

VERTEX PHARMACEUTICALS INC / MA
Form 10-Q
April 27, 2018
Table of Contents

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

FORM 10-Q

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

FOR THE QUARTERLY PERIOD ENDED MARCH 31, 2018

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 04-3039129
(State or other jurisdiction of (I.R.S. Employer
incorporation or organization) Identification No.)
50 Northern Avenue, Boston, Massachusetts 02210
(Address of principal executive offices) (Zip Code)
Registrant's telephone number, including area code (617) 341-6100

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 whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

Emerging growth company (Do not check if a smaller reporting company)

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Common Stock, par value \$0.01 per share 254,830,232

Class

Outstanding at April 20, 2018

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 FORM 10-Q
 FOR THE QUARTER ENDED MARCH 31, 2018

TABLE OF CONTENTS

	Page
<u>Part I. Financial Information</u>	
<u>Item 1. Financial Statements</u>	<u>2</u>
<u>Condensed Consolidated Financial Statements (unaudited)</u>	<u>2</u>
Condensed Consolidated Statements of Operations - Three Months Ended March 31, 2018 and 2017	<u>2</u>
Condensed Consolidated Statements of Comprehensive Income - Three Months Ended March 31, 2018 and 2017	<u>3</u>
Condensed Consolidated Balance Sheets - March 31, 2018 and December 31, 2017	<u>4</u>
Condensed Consolidated Statements of Shareholders' Equity and Noncontrolling Interest - Three Months Ended March 31, 2018 and 2017	<u>5</u>
Condensed Consolidated Statements of Cash Flows - Three Months Ended March 31, 2018 and 2017	<u>6</u>
<u>Notes to Condensed Consolidated Financial Statements</u>	<u>7</u>
<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>35</u>
<u>Item 3. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>46</u>
<u>Item 4. Controls and Procedures</u>	<u>47</u>
<u>Part II. Other Information</u>	
<u>Item 1. Legal Proceedings</u>	<u>47</u>
<u>Item 1A. Risk Factors</u>	<u>47</u>
<u>Item 2. Unregistered Sales of Equity Securities and Use of Proceeds</u>	<u>48</u>
<u>Item 6. Exhibits</u>	<u>49</u>
<u>Signatures</u>	<u>50</u>

“We,” “us,” “Vertex” and the “Company” as used in this Quarterly Report on Form 10-Q refer to Vertex Pharmaceuticals Incorporated, a Massachusetts corporation, and its subsidiaries.

“Vertex,” “KALYDECO” “ORKAMBI” and “SYMDEKO” are registered trademarks of Vertex. Other brands, names and trademarks contained in this Quarterly Report on Form 10-Q are the property of their respective owners.

Table of Contents

Part I. Financial Information

Item 1. Financial Statements

VERTEX PHARMACEUTICALS INCORPORATED

Condensed Consolidated Statements of Operations

(unaudited)

(in thousands, except per share amounts)

	Three Months Ended	
	March 31,	
	2018	2017
Revenues:		
Product revenues, net	\$637,729	\$480,622
Royalty revenues	1,356	1,551
Collaborative revenues	1,714	232,545
Total revenues	640,799	714,718
Costs and expenses:		
Cost of sales	71,613	46,988
Research and development expenses	310,553	273,563
Sales, general and administrative expenses	129,808	113,326
Restructuring (income) expenses	(76)	9,999
Total costs and expenses	511,898	443,876
Income from operations	128,901	270,842
Interest expense, net	(11,097)	(16,765)
Other income (expense), net	96,838	(544)
Income before (benefit from) provision for income taxes	214,642	253,533
(Benefit from) provision for income taxes	(12,659)	3,985
Net income	227,301	249,548
Income attributable to noncontrolling interest	(17,038)	(1,792)
Net income attributable to Vertex	\$210,263	\$247,756

Amounts per share attributable to Vertex common shareholders:

Net income:

Basic \$0.83 \$1.01

Diluted \$0.81 \$0.99

Shares used in per share calculations:

Basic 253,231 246,024

Diluted 258,526 248,700

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

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED

Condensed Consolidated Statements of Comprehensive Income

(unaudited)

(in thousands)

	Three Months Ended March 31,	
	2018	2017
Net income	\$227,301	\$249,548
Changes in other comprehensive loss:		
Unrealized holding (losses) gains on marketable securities, net of tax of zero and \$(1.0) million, respectively	(460)	3,534
Unrealized losses on foreign currency forward contracts, net of tax of \$0.3 million and \$0.9 million, respectively	(862)	(6,681)
Foreign currency translation adjustment	(2,729)	(2,001)
Total changes in other comprehensive loss	(4,051)	(5,148)
Comprehensive income	223,250	244,400
Comprehensive income attributable to noncontrolling interest	(17,038)	(1,792)
Comprehensive income attributable to Vertex	\$206,212	\$242,608

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

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED

Condensed Consolidated Balance Sheets

(unaudited)

(in thousands, except share and per share amounts)

	March 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	\$1,995,893	\$1,665,412
Marketable securities	481,124	423,254
Restricted cash and cash equivalents (VIE)	9,573	1,489
Accounts receivable, net	327,294	281,343
Inventories	117,346	111,830
Prepaid expenses and other current assets	109,886	165,635
Total current assets	3,041,116	2,648,963
Property and equipment, net	800,670	789,437
Intangible assets	29,000	29,000
Goodwill	50,384	50,384
Other assets	31,804	28,230
Total assets	\$3,952,974	\$3,546,014
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$74,062	\$73,994
Accrued expenses	411,231	443,961
Capital lease obligations, current portion	16,919	22,531
Early access sales accrual	268,446	232,401
Other liabilities, current portion	56,654	34,373
Total current liabilities	827,312	807,260
Capital lease obligations, excluding current portion	16,911	20,496
Deferred tax liability	9,636	6,341
Construction financing lease obligation, excluding current portion	561,295	563,406
Advance from collaborator, excluding current portion	79,537	78,431
Other liabilities, excluding current portion	27,462	27,774
Total liabilities	1,522,153	1,503,708
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, \$0.01 par value; 1,000,000 shares authorized; none issued and outstanding	—	—
Common stock, \$0.01 par value; 500,000,000 shares authorized; 254,934,949 and 253,253,362 shares issued; and 254,867,865 and 253,253,362 shares outstanding, respectively	2,541	2,512
Additional paid-in capital	7,314,369	7,157,362
Accumulated other comprehensive loss	(39,743)	(11,572)
Accumulated deficit	(4,876,111)	(5,119,723)
Total Vertex shareholders' equity	2,401,056	2,028,579
Noncontrolling interest	29,765	13,727
Total shareholders' equity	2,430,821	2,042,306
Total liabilities and shareholders' equity	\$3,952,974	\$3,546,014

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

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED

Condensed Consolidated Statements of Shareholders' Equity and Noncontrolling Interest

(unaudited)

(in thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)		Total Vertex Shareholders' Equity	Noncontrolling Interest	Total Shareholders' Equity
	Shares	Amount			Accumulated Deficit			
Balance at December 31, 2016	248,301	\$2,450	\$6,506,795	\$21,173	\$(5,373,836)	\$1,156,582	\$181,609	\$1,338,191
Cumulative effect adjustment for adoption of new accounting guidance	—	—	9,371	—	(9,371)	—	—	—
Other comprehensive loss, net of tax	—	—	—	(5,148)	—	(5,148)	—	(5,148)
Net income	—	—	—	—	247,756	247,756	1,792	249,548
Issuance of common stock under benefit plans	590	9	31,019	—	—	31,028	—	31,028
Stock-based compensation expense	—	—	69,790	—	—	69,790	—	69,790
Other VIE activity	—	—	—	—	—	—	(616)	(616)
Balance at March 31, 2017	248,891	\$2,459	\$6,616,975	\$16,025	\$(5,135,451)	\$1,500,008	\$182,785	\$1,682,793
Balance at December 31, 2017	253,253	\$2,512	\$7,157,362	\$(11,572)	\$(5,119,723)	\$2,028,579	\$13,727	\$2,042,306
Cumulative effect adjustment for adoption of new accounting guidance	—	—	—	(24,120)	33,349	9,229	—	9,229
Other comprehensive loss, net of tax	—	—	—	(4,051)	—	(4,051)	—	(4,051)
Net income	—	—	—	—	210,263	210,263	17,038	227,301
Repurchases of common stock	(67)	(1)	(11,250)	—	—	(11,251)	—	(11,251)
Issuance of common stock	1,682	30	89,656	—	—	89,686	—	89,686

under benefit plans								
Stock-based compensation expense	—	—	78,601	—	—	78,601	—	78,601
Other VIE activity	—	—	—	—	—	—	(1,000)	(1,000)
Balance at March 31, 2018	254,868	\$2,541	\$7,314,369	\$(39,743)	\$(4,876,111)	\$2,401,056	\$29,765	\$2,430,821

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

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED

Condensed Consolidated Statements of Cash Flows

(unaudited)

(in thousands)

	Three Months Ended March 31,	
	2018	2017
Cash flows from operating activities:		
Net income	\$227,301	\$249,548
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock-based compensation expense	78,136	69,439
Depreciation expense	16,343	14,850
Write-downs of inventories to net realizable value	3,619	3,787
Deferred income taxes	3,587	1,212
Impairment of property and equipment	—	1,946
Unrealized gain on equity securities	(95,458)) —
Other non-cash items, net	5,827	(5,152)
Changes in operating assets and liabilities:		
Accounts receivable, net	(13,473)	) (7,798)
Inventories	(8,208)	) (7,894)
Prepaid expenses and other assets	25,482	(44,498)
Accounts payable	2,154	717
Accrued expenses and other liabilities	7,347	(10,465)
Net cash provided by operating activities	252,657	265,692
Cash flows from investing activities:		
Purchases of marketable securities	(38,653)	) (248,273)
Maturities of marketable securities	94,365	98,393
Expenditures for property and equipment	(29,279)	) (11,099)
Investment in equity securities	(21,500)) —
Net cash provided by (used in) investing activities	4,933	(160,979)
Cash flows from financing activities:		
Issuances of common stock under benefit plans	88,403	11,249
Repurchase of common stock	(10,000)) —
Payments on revolving credit facility	—	(300,000)
Advance from collaborator	2,500	5,000
Payments on capital lease obligations	(9,197)	) (4,703)
Proceeds related to construction financing lease obligation	9,566	—
Repayments of advanced funding	(1,182)	) (994)
Other financing activities	(1,134)	) (117)
Net cash provided by (used in) financing activities	78,956	(289,565)
Effect of changes in exchange rates on cash	1,656	1,388
Net increase (decrease) in cash and cash equivalents	338,202	(183,464)
Cash, cash equivalents and restricted cash—beginning of period	1,667,526	1,231,707
Cash, cash equivalents and restricted cash—end of period	\$2,005,728	\$1,048,243
Supplemental disclosure of cash flow information:		
Cash paid for interest	\$16,825	\$17,527
Cash paid for income taxes	\$1,897	\$1,164
Capitalization of costs related to construction financing lease obligation	\$3,716	\$12,549

Issuances of common stock from employee benefit plans receivable	\$2,124	\$19,847
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The accompanying notes are an integral part of these condensed consolidated financial statements.

6

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

A. Basis of Presentation and Accounting Policies

Basis of Presentation

The accompanying condensed consolidated financial statements are unaudited and have been prepared by Vertex Pharmaceuticals Incorporated (“Vertex” or the “Company”) in accordance with accounting principles generally accepted in the United States of America (“GAAP”).

The condensed consolidated financial statements reflect the operations of (i) the Company, (ii) its wholly-owned subsidiaries and (iii) consolidated variable interest entities (VIEs). All material intercompany balances and transactions have been eliminated. The Company operates in one segment, pharmaceuticals. As of September 30, 2017, the Company deconsolidated Parion Sciences, Inc. (“Parion”), a VIE the Company had consolidated since 2015. The Company's condensed consolidated statement of operations for the interim period ended March 31, 2018 excludes Parion. Please refer to Note B, “Collaborative Arrangements and Acquisitions,” in the the Company’s Annual Report on Form 10-K for the year ended December 31, 2017 that was filed with the Securities and Exchange Commission (the “SEC”) on February 15, 2018 (the “2017 Annual Report on Form 10-K”) for further information regarding the deconsolidation of Parion.

Certain information and footnote disclosures normally included in the Company’s annual financial statements have been condensed or omitted. These interim financial statements, in the opinion of management, reflect all normal recurring adjustments necessary for a fair presentation of the financial position and results of operations for the interim periods ended March 31, 2018 and 2017.

The results of operations for the interim periods are not necessarily indicative of the results of operations to be expected for the full fiscal year. These interim financial statements should be read in conjunction with the audited financial statements for the year ended December 31, 2017, which are contained in the 2017 Annual Report on Form 10-K.

Use of Estimates

The preparation of condensed consolidated financial statements in accordance with 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 condensed consolidated financial statements, and the amounts of revenues and expenses during the reported periods. Significant estimates in these condensed consolidated financial statements have been made in connection with the calculation of revenues, inventories, research and development expenses, stock-based compensation expense, the fair value of intangible assets, goodwill, contingent consideration, noncontrolling interest, the consolidation and deconsolidation of VIEs, leases, the fair value of cash flow hedges, deferred tax asset valuation allowances 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.

Recently Adopted Accounting Standards

Revenue Recognition

In 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, Revenues from Contracts with Customers (Topic 606) (“ASC 606”). The new guidance became effective January 1, 2018. ASC 606 applies a more principles-based approach to recognizing revenue. Under ASC 606, revenue is recognized when a customer obtains control of promised goods or services and is recognized in an amount that reflects the consideration that an entity expects to receive in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The Company adopted ASC 606 on January 1, 2018 using the modified-retrospective adoption method for all contracts that were not completed as of the date of adoption. Under the modified-retrospective method, the cumulative effect of applying the standard was recognized within “Accumulated deficit” on the condensed

consolidated balance sheet as of January 1, 2018.

For all reporting periods, the Company has not disclosed the value of unsatisfied performance obligations for all product revenue contracts with an original expected length of one year or less, which is an optional exemption that is permitted under

7

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

the adoption rules.

Based on the Company's review of existing customer contracts as of January 1, 2018, the Company concluded that the only significant impact that the adoption of ASC 606 had on the Company's financial statements relates to shipments of ORKAMBI under early access programs in France. Prior to the adoption of ASC 606, the Company did not recognize revenue on the proceeds received from sales of ORKAMBI under early access programs in France because the price was not fixed or determinable based on the status of ongoing pricing discussions. As of January 1, 2018, the Company recorded a cumulative effect adjustment to its accumulated deficit of \$8.3 million related to the adoption of ASC 606, which primarily represented the Company's estimated amount of consideration it expects to retain related to these shipments that will not be subject to a significant reversal in amounts recognized, net of costs previously deferred related to these shipments. Please refer to Note B, "Revenue Recognition" for further information.

The Company concluded that the remaining \$6.9 million that was recorded as deferred revenue as of December 31, 2017 related to the Company's sale of its HIV protease inhibitor royalty stream in 2008 is not subject to ASC 606 because it was initially accounted for pursuant to ASC 470, Debt, which is not under the scope of ASC 606. The Company will continue to recognize the payment received as royalty revenues over the expected life of the collaboration agreement with GlaxoSmithKline plc based on the units-of-revenue method.

The cumulative effect of applying ASC 606 to the Company's contracts with customers that were not completed as of January 1, 2018 was as follows:

	Balance as of December 31, 2017	Adjustments	Balance as of January 1, 2018
Assets	(in thousands)		
Accounts receivable, net	\$281,343	\$ 29,881	\$311,224
Inventories	111,830	(90)	111,740
Prepaid expenses and other current assets	165,635	(17,166)	148,469
Total assets	\$3,546,014	\$ 12,625	\$3,558,639
Liabilities and Shareholders' Equity			
Accrued expenses	\$443,961	\$ 8,586	\$452,547
Early access sales accrual	232,401	(7,273)	225,128
Other liabilities, current portion	34,373	2,083	36,456
Accumulated other comprehensive loss	(11,572)	949	(10,623)
Accumulated deficit	(5,119,723)	8,280	(5,111,443)
Total liabilities and shareholders' equity	\$3,546,014	\$ 12,625	\$3,558,639

The impact of adoption on the Company's condensed consolidated balance sheet as of March 31, 2018 was as follows:

	As of March 31, 2018		
	As Reported under ASC 606	Balances without Adoption of ASC 606	Effect of Change Higher/(Lower)
Assets	(in thousands)		
Accounts receivable, net	\$327,294	\$294,142	\$ 33,152
Inventories	117,346	117,414	(68)
Prepaid expenses and other current assets	109,886	128,818	(18,932)
Total assets	\$3,952,974	\$3,938,822	\$ 14,152
Liabilities and Shareholders' Equity			
Accrued expenses	411,231	408,014	3,217

Early access sales accrual	268,446	278,957	(10,511)
Other liabilities, current portion	56,654	48,026	8,628
Accumulated other comprehensive loss	(39,743)	(41,148)	1,405
Accumulated deficit	(4,876,111)	(4,887,524)	11,413
Total liabilities and shareholders' equity	\$3,952,974	\$3,938,822	\$ 14,152

8

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

The impact of adoption on the Company's condensed consolidated statement of operations for the three months ended March 31, 2018 was as follows:

	Three Months Ended March 31, 2018		
	As Reported under ASC 606	Balances without Adoption of ASC 606	Effect of Change Higher/(Lower)
	(in thousands)		
Product revenues, net	\$637,729	\$633,064	\$ 4,665
Cost of sales	71,613	70,081	1,532
Income from operations	128,901	125,768	3,133
Net income attributable to Vertex	\$210,263	\$207,130	\$ 3,133

Amounts per share attributable to Vertex common shareholders:

Net income:			
Basic	\$0.83	\$0.82	\$ 0.01
Diluted	\$0.81	\$0.80	\$ 0.01

ASC 606 did not have an aggregate impact on the Company's net cash provided by operating activities, but resulted in offsetting changes in certain assets and liabilities presented within net cash provided by operating activities in the Company's condensed consolidated statement of cash flows, as reflected in the above tables.

Equity Investments

In 2016, the FASB issued ASU No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities ("ASU 2016-01"). ASU 2016-01 amended guidance related to the recording of financial assets and financial liabilities. Under the amended guidance, equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of an investee) are to be measured at fair value with changes in fair value recognized in net income (loss). However, an entity has the option to measure equity investments without readily determinable fair values (i) at fair value or (ii) at cost adjusted for changes in observable prices minus impairment. Changes in measurement under either alternative will be recognized in net income (loss). The amended guidance became effective January 1, 2018 and required the modified-retrospective adoption approach. As of January 1, 2018, the Company held publicly traded equity investments and equity investments accounted for under the cost method. In the first quarter of 2018, the Company recorded a \$25.1 million cumulative effect adjustment to "Accumulated deficit" related to its publicly traded equity investments equal to the unrealized gain, net of tax, that was recorded in "Accumulated other comprehensive loss" as of December 31, 2017. The adoption of ASU 2016-01 had no effect on the Company's equity investments accounted for under the cost method because the original cost basis of these investments was recorded on the Company's condensed consolidated balance sheet as of December 31, 2017. In the three months ended March 31, 2018, the Company recorded income of \$95.5 million to "Other income (expense), net," in its condensed consolidated statement of operations related to the change in fair value of its equity investments.

Stock-Based Compensation

In 2017, the FASB issued ASU 2017-09, Compensation — Stock Compensation (Topic 718) ("ASU 2017-09") related to the scope of stock option modification accounting to reduce diversity in practice and provide clarity regarding existing guidance. The new accounting guidance was effective January 1, 2018. The Company does not expect the adoption of ASU 2017-09 to have a significant effect on its condensed consolidated financial statements in future periods and had no impact in the three months ended March 31, 2018.

Goodwill

In 2017, the FASB issued ASU 2017-04, Intangibles — Goodwill and Other (Topic 350) (“ASU 2017-04”) related to measurements of goodwill. The amended guidance modifies the concept of impairment from the condition that exists when the carrying amount of goodwill exceeds its implied fair value to the condition that exists when the carrying amount of a reporting unit exceeds its fair value, which eliminates Step 2 from the goodwill impairment test. An entity would recognize

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 Notes to Condensed Consolidated Financial Statements
 (unaudited)

an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The new accounting guidance is required for annual or interim goodwill impairment tests conducted after January 1, 2020. The Company early adopted this new guidance and will utilize this approach for annual and interim goodwill impairment tests conducted after January 1, 2018. The Company does not expect the adoption of this guidance to have a significant effect on its condensed consolidated financial statements.

Intra-Entity Transfers

In 2016, the FASB issued ASU No. 2016-16, Intra-Entity Transfers of Assets Other Than Inventory ("ASU 2016-16"). ASU 2016-16 removes the previous exception in GAAP prohibiting entities from recognizing current and deferred income tax expenses or benefits related to the transfer of assets, other than inventory, within the consolidated entity. The exception to defer the recognition of any tax impact on the transfer of inventory within the consolidated entity until it is sold to a third party remains unaffected. The amended guidance became effective January 1, 2018. In the first quarter of 2018, upon adoption of ASU 2016-16, the Company recorded a deferred tax asset and corresponding full valuation allowance of \$204.7 million equal to the unamortized cost of intellectual property transferred to the United Kingdom in 2014 multiplied by an appropriate statutory rate. There was no cumulative effect adjustment to accumulated deficit using the modified-retrospective adoption approach.

Cash Flows - Restricted Cash

In 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows (Topic 230) Restricted Cash ("ASU 2016-18"). ASU 2016-18 requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents and restricted cash. Therefore, amounts described as restricted cash should be included with cash and cash equivalents when reconciling the beginning of period and end of period amounts shown on the statement of cash flows. The amended guidance became effective January 1, 2018 and is effective on a retrospective basis. The cash, cash equivalents and restricted cash at the beginning and ending of each period presented in the Company's condensed consolidated statements of cash flows for the three months ended March 31, 2018 and 2017 consisted of the following balances from the Company's condensed consolidated balance sheets:

	Three Months Ended March 31, 2018		Three Months Ended March 31, 2017	
	Beginning of period	End of period	Beginning of period	End of period
	(in thousands)			
Cash and cash equivalents	\$1,665,412	\$1,995,893	\$1,183,945	\$1,003,679
Restricted cash and cash equivalents (VIE)	1,489	9,573	47,762	44,564
Prepaid expenses and other current assets	625	262	—	—
Cash, cash equivalents and restricted cash per statement of cash flows	\$1,667,526	\$2,005,728	\$1,231,707	\$1,048,243

The Company's restricted cash is classified in "Prepaid expenses and other current assets" in its condensed consolidated balance sheets. The Company has recorded its VIE's cash and cash equivalents as "Restricted cash and cash equivalents (VIE)" because (i) the Company does not have any interest in or control over BioAxone's cash and cash equivalents and (ii) the Company's agreement with BioAxone does not provide for BioAxone's cash and cash equivalents to be used for the development of the asset that the Company licensed from BioAxone.

Recently Issued Accounting Standards**Derivatives and Hedging**

In 2017, the FASB issued ASU 2017-09, Derivatives and Hedging (Topic 815) ("ASU 2017-09"). ASU 2017-09 helps simplify certain aspects of hedge accounting and enables entities to more accurately present their risk management activities in their financial statements. The new guidance is effective for annual periods beginning after December 15, 2018, including interim periods within those annual periods. Early adoption is permitted. The Company is in the

process of determining the expected effect on its condensed consolidated financial statements.

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

Leasing

In 2016, the FASB issued ASU No. 2016-02, Leases (“ASU 2016-02”). ASU 2016-02 is applicable to leases that will be effective for the year ending December 31, 2019. Early adoption is permitted. ASU 2016-02 requires entities to recognize assets and liabilities for leases with lease terms of more than 12 months on the balance sheet and requires a modified-retrospective adoption approach. The Company is in the process of evaluating this guidance and determining the expected effect on its condensed consolidated financial statements; however, it anticipates that the amended guidance will result in the Company recording additional assets and corresponding liabilities on its condensed consolidated balance sheets. The Company has formed a project team to review its portfolio of existing leases and current accounting policies to identify and assess the potential differences that would result from applying the requirements of the new standard.

For a discussion of other recent accounting pronouncements please refer to Note A, “Nature of Business and Accounting Policies—Recent Accounting Pronouncements,” in the 2017 Annual Report on Form 10-K.

Summary of Significant Accounting Policies

The Company’s significant accounting policies are described in Note A, “Nature of Business and Accounting Policies,” in the 2017 Annual Report on Form 10-K. The Company has included its accounting policies related to accounting guidance that became effective January 1, 2018 in this Quarterly Report on Form 10-Q. The Company’s policy related to revenue recognition that has been updated pursuant to the adoption of ASC 606 is included in Note B, “Revenue Recognition,” and its policy related to marketable and equity securities is included below.

Marketable and Equity Securities

Effective January 1, 2018, the Company measures publicly traded corporate equity investments, which have readily available prices, at fair value with changes in fair value recognized in “Other income (expense), net,” each reporting period.

Effective January 1, 2018, the Company records privately issued corporate equity investments, which do not have readily determinable fair values, at cost, and adjusts for changes in observable prices minus impairment. Each reporting period the Company adjusts the carrying value of these investments if it observes that additional shares have been issued in an orderly transaction between market participants resulting in a price increase or decrease per share. Additionally, each reporting period the Company reviews these investments for impairment considering all available information to conclude whether an impairment exists. Changes in measurement for all corporate equity investments are recognized in “Other income (expense), net.”

B. Revenue Recognition

Pursuant to ASC 606, revenue is recognized by the Company when a customer obtains control of promised goods or services. The amount of revenue that is recorded reflects the consideration that the Company expects to receive in exchange for those goods or services. The Company applies the following five-step model in order to determine this amount: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation.

The Company only applies the five-step model to contracts when it is probable that the entity will collect the consideration it is entitled to in exchange for the goods or services it transfers to the customer. Once a contract is determined to be within the scope of ASC 606 at contract inception, the Company reviews the contract to determine which performance obligations the Company must deliver and which of these performance obligations are distinct. The Company recognizes as revenues the amount of the transaction price that is allocated to the respective performance obligation when the performance obligation is satisfied or as it is satisfied. Generally, the Company's performance obligations are transferred to customers at a point in time, typically upon delivery.

Product Revenues, Net

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

The Company sells its products principally to a limited number of specialty pharmacy and specialty distributors in the United States, which account for the largest portion of our total revenues, and international sales are made primarily to specialty distributors, retail chains as well as hospitals and clinics many of which are government owned or supported (collectively, its “Customers”). The Company’s Customers in the United States subsequently resell the products to patients and health care providers. In accordance with ASC 606, the Company recognizes net revenues from product sales when the Customer obtains control of the Company’s product, which typically occurs upon delivery to the Customer. The Company’s payment terms are approximately 30 days in the United States and consistent with prevailing practice in international markets.

Revenues from product sales are recorded at the net sales price, or “transaction price,” which includes estimates of variable consideration that result from (a) trade allowances, which include invoice discounts for prompt payment and Customer fees, (b) government and private payor rebates, chargebacks, discounts and fees, (c) reserves for expected product returns and (d) costs of co-pay assistance programs for patients, as well as other incentives for certain indirect customers. Reserves are established for the estimates of variable consideration based on the amounts earned or to be claimed on the related sales. The reserves are classified as reductions to “Accounts receivable, net” if payable to a Customer or “Accrued expenses” if the amount is payable to third-party. Where appropriate, the Company utilizes the expected value method to determine the appropriate amount for estimates of variable consideration based on factors such as the Company’s historical experience, current contractual and statutory requirements, specific known market events and trends, industry data and forecasted customer buying and payment patterns. The amount of variable consideration that is included in the transaction price may be constrained, and is included in net product revenues only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue recognized will not occur in a future period. Actual amounts of consideration ultimately received may differ from the Company’s estimates. If actual results vary from the Company’s estimates, the Company adjusts these estimates, which would affect net product revenue and earnings in the period such variances become known.

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 Company estimates 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, Discounts and Fees: The Company contracts primarily with government agencies (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, discounts and fees 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 and fees applicable to government-funded programs, (iii) information obtained from the Company’s Customers and other third-party data 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. 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 appropriate accruals.

The Company makes significant estimates and judgments that materially affect the Company's recognition of net product revenues. 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-

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

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. The Company's credits to revenue related to prior period sales have typically been approximately 1% or less of gross product revenues and primarily related to U.S. rebates, chargebacks and discounts.

Taxes collected from Customers relating to product sales and remitted to governmental authorities are excluded from revenues.

French Early Access Programs

Pursuant to ASC 605, Revenue Recognition, which was applicable until December 31, 2017, the Company only recognized revenues from product sales if it determined that the price was fixed or determinable at the time of delivery. If the Company determined that the price was not fixed or determinable, it deferred the recognition of revenues. If the Company was able to determine that the price was fixed or determinable, it recognized the net product revenues associated with the units.

The Company began distributing ORKAMBI through early access programs in France during the fourth quarter of 2015 and is engaged in ongoing pricing discussions regarding the final price for ORKAMBI in France. The Company's ORKAMBI net product revenues for 2017, 2016 and 2015 did not include any net product revenues from sales of ORKAMBI in France because the price was not fixed or determinable. The Company expects that the difference between the amounts collected based on the invoiced price and the final price for ORKAMBI in France will be returned to the French government.

As of March 31, 2018 and December 31, 2017, the Company's condensed consolidated balance sheet included \$268.4 million and \$232.4 million, respectively, classified as "Early access sales accrual" related to amounts collected in France as payment for shipments of ORKAMBI under the early access programs, which is considered to be a refund liability pursuant to ASC 606.

Upon adopting ASC 606 in the first quarter of 2018, the Company recorded an \$8.3 million cumulative effect adjustment to "Accumulated deficit" primarily related to shipments of ORKAMBI under early access programs in France. The Company determined the amount of the adjustment based upon (i) the status of pricing discussions in France upon adoption, (ii) the Company's estimate of the amount of consideration it expects to retain related to ORKAMBI sales in France that occurred on or prior to December 31, 2017 that will not be subject to a significant reversal in amounts recognized and (iii) recognition of costs previously deferred related to the ORKAMBI sales in France. For ORKAMBI sales in France that occurred after December 31, 2017 under the early access programs, the Company has recognized net product revenues based on the estimate of consideration it expects to retain that will not be subject to a significant reversal in amounts recognized.

In periods after the first quarter of 2018, if the Company's estimate regarding the amounts it will receive for ORKAMBI supplied pursuant to these early access programs changes, the Company will reflect the effect of the change in estimate in net product revenues in the period in which the change in estimate occurs and will include adjustments to all prior sales of ORKAMBI under the early access programs.

Collaborative Revenues

The Company recognizes collaborative 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, upfront license fees; development and commercial milestone payments; funding of research and/or development activities; 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. Revenue is recognized upon satisfaction of a performance obligation by transferring control of a good or service to the collaborator.

For each collaborative research, development and/or commercialization agreement that result in revenues, the Company identifies all material performance obligations, which may include a license to intellectual property and know-how, research and development activities and/or transition activities. In order to determine the transaction price,

in addition to any upfront payment, the Company estimates the amount of variable consideration at the outset of the contract either utilizing the

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

expected value or most likely amount method, depending on the facts and circumstances relative to the contract. The Company constrains (reduces) the estimates of variable consideration such that it is probable that a significant reversal of previously recognized revenue will not occur throughout the life of the contract. When determining if variable consideration should be constrained, management considers whether there are factors outside the Company's control that could result in a significant reversal of revenue. In making these assessments, the Company considers the likelihood and magnitude of a potential reversal of revenue. These estimates are re-assessed each reporting period as required.

Once the estimated transaction price is established, amounts are allocated to the performance obligations that have been identified. The transaction price is generally allocated to each separate performance obligation on a relative standalone selling price basis. The Company must develop assumptions that require judgment to determine the standalone selling price in order to account for these agreements. To determine the standalone selling price the Company's assumptions may include (i) assumptions regarding the probability of obtaining marketing approval for the drug candidate, (ii) estimates regarding the timing of and the expected costs to develop and commercialize the drug candidate, (iii) estimates of future cash flows from potential product sales with respect to the drug candidate and (iv) appropriate discount and tax rates. Standalone selling prices used to perform the initial allocation are not updated after contract inception. The Company does not include a financing component to its estimated transaction price at contract inception unless it estimates that certain performance obligations will not be satisfied within one year.

Upfront License Fees: If a license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenues from nonrefundable, upfront license fees based on the relative value prescribed to the license compared to the total value of the arrangement. The revenue is recognized when the license is transferred to the collaborator and the collaborator is able to use and benefit from the license. For licenses that are not distinct from other obligations identified in the arrangement, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time. If the combined performance obligation is satisfied over time, the Company applies an appropriate method of measuring progress for purposes of recognizing revenue from nonrefundable, upfront license fees. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Development and Regulatory Milestone Payments: Depending on facts and circumstances, the Company may conclude that it is appropriate to include the milestone in the estimated transaction price or that it is appropriate to fully constrain the milestone. A milestone payment is included in the transaction price in the reporting period that the Company concludes that it is probable that recording revenue in the period will not result in a significant reversal in amounts recognized in future periods. The Company may record revenues from certain milestones in a reporting period before the milestone is achieved if the Company concludes that achievement of the milestone is probable and that recognition of revenue related to the milestone will not result in a significant reversal in amounts recognized in future periods. The Company records a corresponding contract asset when this conclusion is reached. Milestone payments that have not been included in the transaction price to date are fully constrained. These milestones remain fully constrained until the Company concludes that achievement of the milestone is probable and that recognition of revenue related to the milestone will not result in a significant reversal in amounts recognized in future periods. The Company re-evaluates the probability of achievement of such development milestones and any related constraint each reporting period. The Company adjusts its estimate of the overall transaction price, including the amount of collaborative revenue that it has recorded, if necessary.

Research and Development Activities/Transition Services: If the Company is entitled to reimbursement from its collaborators for specified research and development expenses, the Company accounts for them as separate performance obligations if it determines that these services represent a material right. The Company also determines whether the research and development funding would result in collaborative revenues or an offset to research and development expenses in accordance with provisions of gross or net revenue presentation. The corresponding

revenues or offset to research and development expenses are recognized as the related performance obligations are satisfied.

Sales-based Milestone and Royalty Payments: The Company's collaborators may be required to pay the Company sales-based milestone payments or royalties on future sales of commercial products. The Company recognizes revenues related to sales-based milestone and royalty payments upon the later to occur of (i) achievement of the collaborator's

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 Notes to Condensed Consolidated Financial Statements
 (unaudited)

underlying sales or (ii) satisfaction of any performance obligation(s) related to these sales, in each case assuming the license to the Company's intellectual property is deemed to be the predominant item to which the sales-based milestones and/or royalties relate.

Contract Liabilities

The following table summarizes changes in the Company's contract liabilities for the three months ended March 31, 2018:

	Balance at January 1, 2018 (ASC 606 adoption) (in thousands)	Additions	Deductions	Balance at March 31, 2018
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Three Months Ended March 31, 2018**Contract liabilities:**

Other liabilities, current portion	\$1,654	\$12,983	\$	—\$14,637
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The Company's contract liabilities relate to contracts with government-owned and supported customers in international markets limiting the amount of annual reimbursement the Company can receive. These contracts, which are classified as "Other liabilities, current portion," include upfront payments and fees. Upon exceeding the annual reimbursement amount, products are provided free of charge, which is a material right pursuant to ASC 606. The deferred portion is recognized as revenue when the free products are shipped. The Company's product revenue contracts include performance obligations that are one year or less.

During the three months ended March 31, 2018, the Company did not recognize any revenues related to its contract liability balance as of January 1, 2018 or revenues related to performance obligations satisfied in previous periods.

Disaggregation of Revenue**Revenues by Product**

Product revenues, net consisted of the following:

	Three Months Ended March 31, 2018 (as reported under ASC 606) (in thousands)	2017 (as reported under ASC 605)
KALYDECO	\$249,539	\$185,715
ORKAMBI	354,066	294,861
SYMDEKO	34,124	—
Other	—	46
Total product revenues, net	\$637,729	\$480,622

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 Notes to Condensed Consolidated Financial Statements
 (unaudited)

Revenues by Geographic Location

Net product revenues are attributed to countries based on the location of the customer. Collaborative and royalty revenues are attributed to countries based on the location of the Company's subsidiary associated with the collaborative arrangement related to such revenues. Total revenues from external customers and collaborators by geographic region consisted of the following:

	Three Months Ended March 31, 2018 (as reported under ASC 606) (in thousands)		2017 (as reported under ASC 605)
United States	\$482,667	\$599,126	
Outside of the United States			
Europe	131,895	92,358	
Other	26,237	23,234	
Total revenues outside of the United States	158,132	115,592	
Total revenues	\$640,799	\$714,718	

In the three months ended March 31, 2018 and 2017, revenues attributable to Germany and the United Kingdom contributed the largest amounts to the Company's European revenues.

C. Collaborative Arrangements and Acquisitions

Cystic Fibrosis Foundation Therapeutics Incorporated

The Company has a research, development and commercialization agreement with Cystic Fibrosis Foundation Therapeutics Incorporated ("CFFT") that was originally entered into in May 2004, and was most recently amended in October 2016 (the "2016 Amendment"). Pursuant to the agreement, as amended, the Company has agreed to pay royalties ranging from low-single digits to mid-single digits on potential sales of certain compounds first synthesized and/or tested between March 1, 2014 and August 31, 2016, including VX-659 and VX-445, and tiered royalties ranging from single digits to sub-teens on any approved drugs first synthesized and/or tested during a research term on or before February 28, 2014, including KALYDECO (ivacaftor), ORKAMBI (lumacaftor in combination with ivacaftor) and SYMDEKO (tezacaftor in combination with ivacaftor). For combination products, such as ORKAMBI and SYMDEKO, sales are allocated equally to each of the active pharmaceutical ingredients in the combination product. The Company previously made certain commercial milestone payments to CFFT but there are no remaining commercial milestone payments payable by the Company to CFFT pursuant to the agreement.

Pursuant to the 2016 Amendment, the CFFT provided the Company an upfront payment of \$75.0 million and agreed to provide development funding to the Company of up to \$6.0 million annually. The upfront payment plus any future development funding represent a form of financing pursuant to ASC 730, Research and Development, and thus the amounts are recorded as a liability on the condensed consolidated balance sheet, primarily reflected in "Advance from collaborator, excluding current portion". The liability is reduced over the estimated royalty term of the agreement. Reductions in the liability are reflected as an offset to "Cost of sales" and as "Interest expense, net".

The Company began marketing KALYDECO in 2012 and began marketing ORKAMBI in 2015. The Company received approval for SYMDEKO in the United States in February 2018 and has submitted a Marketing Authorization Application ("MAA") to the European Medicines Agency ("EMA") seeking approval for tezacaftor in combination with ivacaftor in the European Union. The Company expects the EMA to complete its review of the MAA in the second half of 2018. The Company has royalty obligations to CFFT for ivacaftor, lumacaftor and tezacaftor until the expiration of patents covering those compounds. 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 patents in the United States and European Union covering the composition-of-matter of lumacaftor that expire in 2030 and 2026, respectively, subject to potential extension. The Company has patents in the United States and European Union covering the composition-of-matter of tezacaftor that expire in 2027 and 2028, respectively, subject to potential extension.

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

CRISPR Therapeutics AG

In 2015, the Company entered into a strategic collaboration, option and license agreement (the “CRISPR Agreement”) with CRISPR Therapeutics AG and its affiliates (“CRISPR”) to collaborate on the discovery and development of potential new treatments aimed at the underlying genetic causes of human diseases using CRISPR-Cas9 gene editing technology. The Company has the exclusive right to license up to six CRISPR-Cas9-based targets, including targets for the potential treatment of sickle cell disease. In connection with the CRISPR Agreement, the Company made an upfront payment to CRISPR of \$75.0 million and a \$30.0 million investment in CRISPR pursuant to a convertible loan agreement that subsequently converted into common shares of CRISPR and was recorded on the Company’s condensed consolidated balance sheet. The Company has made several additional investments in CRISPR’s common shares, including a \$21.5 million investment in January 2018. As of March 31, 2018, the Company recorded the fair value of its investment in CRISPR common shares of \$188.9 million in “Marketable securities” on its condensed consolidated balance sheet.

The Company funds all of the discovery activities conducted pursuant to the CRISPR Agreement. For targets that the Company elects to license, other than hemoglobinopathy treatments, the Company would lead all development and global commercialization activities. For each target that the Company elects to license, other than hemoglobinopathy targets, CRISPR has the potential to receive up to \$420.0 million in development, regulatory and commercial milestones and royalties on net product sales. As part of the collaboration, the Company and CRISPR share equally all development costs and potential worldwide revenues related to potential hemoglobinopathy treatments, including treatments for beta-thalassemia and sickle cell disease.

The Company may terminate the CRISPR Agreement upon 90 days’ notice to CRISPR prior to any product receiving marketing approval or upon 270 days’ notice after a product has received marketing approval. The CRISPR Agreement also may be terminated by either party for a material breach by the other, subject to notice and cure provisions. Unless earlier terminated, the CRISPR Agreement will continue in effect until the expiration of the Company’s payment obligations under the CRISPR Agreement.

In the fourth quarter of 2017, the Company entered into a co-development and co-commercialization agreement with CRISPR pursuant to the terms of the CRISPR Agreement, under which the Company and CRISPR will co-develop and co-commercialize CTX001 for the treatment of hemoglobinopathy treatments, including treatments for sickle cell disease and beta-thalassemia.

Merck KGaA

In January 2017, the Company entered into a strategic collaboration and license agreement (the “Merck KGaA Agreement”) with Merck KGaA, Darmstadt, Germany (“Merck KGaA”). Pursuant to the Merck KGaA Agreement, the Company granted Merck KGaA an exclusive worldwide license to research, develop and commercialize four oncology research and development programs. Under the Merck KGaA Agreement, the Company granted Merck KGaA exclusive, worldwide rights to two clinical-stage programs targeting DNA damage repair: its ataxia telangiectasia and Rad3-related protein inhibitor program, including VX-970 and VX-803, and its DNA-dependent protein kinase inhibitor program, including VX-984. In addition, the Company granted Merck KGaA exclusive, worldwide rights to two pre-clinical programs.

The Merck KGaA Agreement provided for an upfront payment from Merck KGaA to the Company of \$230.0 million. A portion of the upfront payment that was remitted to the German tax authorities in 2017 was refunded to the Company in February 2018. In addition to the upfront payment, the Company will receive tiered royalties on potential sales of licensed products, calculated as a percentage of net sales, that range from (i) mid-single digits to mid-twenties for clinical-stage programs and (ii) mid-single digits to high single digits for the pre-clinical research programs. Merck KGaA has assumed full responsibility for development and commercialization costs for all programs.

The Company evaluated the deliverables, primarily consisting of a license to the four programs and the obligation to complete certain fully-reimbursable research and development and transition activities as directed by Merck KGaA, pursuant to the Merck KGaA Agreement, under the multiple element arrangement accounting guidance that was

applicable in 2017. The Company concluded that the license had stand-alone value from the research and development and transition activities based on the resources and know-how possessed by Merck KGaA, and thus concluded that there are two units of accounting in the arrangement. The Company determined the relative selling price of the units of accounting based on the Company's

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 Notes to Condensed Consolidated Financial Statements
 (unaudited)

best estimate of selling price. The Company utilized key assumptions to determine the best estimate of selling price for the license, which included future potential net sales of licensed products, development timelines, reimbursement rates for personnel costs, discount rates, and estimated third-party development costs. The Company utilized a discounted cash flow model to determine its best estimate of selling price for the license and determined the best estimate of selling price for the research and development and transition activities based on what it would sell the services for separately. Given the significance of the best estimate of selling price for the license as compared to the best estimate of selling price for the research and development and transition services, reasonable changes in the assumptions used in the discounted cash flow model would not have a significant impact on the relative selling price allocation. Based on this analysis, the Company recognized the \$230.0 million upfront payment upon delivery of the license as well as research and development and transition activities during the first quarter of 2017. The Company records the reimbursement for the research and development and transition activities in its condensed consolidated statements of operations as collaborative revenue primarily due to the fact that it is the primary obligor in the arrangement. As of December 31, 2017, the Company's activities related to research and development and transition activities under the Merck KGaA Agreement were substantially complete.

Merck KGaA may terminate the Merck KGaA Agreement or any individual program by providing 90 days' notice, or, in the case of termination of a program with a product that has received marketing approval, 180 days' notice. The Merck KGaA Agreement also may be terminated by either party for a material breach by the other party, subject to notice and cure provisions. Unless earlier terminated, the Merck KGaA Agreement will continue in effect until the date on which the royalty term and all payment obligations with respect to all products in all countries have expired.

Variable Interest Entities (VIEs)

The Company has entered into several agreements pursuant to which it has licensed rights to certain drug candidates from third-party collaborators, resulting in the consolidation of the third parties' financial statements into the Company's condensed consolidated financial statements as VIEs. In order to account for the fair value of the contingent payments, which could consist of milestone, royalty and option payments, related to these collaborations under GAAP, the Company uses present-value models based on assumptions regarding the probability of achieving the relevant milestones, estimates regarding the timing of achieving the milestones, estimates of future product sales and the appropriate discount rates. The Company bases its estimates 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 represent a measure of credit risk and market risk associated with settling the liabilities. Significant judgment is used in determining the appropriateness of these assumptions at each reporting period. Changes in these assumptions could have a material effect on the fair value of the contingent payments. The following collaborations have been reflected in the Company's financial statements as consolidated VIEs for portions or all of the periods presented:

Parion Sciences, Inc.

In 2015, the Company entered into a strategic collaboration and license agreement (the "Parion Agreement") with Parion to collaborate with Parion to develop investigational epithelial sodium channel ("ENaC") inhibitors, including VX-371 (formerly P-1037) and VX-551 (formerly P-1055), for the potential treatment of CF and all other pulmonary diseases. The Company is responsible for all costs, subject to certain exceptions, related to development and commercialization of the compounds.

Pursuant to the Parion Agreement, the Company has worldwide development and commercial rights to Parion's lead investigational ENaC inhibitors, VX-371 and VX-551, for the potential treatment of CF and all other pulmonary diseases and has the option to select additional compounds discovered in Parion's research program. To date Parion received \$85.0 million in upfront and milestone payments under the Parion Agreement. Parion has the potential to receive up to an additional (i) \$485.0 million in development and regulatory milestone payments for development of ENaC inhibitors in CF, including \$360.0 million related to global filing and approval milestones, (ii) \$370.0 million in development and regulatory milestones for VX-371 and VX-551 in non-CF pulmonary indications and (iii) \$230.0 million in development and regulatory milestones should the Company elect to develop an additional ENaC inhibitor

from Parion's research program. The Company agreed to pay Parion tiered royalties that range from the low double digits to mid-teens as a percentage of potential sales of licensed products.

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 Notes to Condensed Consolidated Financial Statements
 (unaudited)

The Company may terminate the Parion Agreement upon 90 days' notice to Parion prior to any licensed product receiving marketing approval or upon 180 days' notice after a licensed product has received marketing approval. If the Company experiences a change of control prior to the initiation of the first Phase 3 clinical trial for a licensed product, Parion may terminate the Parion Agreement upon 30 days' notice, subject to the Company's right to receive specified royalties on any subsequent commercialization of licensed products. The Parion Agreement also may be terminated by either party for a material breach by the other, subject to notice and cure provisions. Unless earlier terminated, the Parion Agreement will continue in effect until the expiration of the Company's royalty obligations, which expire on a country-by-country basis on the later of (i) the date the last-to-expire patent covering a licensed product expires or (ii) ten years after the first commercial sale in the country.

Following execution of the Parion Agreement, the Company determined that it had a variable interest in Parion via the Parion Agreement, and that the variable interest represented a variable interest in Parion as a whole because the fair value of the ENaC inhibitors represented more than half of the total fair value of Parion's assets. The Company also concluded that it was the primary beneficiary as it had the power to direct the activities that most significantly affect the economic performance of Parion and that it had the obligation to absorb losses and right to receive benefits that potentially could be significant to Parion. Accordingly, the Company consolidated Parion's financial statements beginning in June 2015. Notwithstanding the applicable accounting treatment, the Company's interests in Parion have been and continue to be limited to those accorded to the Company in the Parion Agreement.

As of September 30, 2017, the Company determined that the fair value of Parion's pulmonary ENaC platform had declined significantly based on data received in September 2017 from a Phase 2 clinical trial of VX-371 that did not meet its primary efficacy endpoint. After evaluating the results of the clinical trial and based on the decrease in the fair value of Parion's pulmonary ENaC platform relative to Parion's other activities, the Company determined that it was no longer the primary beneficiary of Parion as it no longer had the power to direct the significant activities of Parion. Accordingly, the Company deconsolidated Parion as of September 30, 2017. Please refer to Note B, "Collaborative Arrangements and Acquisitions," in the 2017 Annual Report on Form 10-K for further information regarding the deconsolidation of Parion.

BioAxone Biosciences, Inc.

In 2014, the Company entered into a license and collaboration agreement (the "BioAxone Agreement") with BioAxone Biosciences, Inc. ("BioAxone"), which resulted in the consolidation of BioAxone as a VIE beginning on October 1, 2014. 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. The Company made an initial payment to BioAxone of \$10.0 million in 2014. In the first quarter of 2018, the Company's option to purchase BioAxone expired and the Company paid a \$10.0 million license continuation fee to BioAxone. BioAxone has the potential to receive up to \$80.0 million in milestones, including development and regulatory milestone payments. As of March 31, 2018, the Company continues to conclude that it is the primary beneficiary of BioAxone and continues to consolidate BioAxone as a VIE.

Aggregate VIE Financial Information

An aggregate summary of net income attributable to noncontrolling interest related to the Company's VIEs for the three months ended March 31, 2018 and 2017 is as follows:

	Three Months Ended March 31, 2018 2017 (in thousands)	
Loss attributable to noncontrolling interest before provision for income taxes and changes in fair value of contingent payments	\$557	\$1,547
Provision for income taxes	6,405	391
Increase in fair value of contingent payments	(24,000)	(3,730)

Net income attributable to noncontrolling interest \$(17,038) \$(1,792)

The increase in the noncontrolling interest holders' claim to net assets with respect to the fair value of the contingent payments for the three months ended March 31, 2018 was primarily due to the expiration of the Company's option to

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 Notes to Condensed Consolidated Financial Statements
 (unaudited)

purchase BioAxone that increased the probability related to the \$10.0 million license continuation fee for VX-210 and the probability that additional milestone and royalty payments related to the BioAxone Agreement will be achieved. The increase in the noncontrolling interest holders' claim to net assets with respect to the fair value of the contingent payments for the three months ended March 31, 2017 was primarily due to changes in market interest rates and the time value of money. The fair value of the contingent payments payable by the Company to BioAxone was \$32.9 million and \$18.9 million as of March 31, 2018 and December 31, 2017, respectively. During the three months ended March 31, 2018 and 2017, the increases in the fair value of the contingent payments related to the Company's VIEs were as follows:

	Three Months Ended March 31, 2018	2017
	(in thousands)	
Parion	\$—	\$(2,830)
BioAxone	24,900	()

Significant amounts related to the Company's consolidation of BioAxone as a VIE included in the Company's condensed consolidated balance sheets as of the dates set forth in the table were as follows:

	March 31, 2018	December 31, 2017
	(in thousands)	
Restricted cash and cash equivalents (VIE)	\$9,573	\$ 1,489
Intangible assets	29,000	29,000
Deferred tax liability	9,636	4,756
Noncontrolling interest	29,765	13,727

The Company has recorded BioAxone's cash and cash equivalents as "Restricted cash and cash equivalents (VIE)" because (i) the Company does not have any interest in or control over BioAxone's cash and cash equivalents and (ii) the Company's agreement with BioAxone does not provide for BioAxone's cash and cash equivalents to be used for the development of the asset that the Company licensed from BioAxone. Assets recorded as a result of consolidating BioAxone's financial condition into the Company's balance sheets do not represent additional assets that could be used to satisfy claims against the Company's general assets.

Other Collaborations

The Company has entered into various agreements pursuant to which it collaborates with third parties, including inlicensing and outlicensing arrangements. Although the Company does not consider any of these arrangements to be material, the most notable of these arrangements are described below.

Moderna Therapeutics, Inc.

In 2016, the Company entered into a strategic collaboration and licensing agreement (the "Moderna Agreement") with Moderna Therapeutics, Inc. ("Moderna") pursuant to which the parties are seeking to identify and develop messenger Ribonucleic Acid ("mRNA") therapeutics for the treatment of CF. In connection with the Moderna Agreement, the Company made an upfront payment to Moderna of \$20.0 million and a \$20.0 million investment in Moderna pursuant to a convertible promissory note that converted into preferred stock in 2016. Moderna has the potential to receive future development and regulatory milestones of up to \$275.0 million, including \$220.0 million in approval and reimbursement milestones, as well as tiered royalty payments on future sales. The carrying value of our

investment in Moderna was \$23.0 million as of March 31, 2018.

Under the terms of the Moderna Agreement, Moderna leads discovery efforts and the Company leads all preclinical, development and commercialization activities associated with the advancement of mRNA Therapeutics that result from this collaboration and will fund all expenses related to the collaboration.

The Company may terminate the Moderna Agreement by providing advance notice to Moderna, with the required length of notice dependent on whether any product developed under the Moderna Agreement has received marketing approval. The

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

Moderna Agreement also may be terminated by either party for a material breach by the other, subject to notice and cure provisions. Unless earlier terminated, the Moderna Agreement will continue in effect until the expiration of the Company's payment obligations under the Moderna Agreement.

Janssen Pharmaceuticals, Inc.

In 2014, the Company entered into an agreement (the "Janssen Agreement") with Janssen Pharmaceuticals, Inc. ("Janssen"). Pursuant to the agreement, Janssen has an exclusive worldwide license to develop and commercialize certain drug candidates for the treatment of influenza, including pimodivir (formerly VX-787). The Company received non-refundable payments of \$35.0 million from Janssen in 2014 and recognized a \$25.0 million milestone in the fourth quarter of 2017. The milestone, which was achieved based on the Phase 3 clinical trial Janssen initiated in the fourth quarter of 2017, was collected in the first quarter of 2018. The Company has the potential to receive additional regulatory and commercial milestone payments as well as royalties on future product sales, if any. Janssen is responsible for costs related to the development and commercialization of the compounds. Janssen may terminate the Janssen Agreement, subject to certain exceptions, upon 6 months' notice.

Asset Acquisition

Concert Pharmaceuticals

In July 2017, the Company acquired certain CF assets including VX-561 (formerly CTP-656) (the "Concert Assets") from Concert Pharmaceuticals Inc. ("Concert") pursuant to an asset purchase agreement that was entered into in March 2017 (the "Concert Agreement"). VX-561 is an investigational CFTR potentiator that has the potential to be used as part of combination regimens of CFTR modulators to treat CF. Pursuant to the Concert Agreement, Vertex paid Concert \$160.0 million in cash for the Concert Assets. If VX-561 is approved as part of a combination regimen to treat CF, Concert could receive up to an additional \$90.0 million in milestones based on regulatory approval in the United States and reimbursement in the United Kingdom, Germany or France. The Company determined that substantially all of the fair value of the Concert Agreement was attributable to a single in-process research and development asset, VX-561, which did not constitute a business. The Company concluded that it did not have any alternative future use for the acquired in-process research and development asset. Thus, the Company recorded the \$160.0 million upfront payment as a research and development expense in the third quarter of 2017. The total cost of the transaction was \$165.1 million including \$5.1 million of transaction costs that were recorded as sales, general and administrative expenses. If the Company achieves regulatory approval and reimbursement milestones, the Company will record the value of the milestone as an intangible asset and will begin amortizing the asset in cost of sales in the period that the relevant milestone is achieved.

D. Earnings Per Share

Basic net income per share attributable to Vertex common shareholders is based upon the weighted-average number of common shares outstanding during the period, excluding restricted stock, restricted stock units and performance-based restricted stock units, or "PSUs," that have been issued but are not yet vested. Diluted net income per share attributable to Vertex common shareholders is based upon the weighted-average number of common shares outstanding during the period plus additional weighted-average common equivalent shares outstanding during the period when the effect is dilutive.

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

The following table sets forth the computation of basic and diluted net income per share for the periods ended:

	Three Months Ended March 31, 2018 2017 (in thousands, except per share amounts)	
Basic net income attributable to Vertex per common share calculation:		
Net income attributable to Vertex common shareholders	\$210,263	\$247,756
Less: Undistributed earnings allocated to participating securities	(99)	(406)
Net income attributable to Vertex common shareholders—basic	\$210,164	\$247,350
Basic weighted-average common shares outstanding	253,231	246,024
Basic net income attributable to Vertex per common share	\$0.83	\$1.01
Diluted net income attributable to Vertex per common share calculation:		
Net income attributable to Vertex common shareholders	\$210,263	\$247,756
Less: Undistributed earnings allocated to participating securities	(97)	(401)
Net income attributable to Vertex common shareholders—diluted	\$210,166	\$247,355
Weighted-average shares used to compute basic net income per common share	253,231	246,024
Effect of potentially dilutive securities:		
Stock options	3,248	2,037
Restricted stock and restricted stock units (including PSUs)	2,013	627
Employee stock purchase program	34	12
Weighted-average shares used to compute diluted net income per common share	258,526	248,700
Diluted net income attributable to Vertex per common share	\$0.81	\$0.99

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

	Three Months Ended March 31, 2018 2017 (in thousands)	
Stock options	1,633	8,303
Unvested restricted stock and restricted stock units (including PSUs)	4	807

E. 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:

22

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

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

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

Unobservable inputs based on the Company's assessment of the assumptions that market participants would Level 3: 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 March 31, 2018, the Company's investments were primarily in money market funds, government-sponsored enterprise securities, corporate equity securities, corporate debt securities and commercial paper. Additionally, the Company utilizes foreign currency forward contracts intended to mitigate the effect of changes in foreign exchange rates on its condensed consolidated statement of operations.

As of March 31, 2018, all of the Company's financial assets and liabilities 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 money market funds, government-sponsored enterprise securities and corporate equity securities. The Company's financial assets and liabilities valued based on Level 2 inputs consisted of corporate debt securities and commercial paper, which consisted of investments in highly-rated investment-grade corporations, and foreign currency forward contracts with reputable and creditworthy counterparties. During the three months ended March 31, 2018 and 2017, the Company did not record any other-than-temporary impairment charges related to its financial assets.

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

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

	Fair Value Measurements as of March 31, 2018			
	Total	Fair Value Hierarchy		
		Level 1	Level 2	Level 3
	(in thousands)			
Financial instruments carried at fair value (asset position):				
Cash equivalents:				
Money market funds	\$921,007	\$921,007	\$—	\$ —
Government-sponsored enterprise securities	4,989	4,989	—	—
Corporate debt securities	7,927	—	7,927	—
Commercial paper	50,669	—	50,669	—
Marketable securities:				
Corporate equity securities	188,857	188,857	—	—
Government-sponsored enterprise securities	4,995	4,995	—	—
Corporate debt securities	218,213	—	218,213	—
Commercial paper	69,059	—	69,059	—
Prepaid and other current assets:				
Foreign currency forward contracts	540	—	540	—
Other assets:				
Foreign currency forward contracts	31	—	31	—
Total financial assets	\$1,466,287	\$1,119,848	\$346,439	\$ —
Financial instruments carried at fair value (liability position):				
Other liabilities, current portion:				
Foreign currency forward contracts	\$(15,370)	\$—	\$(15,370)	\$ —
Other liabilities, excluding current portion:				
Foreign currency forward contracts	(850)	—	(850)	—
Total financial liabilities	\$(16,220)	\$—	\$(16,220)	\$ —

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 Notes to Condensed Consolidated Financial Statements
 (unaudited)

	Fair Value Measurements as of December 31, 2017			
	Fair Value Hierarchy			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Financial instruments carried at fair value (asset position):				
Cash equivalents:				
Money market funds	\$614,951	\$614,951	\$—	\$ —
Government-sponsored enterprise securities	12,678	12,678	—	—
Commercial paper	57,357	—	57,357	—
Marketable securities:				
Corporate equity securities	74,821	74,821	—	—
Government-sponsored enterprise securities	2,303	2,303	—	—
Corporate debt securities	265,867	—	265,867	—
Commercial paper	80,263	—	80,263	—
Prepaid and other current assets:				
Foreign currency forward contracts	13	—	13	—
Total financial assets	\$1,108,253	\$704,753	\$403,500	\$ —
Financial instruments carried at fair value (liability position):				
Other liabilities, current portion:				
Foreign currency forward contracts	\$(13,642)	\$—	\$(13,642)	\$ —
Other liabilities, excluding current portion:				
Foreign currency forward contracts	(866)	—	(866)	—
Total financial liabilities	\$(14,508)	\$—	\$(14,508)	\$ —

Please refer to Note F, "Marketable Securities and Equity Investments," for the carrying amount and related unrealized gains (losses) by type of the Company's financial assets and liabilities.

The Company's VIE invested in cash equivalents consisting of money market funds of \$8.8 million as of March 31, 2018, which are valued based on Level 1 inputs. These cash equivalents are not included in the table above. The Company's noncontrolling interest related to the Company's VIE includes the fair value of the contingent payments, which could consist of milestone, royalty and option payments, which are valued based on Level 3 inputs. Please refer to Note C, "Collaborative Arrangements and Acquisitions," for further information.

F. Marketable Securities and Equity Investments

Pursuant to the adoption of ASU 2016-01 on January 1, 2018, the Company began recording changes in the fair value of its investments in corporate equity securities to "Other income (expense), net" in the Company's condensed consolidated statements of operations. Prior to its adoption of ASU 2016-01, the Company recorded changes in the fair value of its investments in corporate equity securities to "Accumulated other comprehensive loss" on its condensed consolidated balance sheet until the related gains or losses were realized. The Company continues to record unrealized gains (losses) on available-for-sale debt securities as a component of accumulated other comprehensive income (loss) until such gains and losses are realized.

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
Notes to Condensed Consolidated Financial Statements
(unaudited)

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

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
(in thousands)				
As of March 31, 2018				
Available-for-sale debt securities				
Cash equivalents:				
Money market funds	\$921,007	\$ —	\$ —	\$921,007
Government-sponsored enterprise securities	4,990	—	(1	) 4,989
Corporate debt securities	7,930	—	(3	) 7,927
Commercial paper	50,680	—	(11	) 50,669
Total cash equivalents	984,607	—	(15	) 984,592
Marketable securities:				
Government-sponsored enterprise securities (matures within 1 year)	4,995	—	—	4,995
Corporate debt securities (matures within 1 year)	184,698	—	(648	) 184,050
Corporate debt securities (matures after 1 year through 5 years)	34,383	—	(220	) 34,163
Commercial paper (matures within 1 year)	69,230	—	(171	) 69,059
Total marketable debt securities	293,306	—	(1,039	) 292,267
Total available-for-sale debt securities	1,277,913	—	(1,054	) 1,276,859
Corporate equity securities	64,713	124,144	—	188,857
Total cash equivalents and marketable securities	\$1,342,626	\$ 124,144	\$ (1,054	) \$1,465,716

As of December 31, 2017

Available-for-sale debt securities

Cash equivalents:

Money market funds	\$614,951	\$ —	\$ —	\$614,951
Government-sponsored enterprise securities	12,679	—	-(1	) 12,678
Commercial paper	57,371	—	(14	) 57,357
Total cash equivalents	685,001	—	(15	) 684,986

Marketable securities:

Government-sponsored enterprise securities (matures within 1 year)	2,304	—	(1	) 2,303
Corporate debt securities (matures within 1 year)	215,639	—	(363	) 215,276
Corporate debt securities (matures after 1 year through 5 years)	50,697	—	(106	) 50,591
Commercial paper (matures within 1 year)	80,372	—	(109	) 80,263
Total marketable debt securities	349,012	—	(579	) 348,433
Total available-for-sale debt securities	1,034,013	—	(594	) 1,033,419
Available-for-sale corporate equity securities	43,213	31,608	—	74,821
Total cash equivalents and marketable securities	\$1,077,226	\$ 31,608	\$ (594	) \$1,108,240

The Company has a limited number of available-for-sale debt securities in insignificant loss positions as of March 31, 2018, 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 investments at maturity. There were no charges recorded for other-than-temporary declines in the fair value of available-for-sale debt securities nor gross realized gains or losses recognized in the three months ended March 31, 2018 and 2017, respectively.

The Company maintains strategic investments separately from the investment policy that governs its other cash, cash equivalents and marketable securities. During the three months ended March 31, 2018, the Company recorded an

aggregate unrealized gain of \$95.5 million related to its investments in corporate equity securities, as follows:

26

Table of Contents

VERTEX PHARMACEUTICALS INCORPORATED
 Notes to Condensed Consolidated Financial Statements
 (unaudited)

\$92.5 million related to its equity investment in CRISPR, a publicly traded company. The CRISPR common stock held by the Company has a readily determinable fair value that is recorded in “Marketable securities” on the Company’s condensed consolidated balance sheets. In January 2018, the Company purchased an additional \$21.5 million of CRISPR’s common shares.

\$2.9 million related to its equity investment in Moderna, which is not a publicly traded company that has a readily determinable fair value for its stock. The Company increased the carrying value of its investment in Moderna, which is recorded in “Other assets” on its condensed consolidated balance sheets, to \$23.0 million as of March 31, 2018 based on an observable price increase for additional shares privately issued by Moderna in an orderly transaction between market participants.

G. Accumulated Other Comprehensive
 Income (Loss)

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

	Unrealized Holding Gains (Losses), Net of Tax				
	Foreign Currency Translation Adjustment	On Available- Debt Securities	On For-Sale Equity Securities	On Foreign Currency Forward Contracts	Total
	(in thousands)				
Balance at December 31, 2017	\$(21,031)	\$(594)	25,069	\$(15,016)	\$(11,572)
Other comprehensive loss before reclassifications	(2,729)	(460)	—	(7,639)	(10,828)
Amounts reclassified from accumulated other comprehensive income (loss)	—	—	—	6,777	6,777
Net current period other comprehensive (loss) income	\$(2,729)	\$(460)	\$ —	\$(862)	\$(4,051)
Amounts reclassified to accumulated deficit pursuant to adoption of new accounting standard	949	—	(25,069)	—	(24,120)
Balance at March 31, 2018	\$(22,811)	\$(1,054)	\$ —	\$(15,878)	\$(39,743)

Unrealized Holding Gains (Losses), Net
 of Tax

	Foreign Currency Translation Adjustment	On Available- Debt Securities	On For-Sale Equity Securities	On Foreign Currency Forward Contracts	Total
	(in thousands)				
Balance at December 31, 2016	\$(7,862)	—	—	—	\$(7,862)