stock fund to the Vertex 401(k) Plan as follows:

	2013	2012
	(in thousands)	
Discretionary matching contributions during the year ended December 31,	\$ 5,930	\$ 10,261
Shares issued during the year ended December 31,	99	242
Shares issuable as of the year ended December 31,	—	53

S. Commitments and Contingencies

Lease Obligations

The Company moved into its corporate headquarters in January 2014. Please refer to Note L, "Long Term Obligations," for additional information regarding this commitment. The leases for the Company's former headquarters expire in December 2015.

The Kendall Square Lease began in January 2003 and will expire in April 2018. The Company occupied and used for its operations approximately 120,000 square feet of the Kendall Square Facility until 2014 when it moved its operations to Fan Pier. The Company has sublease arrangements in place for the remaining rentable square footage of the Kendall Square Facility, with terms that expire concurrently with the Kendall Square Lease. Please refer to Note Q, "Restructuring Expenses," for further information.

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Notes to Consolidated Financial Statements (Continued)

As of December 31, 2014, future minimum commitments under the Fan Pier Leases, facility operating leases with terms of more than one year and contractual sublease income under the Company's subleases for the Kendall Square Facility as adjusted for a sublease executed in February 2015 were as follows:

Year	Fan Pier Leases	Kendall Square Lease	Kendall Sublease Income	Other Operating Leases	Total Lease Commitments (Net of Sublease Income)
	(in thousands)				
2015	\$ 67,206	\$ 19,879	\$ (11,405)	\$ 28,710	\$ 104,390
2016	67,206	19,879	(15,355)	12,953	84,683
2017	67,206	19,879	(15,355)	12,792	84,522
2018	67,206	6,626	(5,118)	12,582	81,296
2019	72,589	—	—	9,330	81,919
Thereafter	680,209	—	—	78,612	758,821
Total minimum lease payments	<u>\$ 1,021,622</u>	<u>\$ 66,263</u>	<u>\$ (47,233)</u>	<u>\$ 154,979</u>	<u>\$ 1,195,631</u>

During 2014, 2013 and 2012, rental expense was \$38.9 million, \$57.7 million and \$57.1 million, respectively. The majority of the Company's lease payments related to the Fan Pier Leases are recorded as interest expense because the Company was deemed for accounting purposes to be the owner of the Buildings. Please refer to Note L, "Long Term Obligations," for further information.

The Company has outstanding capital leases for equipment, leasehold improvements and software licenses with terms through 2019. The leases were accounted for as capital leases. The capital leases bear interest at rates ranging from less than 1% to 9% per year. The following table sets forth the Company's future minimum payments due under capital leases as of December 31, 2014:

Year	(in thousands)
2015	\$ 20,792
2016	14,254
2017	13,129
2018	13,027
2019	3,047
Thereafter	—
Total payments	64,249
Less: amount representing interest	(7,150)
Present value of payments	<u>\$ 57,099</u>

In addition, the Company has committed to make potential future milestone and royalty payments pursuant to certain collaboration agreements. Payments generally become due and payable upon the achievement of certain developmental, regulatory and/or commercial milestones. Please refer to Note B, "Collaborative Arrangements," for further information.

Financing Arrangements

The Company has outstanding \$32.3 million in irrevocable stand-by letters of credit issued in connection with property leases and other similar agreements that currently are supported by an unsecured credit facility that expires in April 2015. The credit facility provides the Company's creditor the ability to subjectively cash collateralize the letters of credit at the conclusion of any month, which is a contingency that the Company considers to have a remote possibility of occurring.

Litigation

On May 28, 2014, a purported shareholder class action *Local No. 8 IBEW Retirement Plan & Trust v. Vertex Pharmaceuticals Incorporated, et al.* was filed in the United States District Court for the District of Massachusetts, naming the Company and certain of the Company's current and former officers and directors as defendants. The lawsuit alleged that

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Notes to Consolidated Financial Statements (Continued)

the Company made material misrepresentations and/or omissions of material fact in the Company's disclosures during the period from May 7, 2012 through May 29, 2012, all in violation of Section 10(b) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder. The purported class consists of all persons (excluding defendants) who purchased the Company's common stock between May 7, 2012 and May 29, 2012. The plaintiffs seek unspecified monetary damages, costs and attorneys' fees as well as disgorgement of the proceeds from certain individual defendants' sales of the Company's stock. On October 8, 2014, the Court approved Local No. 8 IBEW Retirement Fund as lead plaintiff, and Scott and Scott LLP as lead counsel for the plaintiff and the putative class. The Company filed a motion to dismiss the complaint on December 8, 2014 and the plaintiffs filed their opposition to our motion to dismiss on January 22, 2015. The Company believes the claims to be without merit and intends to vigorously defend the litigation. As of December 31, 2014, the Company has not recorded any reserves for this purported class action.

Guaranties and Indemnifications

As permitted under Massachusetts law, the Company's Articles of Organization and By-laws 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 currently are 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, sponsored research agreements with academic and not-for-profit institutions, various comparable agreements involving parties performing services for the Company, and 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 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 to those for the other agreements discussed above, 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 Company believes 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 all or 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.

Other 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, 2014 or 2013.

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Notes to Consolidated Financial Statements (Continued)

T. Segment Information

The Company operates in one segment, pharmaceuticals. Enterprise-wide disclosures about revenues, significant customers, and property and equipment, net by location are presented below.

Revenues by Product

Product revenues, net consisted of the following:

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands)		
KALYDECO	\$ 463,750	\$ 371,285	\$ 171,645
INCIVEK	24,071	466,360	1,161,813
Total product revenues, net	<u>\$ 487,821</u>	<u>\$ 837,645</u>	<u>\$ 1,333,458</u>

Revenues by Geographic Location

Total revenues from external customers and collaborators by geographic region consisted of the following. Product revenues are attributed to countries based on the location of the customer. Collaborative revenues are attributed to the operations of the Company in the United States. Royalty revenues are attributed to countries based on the location of the collaborator.

	<u>2014</u>	<u>2013</u>	<u>2012</u>
	(in thousands)		
United States	\$ 361,074	\$ 896,952	\$ 1,373,516
Outside of the United States			
Europe	197,611	279,557	129,786
Other	21,730	35,466	23,740
Total revenues outside of the United States	<u>219,341</u>	<u>315,023</u>	<u>153,526</u>
Total revenues	<u>\$ 580,415</u>	<u>\$ 1,211,975</u>	<u>\$ 1,527,042</u>

In 2014, revenues attributable to the United Kingdom were the majority of the Company's European revenues.

Significant Customers

Gross revenues and accounts receivable from each of the Company's customers who individually accounted for 10% or more of total gross revenues and/or 10% or more of total gross accounts receivable consisted of the following:

	<u>Percent of Total Gross Revenues</u>			<u>Percent of Gross Accounts Receivable</u>	
	<u>Year Ended December 31,</u>			<u>As of December 31,</u>	
	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2014</u>	<u>2013</u>
Walgreen Co.	12%	<10%	<10%	11%	<10%
Bupa Home Healthcare Limited	<10%	<10%	N/A	20%	14%
Janssen Inc.	<10%	N/A	N/A	12%	N/A
Janssen NV	<10%	22%	<10%	<10%	28%
AmerisourceBergen Drug Corporation	<10%	21%	32%	<10%	<10%
McKesson Corporation	<10%	21%	29%	<10%	<10%
Cardinal Health Incorporated	<10%	<10%	15%	<10%	<10%

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Notes to Consolidated Financial Statements (Continued)

Property and Equipment, Net by Location

Property and equipment, net by location consisted of the following:

	As of December 31,	
	2014	2013
	(in thousands)	
United States	\$ 676,968	\$ 657,587
Outside of the United States		
United Kingdom	33,628	29,970
Other	5,216	9,354
Total property and equipment, net outside of the United States	38,844	39,324
Total property and equipment, net	\$ 715,812	\$ 696,911

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

U. Quarterly Financial Data (unaudited)

The following table sets forth our quarterly financial data for the two years ended December 31, 2014 and have been revised to reflect discontinued operations for quarterly periods prior to the three months ended September 30, 2014.

	Three Months Ended			
	March 31, 2014	June 30, 2014	September 30, 2014	December 31, 2014
(in thousands, except per share amounts)				
Revenues:				
Product revenues, net	\$ 103,461	\$ 122,319	\$ 137,099	\$ 124,942
Royalty revenues	10,733	13,015	8,386	8,785
Collaborative revenues (1)	4,257	3,087	33,502	10,829
Total revenues	118,451	138,421	178,987	144,556
Costs and expenses:				
Cost of product revenues	8,572	9,655	10,208	11,290
Royalty expenses	6,904	7,645	3,976	2,737
Research and development expenses	238,617	224,487	190,939	201,463
Sales, general and administrative expenses	74,212	77,446	75,224	78,527
Restructuring expenses (2)	6,188	(270)	40,843	4,164
Total costs and expenses	334,493	318,963	321,190	298,181
Loss from operations	(216,042)	(180,542)	(142,203)	(153,625)
Interest expense, net	(15,717)	(15,585)	(20,384)	(21,177)
Other income (expense), net (3)	451	37,731	(3,990)	(3,792)
Loss from continuing operations before provision for income taxes	(231,308)	(158,396)	(166,577)	(178,594)
Provision for income taxes	803	693	3,419	2,043
Loss from continuing operations	(232,111)	(159,089)	(169,996)	(180,637)
Loss from discontinued operations (4)	(346)	(293)	(64)	(209)
Net loss	(232,457)	(159,382)	(170,060)	(180,846)
Loss attributable to noncontrolling interest	—	—	—	4,190
Net loss attributable to Vertex	\$ (232,457)	\$ (159,382)	\$ (170,060)	\$ (176,656)
Amounts attributable to Vertex:				
Loss from continuing operations attributable to Vertex	\$ (232,111)	\$ (159,089)	\$ (169,996)	\$ (176,447)
Loss from discontinued operations (4)	(346)	(293)	(64)	(209)
Net loss attributable to Vertex	\$ (232,457)	\$ (159,382)	\$ (170,060)	\$ (176,656)
Amounts per share attributable to Vertex common shareholders:				
Net loss from continuing operations:				
Basic and diluted	\$ (1.00)	\$ (0.68)	\$ (0.72)	\$ (0.74)
Net loss from discontinued operations:				
Basic and diluted	\$ —	\$ —	\$ —	\$ —
Net loss:				
Basic and diluted	\$ (1.00)	\$ (0.68)	\$ (0.72)	\$ (0.74)
Shares used in per share calculations:				
Basic and diluted	232,887	233,808	236,137	238,272

VERTEX PHARMACEUTICALS INCORPORATED

Notes to Consolidated Financial Statements (Continued)

	Three Months Ended			
	March 31, 2013	June 30, 2013	September 30, 2013	December 31, 2013
	(in thousands, except per share amounts)			
Revenues:				
Product revenues, net	\$ 267,381	\$ 254,789	\$ 186,653	\$ 128,822
Royalty revenues	43,573	49,120	27,012	36,887
Collaborative revenues (5)	17,414	6,841	8,035	185,448
Total revenues	328,368	310,750	221,700	351,157
Costs and expenses:				
Cost of product revenues	30,955	24,695	20,048	13,281
Royalty expenses	11,788	13,236	7,291	8,983
Research and development expenses	210,200	213,994	219,442	238,461
Sales, general and administrative expenses	91,625	105,081	86,427	73,055
Restructuring expenses	39	776	12,048	27,658
Intangible asset impairment charge (4)	412,900	—	—	—
Total costs and expenses	757,507	357,782	345,256	361,438
Loss from operations	(429,139)	(47,032)	(123,556)	(10,281)
Interest expense, net	(3,469)	(6,727)	(104)	(12,626)
Other (expense) income, net	(1,175)	(34)	4,760	3,339
Loss from continuing operations before (benefit from) provision for income taxes	(433,783)	(53,793)	(118,900)	(19,568)
(Benefit from) provision for income taxes (6)	(126,887)	558	2,555	1,352
Loss from continuing operations	(306,896)	(54,351)	(121,455)	(20,920)
Loss from discontinued operations, net of tax benefit (4)	(5,731)	(7,361)	(7,207)	(163,629)
Net loss	(312,627)	(61,712)	(128,662)	(184,549)
Loss from discontinued operations attributable to noncontrolling interest (4)	4,611	4,547	4,530	228,834
Net (loss) income attributable to Vertex	<u>\$ (308,016)</u>	<u>\$ (57,165)</u>	<u>\$ (124,132)</u>	<u>\$ 44,285</u>
Amounts attributable to Vertex:				
Loss from continuing operations attributable to Vertex	\$ (306,896)	\$ (54,351)	\$ (121,455)	\$ (20,920)
(Loss) income from discontinued operations (4)	(1,120)	(2,814)	(2,677)	65,205
Net (loss) income attributable to Vertex	<u>\$ (308,016)</u>	<u>\$ (57,165)</u>	<u>\$ (124,132)</u>	<u>\$ 44,285</u>
Amounts per share attributable to Vertex common shareholders:				
Net loss from continuing operations:				
Basic and diluted	\$ (1.42)	\$ (0.25)	\$ (0.53)	\$ (0.09)
Net (loss) income from discontinued operations:				
Basic and diluted	\$ (0.01)	\$ (0.01)	\$ (0.01)	\$ 0.28
Net (loss) income:				
Basic and diluted	\$ (1.43)	\$ (0.26)	\$ (0.54)	\$ 0.19
Shares used in per share calculations:				
Basic and diluted	215,421	222,053	230,505	231,264

1. During the third quarter of 2014, the Company received a non-refundable up-front payment of \$30.0 million from Janssen Inc., which was recorded as collaborative revenue in the third quarter. See Note B, "Collaborative Arrangements," for further information.
2. During the third quarter of 2014, the Company recorded \$40.8 million of restructuring expenses primarily related to the relocation of its corporate headquarters to Boston from Cambridge. See Note Q, "Restructuring Expenses," for further information.
3. During the second quarter of 2014, the Company received a one-time cash payment of \$36.7 million from its landlord pursuant to the Fan Pier Leases, which was recorded as other income in the second quarter. See Note O, "Other Arrangements," for further information.

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Notes to Consolidated Financial Statements (Continued)

4. During the fourth quarter of 2013, the Company deconsolidated Alios, which included certain charges attributable to Vertex related to the deconsolidation recorded in other income (expense), net, and was preceded by a \$250.6 million intangible asset impairment charge related to the HCV nucleotide analogue program indefinite-lived in-process research and development asset. In connection with this impairment charge, a credit of \$102.1 million was recorded to the provision for income taxes attributable to Alios. As of September 30, 2014, the Company concluded that it no longer had significant continuing involvement with Alios due to its intent and ability to terminate the Alios Agreement; therefore, the operations of Alios, including collaboration expenses reimbursed by Vertex are presented as discontinued operations for the periods presented in these consolidated financial statements.
5. During the fourth quarter of 2013, the Company recorded \$182.4 million of collaborative revenue related to its Janssen collaboration, which was primarily attributable to an amendment to its collaboration agreement with Janssen. See Note B, "Collaborative Arrangements," for further information.
6. During the first quarter of 2013, the Company recorded a \$412.9 million intangible asset impairment charge related to its VX-222 indefinite-lived in-process research and development asset. In connection with this impairment charge, the Company recorded a credit of \$127.6 million in its provision for income taxes. See Note J, "Intangible Assets and Goodwill," for further information.

VERTEX PHARMACEUTICALS INCORPORATED
2013 STOCK AND OPTION PLAN

Form of Non-Qualified Stock Option Grant

This Agreement sets forth the terms and conditions of an Option granted pursuant to the provisions of the 2013 Stock and Option Plan (as it may be amended or restated, the “Plan”) of Vertex Pharmaceuticals Incorporated (the “Company”) to the Participant whose name appears below, covering the number of Shares of Common Stock of the Company set forth below, pursuant to the provisions of the Plan and on the following express terms and conditions. Capitalized terms not otherwise defined herein shall have the same meanings as set forth in the Plan, and any Options evidenced hereby are granted subject to the terms of the Plan.

1. Name and address of Participant to whom this Option is granted:

[INSERT NAME/ADDRESS]

2. Number of Shares of Common Stock subject to this Option:

[_____]

3. Purchase price of Shares subject to this Option:

[_____]

4. Date of grant of this Option:

[_____]

5. Expiration date of this Option: This Option shall expire on [_____], subject to earlier termination in the event of any Termination of Service or death of the Participant or otherwise in accordance with the provisions of the Plan. Except as provided in Section 6.5(a)(ii) of this Agreement, this Option may not be exercised later than (a) ninety (90) days after a Termination of Service of the Participant or (b) if the Participant dies while serving as an Employee, Non-Employee Director, consultant or advisor of the Company or an Affiliate, one (1) year after the Participant’s death.

6. Vesting.

6.1 Vesting Schedule. This Option shall vest and become exercisable, so long as the Participant continues to serve as an Employee, Non-Employee Director, consultant or adviser of the Company or an Affiliate, [INSERT VESTING SCHEDULE], except as otherwise provided in Sections 6.2, 6.3, 6.4 or 6.5 of this Agreement. The vesting of this Option shall cease immediately upon a Termination of Service of Participant.

6.2 Absence. This Option shall not vest during any period of long-term disability or personal leave of absence of the Participant from the Company or an Affiliate (as determined under applicable Company policies). If the Participant resumes employment with the Company after a personal leave of absence or long-term disability in accordance with applicable Company policies, vesting shall resume upon the resumption of eligibility, and the Option will continue vesting at the rate provided in Section 6.1 of this Agreement until fully vested. Notwithstanding the foregoing, in no event shall the term of the Option be extended beyond the date set forth in Section 5 of this Agreement.

6.3 Death of the Participant. If the Participant dies while serving as an Employee, Non-Employee Director, consultant or

advisor of the Company or an Affiliate, the vesting of all unvested Shares subject to this Option shall be accelerated, and the Option shall be exercisable as to such installments, together with any previously vested but unexercised portion of the Option, effective as of the date of death.

6.4 Termination for Cause.

(a) If the Participant's employment or other service to the Company is terminated by the Company for Cause (as defined below), the Company may, at its election, terminate the Participant's right to exercise this Option (including with respect to any vested but unexercised Shares). If the Participant is notified that the Company is investigating or evaluating whether the Company will terminate Participant's employment or other service to the Company for Cause, the Company may, at its election, suspend Participant's right to exercise this Option by written notice to the Participant. If after such notification it is determined or otherwise agreed that Participant's service to the Company will not be terminated for Cause, vesting of the Shares shall resume pursuant to the original schedule and any Shares that would have vested during such time as vesting was suspended shall immediately vest.

(b) "Cause" shall mean (i) the Participant's dishonesty or fraud, or (ii) the willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, any material breach by the Participant of any provision of any Company policy or any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), in each case as determined in good faith by the Company, which determination shall be conclusive; provided, however, that if there is a conflict between this definition of Cause and either (1) the definition of "Cause" contained in any employment agreement between the Company and the Participant or (2) the definition of "Cause" contained in any change-of-control agreement between the Company and the Participant, then such other definition shall be controlling for purposes of this Agreement.

[6.5 Career Employment Provision.

(a) If a Participant experiences a Termination of Service other than for Cause, and the Participant is a Qualified Participant (as defined below), then (i) an additional number of Shares equal to (A) the sum of 50% plus 10% for each full year of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate in excess of five (5) full years of service multiplied by (B) the number of unvested Shares subject to this Option immediately prior to the Participant's Termination of Service, shall vest; and (ii) all vested but unexercised Shares (including any shares that vested pursuant to the preceding subsection (i)) may be exercised until the expiration date of this Option as set forth in Section 5 of this Agreement.

(b) A "Qualified Participant" shall mean a Participant (i) who is at least fifty-five (55) years old, (ii) who has completed at least five (5) full years of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate, (iii) whose age plus full years of service [as an Employee and/or a Non-Employee Director] to the Company [or an Affiliate] is 65 or greater and (iv) who has completed a [mandatory] transitional period of employment with the Company following notice of the Termination of Service, the duration of which will be [_____].(1)

7. Non-Qualified Option . This Option is a Non-Qualified Option that is not intended to qualify as an ISO within the meaning of Section 422(b) of the Code.

8. Plan. The Participant hereby acknowledges receipt of a copy of the Plan as presently in effect. The text and all of the terms and provisions of the Plan are incorporated herein by reference, and this Agreement is subject to these terms and provisions in all respects.

9. Exercise. The Participant may exercise this Option in the manner set forth in Section 9 of the Plan.

10. Restrictions on Transfer. Except as provided in Section 10 of the Plan, this Option may not be sold, transferred, assigned, hypothecated, pledged, encumbered or otherwise disposed of, whether voluntarily or by operation of law. Any such purported transfer shall be null and void, and shall not be recognized by the Company.

11. International Employees. This Option shall be subject to the additional terms and provisions, if any, applicable to such Participant

as are set forth on an Exhibit A to this Agreement, which terms and conditions are incorporated herein by reference.

VERTEX PHARMACEUTICALS INCORPORATED

By: _____

(1) Applicable to grants made on or after February 5, 2014.

VERTEX PHARMACEUTICALS INCORPORATED
2013 STOCK AND OPTION PLAN

Form of Restricted Stock Award

This Agreement sets forth the terms and conditions of a Stock Grant granted pursuant to the provisions of the 2013 Stock and Option Plan (as it may be amended or restated, the “Plan”) of Vertex Pharmaceuticals Incorporated (the “Company”) to the Participant whose name appears below, for the number of Shares of Common Stock of the Company set forth below, pursuant to the provisions of the Plan and on the following express terms and conditions. Capitalized terms not otherwise defined herein shall have the same meanings as set forth in the Plan, and any Stock Grants evidenced hereby are granted subject to the terms of the Plan.

1. Name and address of Participant to whom the Shares are granted:

[INSERT NAME/ADDRESS]

2. Number of Shares of Common Stock in Stock Grant (the “Shares”):

[_____]

3. Purchase price of Shares:

[_____]

4. Date of grant of the Shares:

[_____]

5. Vesting and Company’s Repurchase Rights.

5.1 Vesting Schedule. [INSERT VESTING SCHEDULE]. Except as provided in Section 5.5 of this Agreement, upon any Termination of Service of the Participant, vesting of the Shares shall immediately cease, and the Company shall have a right to repurchase any unvested Shares from the Participant at a price per Share equal to the purchase price per Share set forth in Section 3 of this Agreement.

5.2 Death of the Participant. If the Participant dies while an Employee, Non-Employee Director, consultant or advisor of the Company or an Affiliate, the vesting of all unvested Shares subject to this Stock Grant shall be accelerated and shall vest on the date of death of the Participant.

5.3 Termination for Cause.

(a) If the Participant is notified that the Company is investigating or evaluating whether the Company will terminate Participant’s employment or other service to the Company for Cause, the Company may, at its election, suspend the vesting of any unvested Shares by written notice to the Participant (and if the Participant’s employment or other service to the Company is thereafter terminated for Cause, the Company may, at its election, repurchase any remaining unvested Shares from the Participant at a price per Share equal to the purchase price per Share set forth in Section 3 of this Agreement). If after such notification it is determined or otherwise agreed that Participant’s service to the Company will not be terminated for Cause, vesting of the Shares shall resume pursuant to the original schedule and any Shares that would have vested during such suspension immediately shall vest.

(b) “Cause” shall mean (i) the Participant’s dishonesty or fraud, or (ii) the willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, any material breach by the Participant of any provision of any Company policy or any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), in each case as determined in good faith by the Company, which determination shall be conclusive; provided, however, that if there is a conflict between this definition of Cause and either (1) the definition of “Cause” contained in any employment agreement between the Company and the Participant or (2) the definition of “Cause” contained in any change-of-control agreement between the Company and the Participant, then such other definition shall be controlling for purposes of this Agreement.

5.4 Repurchase Rights. The Company’s rights to repurchase the Shares pursuant to Sections 5.1, 5.3 or 5.5 of this Agreement shall be valid for a period of one year beginning on the date of the Termination of Service of the Participant. Notwithstanding any other provision hereof, if the Company is prohibited during such one-year period from exercising its lapsing repurchase right by applicable law, then the time period during which such repurchase right may be exercised shall be extended until the later of (a) the end of such one-year period or (b) 30 days after the Company is first not so prohibited.

[**5.5 Career Employment Provision.** If a Participant experiences a Termination of Service other than for Cause, and the Participant is a Qualified Participant (as defined below), then an additional number of Shares equal to (a) the sum of 50% plus 10% for each full year of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate in excess of five (5) full years of service multiplied by (b) the number of unvested Shares subject to this Stock Grant immediately prior to the Participant’s Termination of Service, shall vest. A “Qualified Participant” shall mean a Participant (i) who is at least fifty-five (55) years old, (ii) who has completed at least five (5) full years of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate, (iii) whose age plus full years of service [as an Employee and/or a Non-Employee Director] to the Company [or an Affiliate] is 65 or greater and (iv) who has completed a [mandatory] transitional period of employment with the Company following notice of the Termination of Service, the duration of which will be [_____]. The Company shall have the right to repurchase any remaining unvested Shares from the Participant at a price per Share equal to the purchase price per Share set forth in Section 3 of this Agreement.](1)

6. Agreement with respect to Tax Payments, Withholding and Sale of a Portion of Shares. The Participant acknowledges and agrees that any income or other taxes due from the Participant with respect to the Shares issued pursuant to this Agreement, including on account of the vesting of the Shares, shall be the Participant’s responsibility. [In connection with the foregoing, the Participant agrees that the Company shall authorize a registered broker (the “Broker”) to sell, on the next trading day after the lapse of the Company’s lapsing repurchase right, that number of Shares as the Company instructs the Broker to sell solely to satisfy the Company’s tax withholding obligations, after deduction of the Broker’s commission, and the Broker shall remit to the Company the cash necessary in order for the Company to satisfy its withholding obligation, provided, however, that the Company shall not authorize any such sale if the Participant shall have issued a binding instruction (the “Instruction”) to the Company, in form satisfactory to the Company, which instruction may be delivered at any time prior to the 30th day after the date of grant of the Shares, that provides that the Company shall not instruct the Broker to sell such Shares. Any such Instruction shall include an undertaking by the Participant to pay the Company the amount of any tax withholding in accordance with the Company’s policies then in effect. The Participant agrees to pay to the Company as soon as practicable, including through payroll, the amount of any tax withholding, that is for whatever reason, not satisfied by such Broker’s sale. The Participant acknowledges that this Section 6 is intended to comply with Section 10b5-1(c)(1)(i)(B) under the Securities Exchange Act of 1934, as amended, and that the delivery of the Shares shall be made by the Company after satisfaction of the tax withholding payments as set forth in Section 8 of this Agreement. The Participant agrees to hold the Company and the Broker harmless from all costs, damages or expenses relating to any such sale, and acknowledges that the Company and the Broker are under no obligation to arrange for such sale at any particular price. The Participant further acknowledges that the grant of Shares made hereunder is subject to Participant’s acceptance of the terms of this Section 6, and other terms and provisions of this Agreement.](2)

7. Restrictions on Transfer. Except as provided in Section 10 of the Plan, the Shares may not be sold, transferred, assigned, hypothecated, pledged, encumbered or otherwise disposed of, whether voluntarily or by operation of law, at any time before they become vested Shares pursuant to Section 5 of this Agreement. Any such purported transfer shall be null and void, and shall not be recognized by the Company or recorded on its books.

8. Escrow. All Shares that have not vested pursuant to Section 5 of this Agreement, together with any securities distributed in respect thereof, such as through a stock split or other recapitalization, shall be held by the Company in escrow until such Shares shall have vested and the deposit required for tax withholding has been made pursuant to Section 6 of this Agreement. The Company promptly shall release vested Shares from escrow upon satisfaction of the foregoing conditions.

9. Plan. The Participant hereby acknowledges receipt of a copy of the Plan as presently in effect and the Prospectus with respect thereto. All of the terms and provisions of the Plan are incorporated herein by reference, and this Restricted Stock Award is subject to those terms and provisions in all respects.

VERTEX PHARMACEUTICALS INCORPORATED

By: _____

- (1) Applicable to grants made on or after February 5, 2014.
- (2) For Section 16 Officers, replace bracketed language with the following: “By accepting this Agreement, the Participant agrees and acknowledges that (i) the Company promptly will withhold from the Participant's pay the amount of taxes the Company is required to withhold upon any vesting of Shares pursuant to this Agreement, and (ii) the Participant shall make immediate payment to the Company in the amount of any tax required to be withheld by the Company in excess of the Participant's pay available for such withholding.”

VERTEX PHARMACEUTICALS INCORPORATED
2013 STOCK AND OPTION PLAN

Form of Restricted Stock Unit Award

This Agreement sets forth the terms and conditions of a Restricted Stock Unit Award granted pursuant to the provisions of the 2013 Stock and Option Plan (as it may be amended or restated, the “Plan”) of Vertex Pharmaceuticals Incorporated (the “Company”) to the Participant whose name appears below, of a contingent entitlement of the Participant to receive the number of Shares of Common Stock of the Company set forth below, pursuant to the provisions of the Plan and on the following express terms and conditions. Capitalized terms not otherwise defined herein shall have the same meanings as set forth in the Plan, and any Restricted Stock Units evidenced hereby are granted subject to the terms of the Plan.

1. Name and address of Participant to whom the Restricted Stock Unit Award is granted:

[INSERT NAME/ADDRESS]

2. Number of Shares of Common Stock in the Restricted Stock Unit Award (the “Shares”):

[_____]

3. Purchase price of Shares upon Vesting:

[_____]

4. Date of grant of the Restricted Stock Unit Award:

[_____]

5. Vesting.

5.1 Vesting Schedule. [INSERT VESTING SCHEDULE]. On each vesting date described in the preceding sentence, the Participant shall be entitled to receive at the purchase price, the applicable number of shares of Common Stock that shall thereafter be delivered by the Company to the Participant in accordance with this Agreement and the Plan within thirty days of the applicable vesting date. Except as provided in Section 5.4 of this Agreement, upon any Termination of Service of the Participant for any reason, vesting of the Shares shall immediately cease, and the unvested portion of the Restricted Stock Unit Award shall immediately be forfeited.

5.2 Death of the Participant. If the Participant dies while an Employee, Non-Employee Director, consultant or advisor of the Company or an Affiliate, the vesting of all unvested Shares subject to this Restricted Stock Unit Award shall be accelerated and shall vest on the date of death of the Participant.

5.3 Termination for Cause.

(a) If the Participant is notified that the Company is investigating or evaluating whether the Company will terminate Participant’s employment or other service to the Company for Cause, the Company may, at its election, suspend the vesting of this Restricted Stock Unit Award by written notice to the Participant. If after such notification it is determined or otherwise agreed that Participant’s service to the Company will not be terminated for Cause, vesting of the Shares shall resume pursuant to the original schedule and any Shares that would have vested during such suspension immediately shall vest.

(b) “Cause” shall mean (i) the Participant’s dishonesty or fraud, or (ii) the willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, any material breach by the Participant of any provision of any Company policy or any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), in each case as determined in good faith by the Company, which determination shall be conclusive; provided, however, that if there is a conflict between this definition of Cause and either (1) the definition of “Cause” contained in any employment agreement between the Company and the Participant or (2) the definition of “Cause” contained in any change-of-control agreement between the Company and the Participant, then such other definition shall be controlling for purposes of this Agreement.

[**5.4 Career Employment Provision.** If a Participant experiences a Termination of Service other than for Cause, and the Participant is a Qualified Participant (as defined below), then (a) an additional number of Shares equal to (i) the sum of 50% plus 10% for each full year of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate in excess of five (5) full years of service multiplied by (ii) the number of unvested Shares subject to this Restricted Stock Unit Award immediately prior to the Participant’s Termination of Service, shall vest on the date of the Termination of Service and (b) any remaining unvested Shares shall be forfeited. A “Qualified Participant” shall mean a Participant (i) who is at least fifty-five (55) years old, (ii) who has completed at least five (5) full years of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate, (iii) whose age plus full years of service [as an Employee and/or a Non-Employee Director] to the Company [or an Affiliate] is 65 or greater and (iv) who has completed a [mandatory] transitional period of employment with the Company following notice of the Termination of Service, the duration of which will be [_____].](1)

6. Agreement with respect to Tax Payments, Withholding and Sale of a Portion of Shares. The Participant acknowledges and agrees that any income or other taxes, fees or social security or comparable contributions due from the Participant with respect to the vesting of the Restricted Stock Unit Award or the issuance of Shares pursuant to this Agreement shall be the Participant’s responsibility. In connection with the foregoing, the Participant agrees that the Company shall authorize a registered broker (the “Broker”) to sell, on the next trading day after the date of vesting of any portion of the Restricted Stock Unit Award, that number of Shares as the Company instructs the Broker to sell solely to satisfy the Company’s tax withholding obligations, after deduction of the Broker’s commission, and the Broker shall remit to the Company the cash necessary in order for the Company to satisfy its withholding obligation, provided, however, that the Company shall not authorize any such sale if the Participant shall have issued a binding instruction (the “Instruction”) to the Company, in form satisfactory to the Company, which instruction may be delivered at any time prior to the 30th day after the date of grant of the Restricted Stock Unit Award, that provides that the Company shall not instruct the Broker to sell such Shares. Any such Instruction shall include an undertaking by the Participant to pay the Company the amount of any tax withholding in accordance with the Company’s policies then in effect. The Participant agrees to pay to the Company as soon as practicable, including through payroll, the amount of any tax withholding, that is for whatever reason, not satisfied by such Broker’s sale. The Participant acknowledges that this Section 6 is intended to comply with Section 10b5-1(c)(1)(i)(B) under the Securities Exchange Act of 1934, as amended, and that the delivery of the Shares shall be made by the Company after satisfaction of the tax withholding payments as set forth herein. The Participant agrees to hold the Company and the Broker harmless from all costs, damages or expenses relating to any such sale, and acknowledges that the Company and the Broker are under no obligation to arrange for such sale at any particular price. The Participant further acknowledges that the Restricted Stock Unit Award made hereunder is subject to Participant’s acceptance of the terms of this Section 6, and other terms and provisions of this Agreement.

7. Restrictions on Transfer. Except as provided in Section 10 of the Plan, this Restricted Stock Unit Award may not be sold, transferred, assigned, hypothecated, pledged, encumbered or otherwise disposed of, whether voluntarily or by operation of law, at any time before the Participant receives Shares. Any such purported transfer shall be null and void, and shall not be recognized by the Company or recorded on its books.

8. No Rights as a Shareholder Until Exercise. The Participant shall have no rights as a shareholder, including voting and dividend rights, with respect to the Restricted Stock Unit Award subject to this Agreement.

9. No Obligation to Maintain Relationship. The Participant acknowledges that: (i) the Company is not by the Plan or this Restricted Stock Unit Award obligated to continue the Participant as an Employee, Non-Employee Director, consultant or advisor of the Company or

an Affiliate; (ii) the Plan is discretionary in nature and may be modified, suspended or terminated by the Company at any time; (iii) the grant of the Restricted Stock Unit Award is a one-time benefit that does not create any contractual or other right to receive future grants of equity, or benefits in lieu thereof; (iv) all determinations with respect to any such future grants, including, but not limited to, the times when awards shall be granted, the number of shares subject to each restricted stock unit award, and the time or times when each award shall vest, will be at the sole discretion of the Company; (v) the Participant's participation in the Plan is voluntary; (vi) the value of the Restricted Stock Unit Award is an extraordinary item of compensation which is outside the scope of the Participant's employment or consulting contract, if any; and (vii) the Restricted Stock Unit Award is not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits or similar payments.

10. Plan. The Participant hereby acknowledges receipt of a copy of the Plan as presently in effect and the Prospectus with respect thereto. All of the terms and provisions of the Plan are incorporated herein by reference, and this Restricted Stock Unit Award is subject to those terms and provisions in all respects.

11. Data Privacy. By entering into this Agreement, the Participant: (i) consents to the collection, use and disclosure of personal information (which may include name, home and business contact information, personal identifiers such a date of birth and the social insurance number for tax reporting purposes, employment, position and compensation) by the Company for the purpose of administering the Plan, providing Plan recordkeeping services and facilitating the grant of options; (ii) consents to the disclosure of this information by the Company to any Affiliate of the Company for such purposes; and (iii) authorizes the Company and each Affiliate to store and transmit such information in electronic form. Some of these Affiliates are located in, and the Plan will be administered (in whole or in part) in, the United States and some or all of the personal information may become subject to the laws of, and accessible to, the authorities of the United States. The file containing the Participant's personal information will be kept at the offices of the Company or on its servers or those of its Affiliates and service providers, and only employees of the Company, its Affiliates or service providers who require it for the purposes of their duties will have access to this file. The Participant may request access to this file and the correction of inaccurate information, to the extent provided by law, by contacting •.

12. International Employees. This Restricted Stock Unit Award shall be subject to the additional terms and provisions, if any, applicable to the Participant as are set forth on an Exhibit A to this Agreement, which terms and conditions are incorporated herein by reference.

VERTEX PHARMACEUTICALS INCORPORATED

By: _____

(1) Applicable to grants made on or after February 5, 2014.

**VERTEX PHARMACEUTICALS INCORPORATED
AMENDED AND RESTATED 2006 STOCK AND OPTION PLAN**

Form of Non-Qualified Stock Option Grant

This Agreement sets forth the terms and conditions of an Option granted pursuant to the provisions of the Amended and Restated 2006 Stock and Option Plan (as it may be amended or restated, the “Plan”) of Vertex Pharmaceuticals Incorporated (the “Company”) to the Participant whose name appears below, covering the number of Shares of Common Stock of the Company set forth below, pursuant to the provisions of the Plan and on the following express terms and conditions. Capitalized terms not otherwise defined herein shall have the same meanings as set forth in the Plan, and any Options evidenced hereby are granted subject to the terms of the Plan.

1. Name and address of Participant to whom this Option is granted:

[INSERT NAME/ADDRESS]

2. Number of Shares of Common Stock subject to this Option:

[_____]

3. Purchase price of Shares subject to this Option:

[_____]

4. Date of grant of this Option:

[_____]

5. Expiration date of this Option: This Option shall expire on [_____], subject to earlier termination in the event of any Termination of Service or death of the Participant or otherwise in accordance with the provisions of the Plan. Except as provided in Section 6.5(a)(ii) of this Agreement, this Option may not be exercised later than (a) three (3) months after a Termination of Service of the Participant or (b) if the Participant dies while serving as an Employee, Non-Employee Director, consultant or advisor of the Company or an Affiliate, one (1) year after the Participant’s death.

6. Vesting.

6.1 Vesting Schedule. This Option shall vest and become exercisable, so long as the Participant continues to serve as an Employee, Non-Employee Director, consultant or adviser of the Company or an Affiliate, [INSERT VESTING SCHEDULE], except as otherwise provided in Sections 6.2, 6.3, 6.4 or 6.5 of this Agreement. The vesting of this Option shall cease immediately upon a Termination of Service of Participant.

6.2 Absence. This Option shall not vest during any period of long-term disability or personal leave of absence of the Participant from the Company or an Affiliate (as determined under applicable Company policies). If the Participant resumes employment with the Company after a personal leave of absence or long-term disability in accordance with applicable Company policies, vesting shall resume upon the resumption of eligibility, and the Option will continue vesting at the rate provided in Section 6.1 of this Agreement until fully vested. Notwithstanding the foregoing, in no event shall the term of the Option be extended beyond the date set forth in Section 5 of this Agreement.

6.3 Death of the Participant. If the Participant dies while serving as an Employee, Non-Employee Director, consultant or

advisor of the Company or an Affiliate, the vesting of all unvested Shares subject to this Option shall be accelerated, and the Option shall be exercisable as to such installments, together with any previously vested but unexercised portion of the Option, effective as of the date of death.

6.4 Termination for Cause.

(a) If the Participant's employment or other service to the Company is terminated by the Company for Cause (as defined below), the Company may, at its election, terminate the Participant's right to exercise this Option (including with respect to any vested but unexercised Shares). If the Participant is notified that the Company is investigating or evaluating whether the Company will terminate Participant's employment or other service to the Company for Cause, the Company may, at its election, suspend Participant's right to exercise this Option by written notice to the Participant. If after such notification it is determined or otherwise agreed that Participant's service to the Company will not be terminated for Cause, vesting of the Shares shall resume pursuant to the original schedule and any Shares that would have vested during such time as vesting was suspended shall immediately vest.

(b) "Cause" shall mean (i) the Participant's dishonesty or fraud, or (ii) the willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, any material breach by the Participant of any provision of any Company policy or any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), in each case as determined in good faith by the Company, which determination shall be conclusive; provided, however, that if there is a conflict between this definition of Cause and either (1) the definition of "Cause" contained in any employment agreement between the Company and the Participant or (2) the definition of "Cause" contained in any change-of-control agreement between the Company and the Participant, then such other definition shall be controlling for purposes of this Agreement.

[6.5 Career Employment Provision.

(a) If a Participant experiences a Termination of Service other than for Cause, and the Participant is a Qualified Participant (as defined below), then (i) an additional number of Shares equal to (A) the sum of 50% plus 10% for each full year of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate in excess of five (5) full years of service multiplied by (B) the number of unvested Shares subject to this Option immediately prior to the Participant's Termination of Service, shall vest; and (ii) all vested but unexercised Shares (including any shares that vested pursuant to the preceding subsection (i)) may be exercised until the expiration date of this Option as set forth in Section 5 of this Agreement.

(b) A "Qualified Participant" shall mean a Participant (i) who is at least fifty-five (55) years old, (ii) who has completed at least five (5) full years of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate, (iii) whose age plus full years of service [as an Employee and/or a Non-Employee Director] to the Company [or an Affiliate] is 65 or greater and (iv) who has completed a [mandatory] transitional period of employment with the Company following notice of the Termination of Service, the duration of which will be [_____].(1)

7. Non-Qualified Option . This Option is a Non-Qualified Option that is not intended to qualify as an ISO within the meaning of Section 422(b) of the Code.

8. Plan. The Participant hereby acknowledges receipt of a copy of the Plan as presently in effect. The text and all of the terms and provisions of the Plan are incorporated herein by reference, and this Agreement is subject to these terms and provisions in all respects.

9. Exercise. The Participant may exercise this Option in the manner set forth in Section 9 of the Plan.

10. Restrictions on Transfer. Except as provided in Section 10 of the Plan, this Option may not be sold, transferred, assigned, hypothecated, pledged, encumbered or otherwise disposed of, whether voluntarily or by operation of law. Any such purported transfer shall be null and void, and shall not be recognized by the Company.

11. International Employees. This Option shall be subject to the additional terms and provisions, if any, applicable to such Participant

as are set forth on an Exhibit A to this Agreement, which terms and conditions are incorporated herein by reference.

VERTEX PHARMACEUTICALS INCORPORATED

By: _____

(1) Applicable to grants made on or after February 5, 2014.

VERTEX PHARMACEUTICALS INCORPORATED
AMENDED AND RESTATED 2006 STOCK AND OPTION PLAN

Form of Restricted Stock Award

This Agreement sets forth the terms and conditions of a Stock Grant granted pursuant to the provisions of the Amended and Restated 2006 Stock and Option Plan (as it may be amended or restated, the “Plan”) of Vertex Pharmaceuticals Incorporated (the “Company”) to the Participant whose name appears below, for the number of Shares of Common Stock of the Company set forth below, pursuant to the provisions of the Plan and on the following express terms and conditions. Capitalized terms not otherwise defined herein shall have the same meanings as set forth in the Plan, and any Stock Grants evidenced hereby are granted subject to the terms of the Plan.

1. Name and address of Participant to whom the Shares are granted:

[INSERT NAME/ADDRESS]

2. Number of Shares of Common Stock in Stock Grant (the “Shares”):

[_____]

3. Purchase price of Shares:

[_____]

4. Date of grant of the Shares:

[_____]

5. Vesting and Company’s Repurchase Rights.

5.1 Vesting Schedule. [INSERT VESTING SCHEDULE]. Except as provided in Section 5.5 of this Agreement, upon any Termination of Service of the Participant, vesting of the Shares shall immediately cease, and the Company shall have a right to repurchase any unvested Shares from the Participant at a price per Share equal to the purchase price per Share set forth in Section 3 of this Agreement.

5.2 Death of the Participant. If the Participant dies while an Employee, Non-Employee Director, consultant or advisor of the Company or an Affiliate, the vesting of all unvested Shares subject to this Stock Grant shall be accelerated and shall vest on the date of death of the Participant.

5.3 Termination for Cause.

(a) If the Participant is notified that the Company is investigating or evaluating whether the Company will terminate Participant’s employment or other service to the Company for Cause, the Company may, at its election, suspend the vesting of any unvested Shares by written notice to the Participant (and if the Participant’s employment or other service to the Company is thereafter terminated for Cause, the Company may, at its election, repurchase any remaining unvested Shares from the Participant at a price per Share equal to the purchase price per Share set forth in Section 3 of this Agreement). If after such notification it is determined or otherwise agreed that Participant’s service to the Company will not be terminated for Cause, vesting of the Shares shall resume pursuant to the original schedule and any Shares that would have vested during such suspension immediately shall vest.

(b) “Cause” shall mean (i) the Participant’s dishonesty or fraud, or (ii) the willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, any material breach by the Participant of any provision of any Company policy or any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), in each case as determined in good faith by the Company, which determination shall be conclusive; provided, however, that if there is a conflict between this definition of Cause and either (1) the definition of “Cause” contained in any employment agreement between the Company and the Participant or (2) the definition of “Cause” contained in any change-of-control agreement between the Company and the Participant, then such other definition shall be controlling for purposes of this Agreement.

5.4 Repurchase Rights. The Company’s rights to repurchase the Shares pursuant to Sections 5.1, 5.3 or 5.5 of this Agreement shall be valid for a period of one year beginning on the date of the Termination of Service of the Participant. Notwithstanding any other provision hereof, if the Company is prohibited during such one-year period from exercising its lapsing repurchase right by applicable law, then the time period during which such repurchase right may be exercised shall be extended until the later of (a) the end of such one-year period or (b) 30 days after the Company is first not so prohibited.

[**5.5 Career Employment Provision.** If a Participant experiences a Termination of Service other than for Cause, and the Participant is a Qualified Participant (as defined below), then an additional number of Shares equal to (a) the sum of 50% plus 10% for each full year of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate in excess of five (5) full years of service multiplied by (b) the number of unvested Shares subject to this Stock Grant immediately prior to the Participant’s Termination of Service, shall vest. A “Qualified Participant” shall mean a Participant (i) who is at least fifty-five (55) years old, (ii) who has completed at least five (5) full years of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate, (iii) whose age plus full years of service [as an Employee and/or a Non-Employee Director] to the Company [or an Affiliate] is 65 or greater and (iv) who has completed a [mandatory] transitional period of employment with the Company following notice of the Termination of Service, the duration of which will be [_____]. The Company shall have the right to repurchase any remaining unvested Shares from the Participant at a price per Share equal to the purchase price per Share set forth in Section 3 of this Agreement.](1)

6. Agreement with respect to Tax Payments, Withholding and Sale of a Portion of Shares. The Participant acknowledges and agrees that any income or other taxes due from the Participant with respect to the Shares issued pursuant to this Agreement, including on account of the vesting of the Shares, shall be the Participant’s responsibility. [In connection with the foregoing, the Participant agrees that the Company shall authorize a registered broker (the “Broker”) to sell, on the next trading day after the lapse of the Company’s lapsing repurchase right, that number of Shares as the Company instructs the Broker to sell solely to satisfy the Company’s tax withholding obligations, after deduction of the Broker’s commission, and the Broker shall remit to the Company the cash necessary in order for the Company to satisfy its withholding obligation, provided, however, that the Company shall not authorize any such sale if the Participant shall have issued a binding instruction (the “Instruction”) to the Company, in form satisfactory to the Company, which instruction may be delivered at any time prior to the 30th day after the date of grant of the Shares, that provides that the Company shall not instruct the Broker to sell such Shares. Any such Instruction shall include an undertaking by the Participant to pay the Company the amount of any tax withholding in accordance with the Company’s policies then in effect. The Participant agrees to pay to the Company as soon as practicable, including through payroll, the amount of any tax withholding, that is for whatever reason, not satisfied by such Broker’s sale. The Participant acknowledges that this Section 6 is intended to comply with Section 10b5-1(c)(1)(i)(B) under the Securities Exchange Act of 1934, as amended, and that the delivery of the Shares shall be made by the Company after satisfaction of the tax withholding payments as set forth in Section 8 of this Agreement. The Participant agrees to hold the Company and the Broker harmless from all costs, damages or expenses relating to any such sale, and acknowledges that the Company and the Broker are under no obligation to arrange for such sale at any particular price. The Participant further acknowledges that the grant of Shares made hereunder is subject to Participant’s acceptance of the terms of this Section 6, and other terms and provisions of this Agreement.](2)

7. Restrictions on Transfer. Except as provided in Section 10 of the Plan, the Shares may not be sold, transferred, assigned, hypothecated, pledged, encumbered or otherwise disposed of, whether voluntarily or by operation of law, at any time before they become vested Shares pursuant to Section 5 of this Agreement. Any such purported transfer shall be null and void, and shall not be recognized by the Company or recorded on its books.

8. Escrow. All Shares that have not vested pursuant to Section 5 of this Agreement, together with any securities distributed in respect thereof, such as through a stock split or other recapitalization, shall be held by the Company in escrow until such Shares shall have vested and the deposit required for tax withholding has been made pursuant to Section 6 of this Agreement. The Company promptly shall release vested Shares from escrow upon satisfaction of the foregoing conditions.

9. Plan. The Participant hereby acknowledges receipt of a copy of the Plan as presently in effect and the Prospectus with respect thereto. All of the terms and provisions of the Plan are incorporated herein by reference, and this Restricted Stock Award is subject to those terms and provisions in all respects.

VERTEX PHARMACEUTICALS INCORPORATED

By: _____

(1) Applicable to grants made on or after February 5, 2014.

(2) For Section 16 Officers, replace bracketed language with the following: “By accepting this Agreement, the Participant agrees and acknowledges that (i) the Company promptly will withhold from the Participant's pay the amount of taxes the Company is required to withhold upon any vesting of Shares pursuant to this Agreement, and (ii) the Participant shall make immediate payment to the Company in the amount of any tax required to be withheld by the Company in excess of the Participant's pay available for such withholding.”

VERTEX PHARMACEUTICALS INCORPORATED
AMENDED AND RESTATED 2006 STOCK AND OPTION PLAN

Form of Restricted Stock Unit Award

This Agreement sets forth the terms and conditions of a Restricted Stock Unit Award granted pursuant to the provisions of the Amended and Restated 2006 Stock and Option Plan (as it may be amended or restated, the “Plan”) of Vertex Pharmaceuticals Incorporated (the “Company”) to the Participant whose name appears below, of a contingent entitlement of the Participant to receive the number of Shares of Common Stock of the Company set forth below, pursuant to the provisions of the Plan and on the following express terms and conditions. Capitalized terms not otherwise defined herein shall have the same meanings as set forth in the Plan, and any Restricted Stock Units evidenced hereby are granted subject to the terms of the Plan.

1. Name and address of Participant to whom the Restricted Stock Unit Award is granted:

[INSERT NAME/ADDRESS]

2. Number of Shares of Common Stock in the Restricted Stock Unit Award (the “Shares”):

[_____]

3. Purchase price of Shares upon Vesting:

[_____]

4. Date of grant of the Restricted Stock Unit Award:

[_____]

5. Vesting.

5.1 Vesting Schedule. [INSERT VESTING SCHEDULE]. On each vesting date described in the preceding sentence, the Participant shall be entitled to receive at the purchase price, the applicable number of shares of Common Stock that shall thereafter be delivered by the Company to the Participant in accordance with this Agreement and the Plan within thirty days of the applicable vesting date. Except as provided in Section 5.4 of this Agreement, upon any Termination of Service of the Participant for any reason, vesting of the Shares shall immediately cease, and the unvested portion of the Restricted Stock Unit Award shall immediately be forfeited.

5.2 Death of the Participant. If the Participant dies while an Employee, Non-Employee Director, consultant or advisor of the Company or an Affiliate, the vesting of all unvested Shares subject to this Restricted Stock Unit Award shall be accelerated and shall vest on the date of death of the Participant.

5.3 Termination for Cause.

(a) If the Participant is notified that the Company is investigating or evaluating whether the Company will terminate Participant’s employment or other service to the Company for Cause, the Company may, at its election, suspend the vesting of this Restricted Stock Unit Award by written notice to the Participant. If after such notification it is determined or otherwise agreed that Participant’s service to the Company will not be terminated for Cause, vesting of the Shares shall resume pursuant to the original schedule and any Shares that would have vested during such suspension immediately shall vest.

(b) “Cause” shall mean (i) the Participant’s dishonesty or fraud, or (ii) the willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, any material breach by the Participant of any provision of any Company policy or any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), in each case as determined in good faith by the Company, which determination shall be conclusive; provided, however, that if there is a conflict between this definition of Cause and either (1) the definition of “Cause” contained in any employment agreement between the Company and the Participant or (2) the definition of “Cause” contained in any change-of-control agreement between the Company and the Participant, then such other definition shall be controlling for purposes of this Agreement.

[**5.4 Career Employment Provision.** If a Participant experiences a Termination of Service other than for Cause, and the Participant is a Qualified Participant (as defined below), then (a) an additional number of Shares equal to (i) the sum of 50% plus 10% for each full year of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate in excess of five (5) full years of service multiplied by (ii) the number of unvested Shares subject to this Restricted Stock Unit Award immediately prior to the Participant’s Termination of Service, shall vest on the date of the Termination of Service and (b) any remaining unvested Shares shall be forfeited. A “Qualified Participant” shall mean a Participant (i) who is at least fifty-five (55) years old, (ii) who has completed at least five (5) full years of service as an Employee [and/or a Non-Employee Director] to the Company or an Affiliate, (iii) whose age plus full years of service [as an Employee and/or a Non-Employee Director] to the Company [or an Affiliate] is 65 or greater and (iv) who has completed a [mandatory] transitional period of employment with the Company following notice of the Termination of Service, the duration of which will be [_____].](1)

6. Agreement with respect to Tax Payments, Withholding and Sale of a Portion of Shares. The Participant acknowledges and agrees that any income or other taxes, fees or social security or comparable contributions due from the Participant with respect to the vesting of the Restricted Stock Unit Award or the issuance of Shares pursuant to this Agreement shall be the Participant’s responsibility. In connection with the foregoing, the Participant agrees that the Company shall authorize a registered broker (the “Broker”) to sell, on the next trading day after the date of vesting of any portion of the Restricted Stock Unit Award, that number of Shares as the Company instructs the Broker to sell solely to satisfy the Company’s tax withholding obligations, after deduction of the Broker’s commission, and the Broker shall remit to the Company the cash necessary in order for the Company to satisfy its withholding obligation, provided, however, that the Company shall not authorize any such sale if the Participant shall have issued a binding instruction (the “Instruction”) to the Company, in form satisfactory to the Company, which instruction may be delivered at any time prior to the 30th day after the date of grant of the Restricted Stock Unit Award, that provides that the Company shall not instruct the Broker to sell such Shares. Any such Instruction shall include an undertaking by the Participant to pay the Company the amount of any tax withholding in accordance with the Company’s policies then in effect. The Participant agrees to pay to the Company as soon as practicable, including through payroll, the amount of any tax withholding, that is for whatever reason, not satisfied by such Broker’s sale. The Participant acknowledges that this Section 6 is intended to comply with Section 10b5-1(c)(1)(i)(B) under the Securities Exchange Act of 1934, as amended, and that the delivery of the Shares shall be made by the Company after satisfaction of the tax withholding payments as set forth herein. The Participant agrees to hold the Company and the Broker harmless from all costs, damages or expenses relating to any such sale, and acknowledges that the Company and the Broker are under no obligation to arrange for such sale at any particular price. The Participant further acknowledges that the Restricted Stock Unit Award made hereunder is subject to Participant’s acceptance of the terms of this Section 6, and other terms and provisions of this Agreement.

7. Restrictions on Transfer. Except as provided in Section 10 of the Plan, this Restricted Stock Unit Award may not be sold, transferred, assigned, hypothecated, pledged, encumbered or otherwise disposed of, whether voluntarily or by operation of law, at any time before the Participant receives Shares. Any such purported transfer shall be null and void, and shall not be recognized by the Company or recorded on its books.

8. No Rights as a Shareholder Until Exercise. The Participant shall have no rights as a shareholder, including voting and dividend rights, with respect to the Restricted Stock Unit Award subject to this Agreement.

9. No Obligation to Maintain Relationship. The Participant acknowledges that: (i) the Company is not by the Plan or this Restricted Stock Unit Award obligated to continue the Participant as an Employee, Non-Employee Director, consultant or advisor of the Company or

an Affiliate; (ii) the Plan is discretionary in nature and may be modified, suspended or terminated by the Company at any time; (iii) the grant of the Restricted Stock Unit Award is a one-time benefit that does not create any contractual or other right to receive future grants of equity, or benefits in lieu thereof; (iv) all determinations with respect to any such future grants, including, but not limited to, the times when awards shall be granted, the number of shares subject to each restricted stock unit award, and the time or times when each award shall vest, will be at the sole discretion of the Company; (v) the Participant's participation in the Plan is voluntary; (vi) the value of the Restricted Stock Unit Award is an extraordinary item of compensation which is outside the scope of the Participant's employment or consulting contract, if any; and (vii) the Restricted Stock Unit Award is not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits or similar payments.

10. Plan. The Participant hereby acknowledges receipt of a copy of the Plan as presently in effect and the Prospectus with respect thereto. All of the terms and provisions of the Plan are incorporated herein by reference, and this Restricted Stock Unit Award is subject to those terms and provisions in all respects.

11. Data Privacy. By entering into this Agreement, the Participant: (i) consents to the collection, use and disclosure of personal information (which may include name, home and business contact information, personal identifiers such a date of birth and the social insurance number for tax reporting purposes, employment, position and compensation) by the Company for the purpose of administering the Plan, providing Plan recordkeeping services and facilitating the grant of options; (ii) consents to the disclosure of this information by the Company to any Affiliate of the Company for such purposes; and (iii) authorizes the Company and each Affiliate to store and transmit such information in electronic form. Some of these Affiliates are located in, and the Plan will be administered (in whole or in part) in, the United States and some or all of the personal information may become subject to the laws of, and accessible to, the authorities of the United States. The file containing the Participant's personal information will be kept at the offices of the Company or on its servers or those of its Affiliates and service providers, and only employees of the Company, its Affiliates or service providers who require it for the purposes of their duties will have access to this file. The Participant may request access to this file and the correction of inaccurate information, to the extent provided by law, by contacting •.

12. International Employees. This Restricted Stock Unit Award shall be subject to the additional terms and provisions, if any, applicable to the Participant as are set forth on an Exhibit A to this Agreement, which terms and conditions are incorporated herein by reference.

VERTEX PHARMACEUTICALS INCORPORATED

By: _____

(1) Applicable to grants made on or after February 5, 2014.

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 units, 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, 2015, the Board of Directors determined the cash bonus awards related to the fiscal year ended December 31, 2014 and annual salaries effective February 2015.

Subsidiaries of Vertex Pharmaceuticals Incorporated

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

Vertex Securities Corporation, a Massachusetts corporation

Vertex Pharmaceuticals (Distribution) Incorporated, a Delaware corporation

Vertex Pharmaceuticals (Cayman) Limited, a Cayman Islands company (3)

Vertex Pharmaceuticals (Cayman 509) Limited, a Cayman Islands company

Vertex Pharmaceuticals (Cayman 765) Limited, a Cayman Islands company

Vertex Pharmaceuticals (Cayman 787) Limited, a Cayman Islands company

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

Vertex Pharmaceuticals (Canada) Incorporated, a Canadian company (1)

Vertex Pharmaceuticals (Singapore) Pte. Ltd., a Singapore company

Vertex Pharmaceuticals R&D (Shanghai) Co., Ltd. (2)

Vertex Holdings, Inc., a Delaware corporation

Vertex Pharmaceuticals (Europe) Limited, a United Kingdom company (5)

Vertex Pharmaceuticals (Switzerland) Sàrl, a Swiss company

Vertex Pharmaceuticals (Ireland) Limited, an Irish company (6)

Vertex Pharmaceuticals (U.K.) Limited, a United Kingdom company (6)

Vertex Pharmaceuticals (France) SAS, a French company

Vertex Pharmaceuticals (Germany) GmbH, a German company

Vertex Pharmaceuticals (Australia) Pty. Ltd., an Australian company

Vertex Pharmaceuticals (Spain), S.L., a Spanish company

Vertex Pharmaceuticals (Netherlands) B.V., a Dutch company

Vertex Pharmaceuticals (Italy) S.r.L., an Italian company

Vertex (Brazil) Participações LTDA, a Brazilian company (4)

(1) a subsidiary of Vertex Pharmaceuticals (Delaware) LLC

(2) a subsidiary of Vertex Pharmaceuticals (Singapore) Pte. Ltd.

(3) a subsidiary of Vertex Holdings, Inc.

(4) a subsidiary of Vertex Pharmaceuticals (UK) Limited

(5) a subsidiary of Vertex Pharmaceuticals (Cayman) Limited

(6) a subsidiary of Vertex Pharmaceuticals (Europe) Limited

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- Registration Statement (Form S-3 No. 333-186993) of Vertex Pharmaceuticals Incorporated,
- Registration Statement (Form S-8 No. 333-104362) pertaining to the Vertex Pharmaceuticals 1996 Stock and Option Plan, as amended,
- Registration Statement (Form S-8 Nos. 333-134482, 333-150946, 333-160442, 333-166803 and 333-184787) pertaining to the Vertex Pharmaceuticals Incorporated Amended and Restated 2006 Stock and Option Plan (formerly known as the Vertex Pharmaceuticals Incorporated 2006 Stock and Option Plan),
- Registration Statement (Form S-8 No. 333-184784) pertaining to the Vertex Pharmaceuticals Incorporated Employee Stock Purchase Plan, and
- Registration Statement (Form S-8 Nos. 333-188737 and 333-197466) pertaining to the Vertex Pharmaceuticals Incorporated 2013 Stock and Option Plan ;

of our reports dated February 13, 2015, 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) of Vertex Pharmaceuticals Incorporated for the year ended December 31, 2014.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 13, 2015

CERTIFICATION

I, Jeffrey M. Leiden, 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 13, 2015

/s/ Jeffrey M. Leiden

Jeffrey M. Leiden
Chief Executive Officer and President

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 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 13, 2015

/s/ Ian F. Smith

Ian F. Smith
Executive Vice President and Chief Financial Officer

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, 2014 (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 13, 2015

/s/ Jeffrey M. Leiden

Jeffrey M. Leiden
Chief Executive Officer and President

Date: February 13, 2015

/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.
