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, 2020 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: 001-36066

PARATEK PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**33-0960223**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

75 Park Plaza
Boston, MA 02116
(617) 807-6600
(Address, including zip code, and telephone number, including area code, of registrant's principal executive office)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	PRTK	The Nasdaq Global Market

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 every Interactive Data File required to be submitted 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 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	☐		

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 Act). Yes ☐ No ☒

As of April 30, 2020, there were 43,132,044 shares of the registrant's common stock, par value $0.001 per share, outstanding.

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

Paratek Pharmaceuticals, Inc.
Condensed Consolidated Balance Sheets
(in thousands, except for share and par value amounts)
(unaudited)

	March 31, 2020	December 31, 2019
Assets		
Current assets		
Cash and cash equivalents	$ 124,624	$ 102,302
Marketable securities	70,166	113,077
Restricted cash	630	324
Accounts receivable, net	10,887	8,475
Inventories, net	13,472	11,579
Other receivables	1,383	1,108
Prepaid and other current assets	5,844	6,489
Total current assets	227,006	243,354
Long-term restricted cash	2,261	3,007
Fixed assets, net	1,094	1,227
Goodwill	829	829
Right-of-use assets	2,322	2,514
Other long-term assets	148	148
Total assets	$ 233,660	$ 251,079
Liabilities and Stockholders' Deficit		
Current liabilities		
Accounts payable	$ 663	$ 4,116
Accrued expenses	18,100	16,696
Current portion of long-term debt	20,751	—
Other current liabilities	3,595	3,388
Total current liabilities	43,109	24,200
Long-term debt	240,299	260,728
Long-term lease liabilities	1,838	2,095
Other liabilities	3,652	3,703
Total liabilities	288,898	290,726
Commitments and contingencies (Note 17)		
Stockholders' deficit		
Preferred stock:		
Undesignated preferred stock: $0.001 par value; 5,000,000 authorized; no shares issued and outstanding	—	—
Common stock, $0.001 par value, 100,000,000 shares authorized, 42,374,026 and 39,827,749 issued and outstanding at March 31, 2020 and December 31, 2019, respectively	42	40
Additional paid-in capital	683,124	671,497
Accumulated other comprehensive income	471	74
Accumulated deficit	(738,875)	(711,258)
Total stockholders' deficit	(55,238)	(39,647)
Total liabilities and stockholders' deficit	$ 233,660	$ 251,079

See accompanying notes to unaudited condensed consolidated financial statements.

Paratek Pharmaceuticals, Inc.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except share and per share amounts)
(unaudited)

	Three Months Ended March 31,	
	2020	2019
Product revenue, net	$ 7,303	$ 1,347
Government contract service revenue	337	—
Collaboration and royalty revenue	280	251
Net revenue	$ 7,920	$ 1,598
Expenses:		
Cost of product revenue	1,471	206
Research and development	6,389	11,392
Selling, general and administrative	23,638	23,316
Total operating expenses	31,498	34,914
Loss from operations	(23,578)	(33,316)
Other income and expenses:		
Interest income	705	946
Interest expense	(4,826)	(3,226)
Other gains (losses), net	82	(14)
Net loss	$ (27,617)	$ (35,610)
Other comprehensive loss		
Unrealized gain on available-for-sale securities, net of tax	397	200
Comprehensive loss	$ (27,220)	$ (35,410)
Basic and diluted net loss per common share	$ (0.66)	$ (1.10)
Weighted average common stock outstanding		
Basic and diluted	41,641,203	32,334,563

See accompanying notes to unaudited condensed consolidated financial statements.

Paratek Pharmaceuticals, Inc.
Condensed Consolidated Statements of Cash Flows
(in thousands)
(unaudited)

	For the Three Months Ended March 31,	
	2020	2019
Net loss	$ (27,617)	$ (35,610)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation, amortization and accretion	70	(485)
Stock-based compensation expense	2,535	3,863
Noncash interest expense	4,542	2,748
Changes in operating assets and liabilities		
Accounts receivable and other current assets	(2,079)	(2,348)
Purchase of prepaid interest - marketable securities	21	—
Inventories	(137)	(1,379)
Operating lease right-of-use asset	192	173
Accounts payable and accrued expenses	(7,758)	(1,776)
Operating lease liability	(256)	(990)
Other liabilities and other assets	161	48
Net cash used in operating activities	(30,326)	(35,756)
Investing activities		
Purchase of fixed assets	(253)	(11)
Purchase of marketable securities	(19,631)	—
Proceeds from maturities of marketable securities	63,000	70,000
Net cash provided by investing activities	43,116	69,989
Financing activities		
Proceeds from sale of common stock, net of costs	9,092	—
Net cash provided by financing activities	9,092	—
Net increase in cash, cash equivalents and restricted cash	21,882	34,233
Cash, cash equivalents and restricted cash at beginning of period	105,633	47,502
Cash, cash equivalents and restricted cash at end of period	$ 127,515	$ 81,735
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION		
Cash paid for interest	$ 2,463	$ 1,471
Purchases of equipment included in accrued expenses	$ 87	—

See accompanying notes to unaudited condensed consolidated financial statements.

Paratek Pharmaceuticals, Inc.
Condensed Consolidated Statements of Stockholders' Equity (Deficit)
(in thousands, except share amounts)
(unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balances at December 31, 2019	39,827,749	$ 40	$ 671,497	$ 74	$ (711,258)	$ (39,647)
Issuance of common stock, net of expenses	2,334,107	2	$ 9,092	—	—	9,094
Vesting of restricted stock unit awards	212,170	—	—	—	—	—
Employee stock purchase plan expense	—	—	35	—	—	35
Unrealized gain on available-for-sale securities, net of tax	—	—	—	397	—	397
Stock-based compensation expense	—	—	2,500	—	—	2,500
Net loss	—	—	—	—	(27,617)	(27,617)
Balances at March 31, 2020	42,374,026	$ 42	$ 683,124	$ 471	$ (738,875)	$ (55,238)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balances at December 31, 2018	32,259,363	$ 32	$ 630,142	$ (128)	$ (582,468)	$ 47,578
Vesting of restricted stock unit awards	156,614	—	—	—	—	—
Employee stock purchase plan expense	—	—	24	—	—	24
Unrealized gain on available-for-sale securities, net of tax	—	—	—	200	—	200
Stock-based compensation expense	—	—	3,839	—	—	3,839
Net loss	—	—	—	—	(35,610)	(35,610)
Balances at March 31, 2019	32,415,977	$ 32	$ 634,005	$ 72	$ (618,078)	$ 16,031

1. Description of the business

Paratek Pharmaceuticals, Inc., or the Company or Paratek, is a Delaware corporation with its corporate office in Boston, Massachusetts and an office in King of Prussia, Pennsylvania.

The Company is a commercial-stage biopharmaceutical company focused on the development and commercialization of novel life-saving therapies for life-threatening diseases or other public health threats for civilian, government and military use. The Company has used its expertise in biology and tetracycline chemistry to create chemically diverse and biologically distinct small molecules derived from the minocycline core structure. The Company's United States, or U.S., Food and Drug Administration, or FDA, approved commercial product, NUZYRA® (omadacycline) is a once-daily oral and intravenous antibiotic for the treatment of adult patients with community-acquired bacterial pneumonia, or CABP, and acute skin and skin structure infections, or ABSSSI, caused by susceptible pathogens. SEYSARA® (sarecycline) is an FDA-approved product with respect to which the Company has exclusively licensed in the U.S. and the People's Republic of China, or the PRC, Hong Kong and Macau, or the greater China region, certain rights to Almirall, LLC, or Almirall. SEYSARA is currently being marketed by Almirall in the U.S. as a new once-daily oral therapy for the treatment of moderate to severe acne vulgaris. With respect to the Company's technology as it relates to sarecycline, the Company retains development and commercialization rights in all countries other than the U.S. and the greater China region, and in February 2020, the Company exclusively licensed from Almirall certain technology owned or in-licensed by Almirall or its affiliates that is necessary or useful to develop or commercialize sarecycline outside of the U.S. Almirall plans to develop sarecycline for acne in China, with a submission to the China National Medical Products Administration, or NMPA, expected in 2023.

The Company has incurred significant losses since inception in 1996. The Company has generated an accumulated deficit of $738.9 million through March 31, 2020 and may require substantial additional funding in connection with the Company's continuing operations to support clinical development and commercialization activities associated with NUZYRA. Based upon the Company's current operating plan, it anticipates that its cash, cash equivalents and available for sale marketable securities of $194.8 million as of March 31, 2020 will enable the Company to fund operating expenses and capital expenditure requirements through at least the next twelve months from the issuance of the financial statements included in this Quarterly Report on Form 10-Q. The Company expects to finance future cash needs primarily through a combination of product sales, royalties, public or private equity offerings, debt or other structured financings, strategic collaborations and grant funding. The Company is subject to risks common to companies in the biopharmaceutical industry, including, but not limited to, risks of failure of preclinical studies and clinical trials, the need to obtain additional financing to fund the future development of the Company's product candidates, the need to obtain compliant product from third party manufacturers, the need to obtain marketing approval for the Company's product candidates, the need to successfully commercialize and gain market acceptance of product candidates, the risks of manufacturing product with an external supply chain, dependence on key personnel, and compliance with government regulations as well as the risks discussed in the "Risk Factors" section of the Company's Annual Report on Form 10-K for the year ended December 31, 2019, as filed with the U.S. Securities and Exchange Commission, or the SEC, on March 10, 2020, or the 2019 Form 10-K, and in the Company's other filings with the SEC and in the "Risk Factors" section of this Quarterly Report on Form 10-Q.

2. Summary of Significant Accounting Policies and Basis of Presentation

Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP, as found in the Accounting Standards Codification, or ASC, and Accounting Standards Updates, or ASU, of the Financial Accounting Standards Board, or FASB, and pursuant to the rules and regulations of the SEC.

The accompanying condensed consolidated financial statements are unaudited. The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements as of and for the year ended December 31, 2019, and, in the opinion of management, reflect all normal recurring adjustments necessary for the fair presentation of the Company's financial position as of March 31, 2020 and December 31, 2019, results of operations for the three month periods ended March 31, 2020 and March 31, 2019, cash flows for the three month periods ended March 31, 2020 and March 31, 2019 and changes in stockholders' deficit for the three month periods ended March 31, 2020 and March 31, 2019.

The results of operations for the interim periods are not necessarily indicative of the results of operations to be expected for the year ending December 31, 2020. These unaudited interim condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements as of and for the year ended December 31, 2019, and notes thereto, which are included in the Company's 2019 Form 10-K.

Summary of Significant Accounting Policies

As of Mach 31, 2020, the Company's significant accounting policies and estimates, which are detailed in the Company's 2019 Form 10-K, have not changed.

Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements include the results of operations of Paratek Pharmaceuticals, Inc. and its wholly-owned subsidiaries, Paratek Pharma, LLC, Paratek Securities Corporation, Transcept Pharma, Inc., Paratek UK Limited, Paratek Royalty Corporation, and Paratek Ireland Limited. All significant intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of the accompanying unaudited condensed consolidated financial statements, in conformity with U.S. GAAP, requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, and expenses and the disclosure of contingent liabilities in the Company's financial statements. On an ongoing basis, the Company evaluates its estimates and judgments, including those related to, among other items, accounts receivable and related reserves, inventory and related reserves, goodwill, net product revenue, government contract service revenue, collaboration and royalty revenue, leases, stock-based compensation arrangements, manufacturing and clinical accruals, useful lives for depreciation and amortization of long-lived assets and valuation allowances on deferred tax assets. Actual results could differ from those estimates. Changes in estimates are reflected in reported results in the period in which they become known by the Company's management.

Segment and Geographic Information

Operating segments are defined as components of an enterprise engaging in business activities for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business in one operating segment.

Concentration of Credit Risk

Financial instruments that subject the Company to credit risk consist primarily of cash, restricted cash, and accounts receivable. The Company places its cash in an accredited financial institution and this balance is above federally insured amounts. The Company has no off-balance sheet concentrations of credit risk such as foreign currency exchange contracts, option contracts or other hedging arrangements.

Accounts receivable as of March 31, 2020 represents $7.2 million due from customers on sales of NUZYRA, net of prompt payment discounts, chargebacks, rebates and certain fees, as well as a $3.0 million milestone earned during the year ended December 31, 2019, but not yet received, under the Zai Collaboration Agreement (as defined below). The balance of accounts receivable as of March 31, 2020, includes revenue earned, but not yet received, of $0.4 million of royalties on SEYSARA sales under the Almirall Collaboration Agreement (as defined below) and XERAVA ™ (Eravacycline) sales under the Tetraphase License Agreement (as defined below), and $0.3 million of government contract service revenue earned, but not yet received, under the BARDA contract (as defined below). Refer to Note 8, *Government, License and Collaboration Agreements*, for further information on these agreements.

3. Cash and Cash Equivalents and Marketable Securities

The following is a summary of available-for-sale securities as of March 31, 2020 and December 31, 2019 (in thousands):

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
March 31, 2020				
U.S. treasury securities	$ 69,695	$ 471	$ —	$ 70,166
Total	$ 69,695	$ 471	$	$ 70,166
December 31, 2019				
U.S. treasury securities	$ 113,003	$ 89	$ (15)	$ 113,077
Total	$ 113,003	$ 89	$ (15)	$ 113,077

No available-for-sale securities held as of March 31, 2020 and December 31, 2019 had remaining maturities greater than twelve months.

4. Restricted Cash

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the condensed consolidated statement of cash flows that sum to the total of the same such amounts shown in the condensed consolidated statement of cash flows (in thousands):

	March 31, 2020	March 31, 2019
Cash and cash equivalents	$ 124,624	$ 81,219
Short-term restricted cash	630	266
Long-term restricted cash	2,261	250
Total cash, cash equivalents and restricted cash shown on the condensed consolidated statement of cash flows	$ 127,515	$ 81,735

Short-term restricted cash

On May 1, 2019, the Company deposited $4.0 million into an interest reserve account in conjunction with the funding of a royalty-backed loan agreement, or the Royalty-Backed Loan Agreement, executed with Healthcare Royalty Partners III, L.P. Payments of interest under the Royalty-Backed Loan Agreement are made quarterly using royalty payments received since the immediately preceding payment date under the Almirall Collaboration Agreement, as defined in Note 8, *Government, License and Collaboration Agreements*. On each interest payment date, if the royalty payments received do not equal the total interest due for the respective quarter, the Company will cover the balance of the interest payment due from the interest reserve account. Refer to Note 13, *Long-Term Debt*, for further details. As of March 31, 2020 and December 31, 2019, restricted cash of $0.6 million and $0.3 million, respectively, represented the estimated amount that is expected to be paid to Healthcare Royalty Partners III, L.P. out of the interest reserve account within the next twelve months.

Long-term restricted cash

The Company leases its Boston, Massachusetts office space under a non-cancelable operating lease. Refer to Note 14, *Leases*, for further details. In accordance with the lease, the Company has a cash-collateralized irrevocable standby letter of credit in the amount of $0.3 million as of both March 31, 2020 and December 31, 2019, naming the landlord as beneficiary.

As of March 31, 2020 and December 31, 2019, long term restricted cash of $2.0 million and $2.7 million, respectively, represented the remaining balance in the interest reserve account that is expected to be paid to Healthcare Royalty Partners III, L.P. after March 31, 2021.

5. Inventories, Net

The following table presents inventories, net (in thousands):

	March 31, 2020	December 31, 2019
Work in process	$ 9,598	$ 9,330
Finished goods	3,874	2,249
Total inventories, net	$ 13,472	$ 11,579

When recorded, inventory reserves reduce the carrying value of inventories to their net realizable value. The Company reviews inventories on hand at least quarterly and records provisions for estimated excess, slow-moving and obsolete inventory, as well as inventory with a carrying value in excess of net realizable value.

6. Fixed Assets, Net

Fixed assets, net, consists of the following (in thousands):

	March 31, 2020	December 31, 2019
Office equipment	$ 866	$ 866
Machinery and equipment	567	567
Computer equipment	412	412
Computer software	798	798
Leasehold improvements	920	920
Gross fixed assets	3,563	3,563
Less: Accumulated depreciation and amortization	(2,469)	(2,336)
Total fixed assets, net	$ 1,094	$ 1,227

7. Net Loss Per Share

Basic net loss per share is calculated by dividing the net loss by the weighted-average number of common stock outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of common share equivalents outstanding for the period determined using the treasury-stock method or the if-converted method, as applicable. For purposes of this calculation, shares of common stock issuable upon conversion of convertible debt, stock options, restricted stock units, warrants to purchase common stock, and shares issuable under the employee stock purchase plan are considered to be common stock equivalents and are only included in the calculation of diluted net loss per share when their effect is dilutive.

The following outstanding shares subject to stock options and restricted stock units, warrants to purchase shares of common stock, common stock issuable upon conversion of convertible debt and shares issuable under the employee stock purchase plan were antidilutive due to a net loss in the periods presented and, therefore, were excluded from the dilutive securities computation as of the three months ended March 31, 2020 and 2019 as indicated below:

	Three Months Ended March 31,	
	2020	2019
Excluded potentially dilutive securities (1):		
Common stock issuable under outstanding convertible notes	10,377,361	10,377,361
Shares subject to outstanding options to purchase common stock	3,309,900	3,815,951
Unvested restricted stock units	4,444,454	2,837,588
Shares subject to warrants to purchase common stock	104,455	104,455
Shares issuable under employee stock purchase plan	798,187	979,833
Totals	19,034,357	18,115,188

(1) The number of shares is based on the maximum number of shares issuable on exercise or conversion of the related securities as of March 31, 2020. Such amounts have not been adjusted for the treasury-stock method or weighted-average outstanding calculations as required if the securities were dilutive.

8. Government, License and Collaboration Agreements

Biomedical Advanced Research and Development Authority

On December 18, 2019, the Company entered into a five-year contract with the Biomedical Advanced Research and Development Authority, or BARDA, a division of the U.S. Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response, herein referred to as the BARDA contract, with an option to extend up to ten years, to support the development of NUZYRA for the treatment of pulmonary anthrax, FDA post-marketing requirements, or PMRs, associated with the initial NUZYRA approval, and with an option for BARDA to procure up to 10,000 treatment courses of NUZYRA for the Strategic National Stockpile, or SNS.

The BARDA contract could result in payments to the Company of up to approximately $284.7 million and consists of a five-year base period-of-performance and a total contract period-of-performance (base period plus option exercises) of up to ten years. Under the base period-of-performance, the Company will conduct activities necessary to (i) allow the product to be used under an Emergency Use Authorization (ii) obtain licensure of NUZYRA through a supplemental New Drug Application, or NDA, submission for anthrax, and (iii) provide up to 2,500 treatment courses of the drug product to be stored as vendor managed inventory and subsequently delivered to the SNS. The contract options may be exercised to perform additional studies necessary for licensure, support post-licensure commitments as required by the FDA, additional security requirements, and procure additional treatment regimens.

Under the terms of the agreement, BARDA awarded initial funding of approximately $59.4 million for the development of NUZYRA for the treatment of pulmonary anthrax and the purchase of an initial 2,500 treatment courses of NUZYRA to add to the current SNS. The contract provides for additional staged funding, including approximately $76.8 million for existing FDA PMR commitments that began in April 2020 and approximately $20.4 million for manufacturing-related requirements, which also began in April 2020. BARDA exercised the options to award the initial funding in December 2019 and the additional staged funding in April 2020. The additional staged funding will support all FDA PMRs associated with the approval of NUZYRA, including CABP and pediatric studies as well as a five-year post-marketing bacterial surveillance study, and support the U.S. onshoring and security requirements of Paratek manufacturing activities for NUZYRA.

The remaining funding under the BARDA contract includes the potential for approximately $12.7 million to support the development of NUZYRA for the prophylaxis of anthrax and a maximum of approximately $115.4 million to provide for three additional purchases of NUZYRA, each of which will be triggered upon development milestones related to the anthrax treatment development program.

The BARDA contract contains a number of terms and conditions that are customary for government contracts of this nature, including provisions giving the government the right to terminate the contract at any time for its convenience.

The Company recognized $0.3 million of government contract service revenue under the BARDA contract during the three months ended March 31, 2020.

Tetraphase Pharmaceuticals, Inc.

On March 18, 2019, Paratek and Tetraphase Pharmaceuticals, Inc., or Tetraphase, entered into a License Agreement, or the Tetraphase License Agreement. Under the terms of the Tetraphase License Agreement, Paratek granted to Tetraphase a non-exclusive, worldwide, royalty-bearing license, with the right to grant sublicenses, under certain Paratek patents, to develop, make, have, use, import, offer for sale and sell the licensed product, or XERAVA, which is a drug for the treatment of complicated, intra-abdominal infections caused by bacteria, which was approved by the FDA in August 2018.

The terms of the Tetraphase License Agreement provide for Tetraphase to pay Paratek royalties at a low single digit percent on net product revenues of the licensed product sold in the U.S. Tetraphase's obligation to pay royalties with respect to the licensed product shall be retroactive to the date of the first commercial sale of the licensed product in the U.S., which occurred in February 2019. Tetraphase is currently selling XERAVA in the U.S.

The Tetraphase License Agreement will continue until the expiration of and payment by Tetraphase of all Tetraphase's payment obligations, which is when there are no longer any valid claims of the licensed Paratek patents that would be infringed, in the absence of a license, by a manufacture, use, or sales of the licensed product. The principal licensed patent under the Tetraphase License Agreement is expected to expire in October 2023.

The Company recognized an insignificant amount of royalty revenue for the three months ended March 31, 2020 and 2019 under the Tetraphase License Agreement.

Zai Lab (Shanghai) Co., Ltd.

On April 21, 2017, Paratek Bermuda Ltd., a wholly-owned subsidiary of Paratek Pharmaceuticals, Inc., and Zai entered into a License and Collaboration Agreement, or the Zai Collaboration Agreement. On December 18, 2019 Paratek Bermuda Ltd. assigned its rights under the Zai Collaboration Agreement to Paratek Pharmaceuticals, Inc. Under the terms of the Zai Collaboration Agreement, Paratek granted Zai an exclusive license to develop, manufacture and commercialize omadacycline, or the licensed product, in the PRC, Hong Kong, Macau and Taiwan, or the Zai territory, for all human therapeutic and preventative uses other than biodefense. Zai will be responsible for the development, manufacturing and commercialization of the licensed product in the Zai territory, at its sole cost with certain assistance from Paratek.

Under the terms of the Zai Collaboration Agreement, Paratek earned an upfront cash payment of $7.5 million in April 2017, $5.0 million upon approval by the FDA of a New Drug Application, or NDA, submission in the CABP indication, in October 2018, and $3.0 million upon submission of the first regulatory approval application for a licensed product in the PRC in December 2019. The Center for Drug Evaluation of China's NMPA granted priority review status to the NDA submitted by Zai for the treatment of CABP and ABSSI in May 2020. Paratek is eligible to receive up to $6.0 million in potential future regulatory milestone payments and $40.5 million in potential future commercial milestone payments, the next being $6.0 million upon regulatory approval for a licensed product in the PRC. The terms of the Zai Collaboration Agreement also provide for Zai to pay Paratek tiered royalties at a low double digit to mid-teen percent on net sales of the licensed product in the Zai territory.

The Zai Collaboration Agreement will continue, on a region-by-region basis, until the expiration of and payment by Zai of all Zai's payment obligations, which is until the later of: (i) the abandonment, expiry or final determination of invalidity of the last valid claim within the Paratek patents that covers the licensed product in the region in the Zai territory in the manner that Zai or its affiliates or sublicensees exploit the licensed product or intend for the licensed product to be exploited; or (ii) the eleventh anniversary of the first commercial sale of such licensed product in such region.

The Company evaluated the Zai Collaboration Agreement under ASC Topic 606, *Revenue from Contracts with Customers*. The Company determined that there were six material promises under the Zai Collaboration Agreement: (i) an exclusive license to develop, manufacture and commercialize omadacycline in the Zai territory, (ii) the initial technology transfer, (iii) a transfer of certain materials and materials know-how, (iv) optional manufacturing services, (v) optional regulatory support and (vi) optional commercialization support. The Company determined that the exclusive license and initial technology transfer were not distinct from one another, as the license has limited value without the transfer of the Company's technology; which will allow Zai to develop the manufacturing process and commercialize omadacycline in the Zai territory in the timeline anticipated under the agreement. Without the technology transfer, Zai would incur additional costs to recreate the Company's know-how. Therefore, the license and initial technology transfer are combined as a single performance obligation. The transfer of materials is a single distinct performance obligation. The Company evaluated the option rights for manufacturing services, regulatory support and commercialization support to determine whether they represent or include material rights to Zai and concluded that the options were not issued at a discount, and therefore do not represent material rights. As such, they are not considered performance obligations at the outset of the arrangement.

Based on these assessments, the Company determined that two performance obligations existed at the outset of the Zai Collaboration Agreement: (i) the exclusive license combined with the initial technology transfer and (ii) the transfer of certain materials.

The Company satisfied both performance obligations and recognized the upfront payment of $7.5 million as revenue in the year ended December 31, 2017. Future potential milestone payments were excluded from the transaction price as they are fully constrained as the risk of significant reversal has not yet been resolved. The achievement of the future potential milestones is not within the Company's control and is subject to certain research and development success or regulatory approvals and therefore carry significant uncertainty. The Company will reevaluate the likelihood of achieving future milestones at the end of each reporting period. As all performance obligations have been satisfied, if the risk of significant reversal is resolved, any future milestone revenue from the arrangement will be recognized as revenue in the period the risk is relieved.

As FDA approval was not within the control of the Company and was not obtained until October 2018, the achievement of the milestone was not deemed probable and the risk of significant reversal of revenue was not resolved until that time. Upon the FDA approval, the uncertainty related to this milestone was resolved and a significant reversal of revenue would not occur in future periods. As such, the $5.0 million milestone payment was recognized as revenue at the time of FDA approval in the fourth quarter of 2018.

As submission of the first regulatory approval application for a licensed product in the PRC is not within the control of the Company and was not obtained until December 2019, the achievement of the milestone was not was not deemed probable and the risk of significant reversal of revenue was not resolved until that time. Upon submission, the uncertainty related to this milestone was resolved and a significant reversal of revenue would not occur in future periods. As such, the $3.0 million milestone payment was recognized as revenue at the time of the regulatory approval application submission in the fourth quarter of 2019.

As regulatory approval in the PRC is not within the control of the Company, the achievement of the milestone was not deemed probable and the risk of significant reversal of revenue was not resolved as of March 31, 2020. As such, the next milestone payment was not recognized as revenue in the year ended December 31, 2019 or the three months ended March 31, 2020.

Almirall, LLC

In July 2007, the Company and Warner Chilcott Company, Inc. (which became a part of Allergan plc, or Allergan), entered into a collaborative research and license agreement under which the Company granted Allergan an exclusive license to research, develop, manufacture and commercialize tetracycline products for use in the U.S. for the treatment of acne and rosacea. In September 2018, Allergan assigned to Almirall its rights under the collaboration agreement, or the Almirall Collaboration Agreement. Since Allergan did not exercise its development option with respect to the treatment of rosacea prior to initiation of a Phase 3 trial for the product, the license grant to Allergan, which was assigned to Almirall, converted to a non-exclusive license for the treatment of rosacea as of December 2014.

Under the terms of the Almirall Collaboration Agreement, Almirall is responsible for and is obligated to use commercially reasonable efforts to develop and commercialize tetracycline compounds that are specified in the agreement for the treatment of acne. The Company has agreed during the term of the Almirall Collaboration Agreement not to directly or indirectly develop or commercialize any tetracycline compounds in the U.S. for the treatment of acne, and Almirall has agreed during the term of the Almirall Collaboration Agreement not to directly or indirectly develop or commercialize any tetracycline compound included as part of the agreement for any use other than as provided in the Almirall Collaboration Agreement.

In February 2020, the Company finalized a license agreement with Almirall granting the Company exclusive rights to develop, manufacture and commercialize sarecycline outside of the U.S., including rights of reference to Almirall's clinical data thus formalizing the Company's rights to develop, manufacture and commercialize sarecycline in the rest of the world. In connection with that license, the Company then exclusively licensed Almirall pursuant to the Almirall China License Agreement, the rights to develop, manufacture and commercialize sarecycline in the greater China region. Almirall currently holds a nonexclusive license to develop and commercialize sarecycline for the treatment of rosacea in the U.S., and in the U.S., Paratek cannot grant rights on back-up compounds, lead candidate(s), or products licensed to Almirall for rosacea.

The Almirall Collaboration Agreement contains two performance obligations: (i) an exclusive license to research, develop and commercialize tetracycline products for use in the U.S. for the treatment of acne and rosacea and (ii) research and development services. The performance obligation to deliver the license was satisfied upon execution of the Almirall Collaboration Agreement in July 2007. All research and development services were completed by December 2010. The options provided to Almirall for additional development services do not provide Almirall with a material right as these services will not be provided at a significant or incremental discount. As such, the option services are not performance obligations. As the performance obligation to deliver the license was satisfied in 2007 and research and development services were completed by December 2010, all subsequent milestone payments are recognized as revenue when the risk of significant reversal is resolved, generally when the milestone event occurs.

The Company received an upfront fee in the amount of $4.0 million upon the execution of the Almirall Collaboration Agreement, $1.0 million upon filing of an Investigational New Drug Application in 2010, $2.5 million upon initiation of Phase 2 trials in 2012 and $4.0 million upon initiation of Phase 3 trials associated with the Almirall Collaboration Agreement in December 2014.

In December 2017, the FDA's acceptance of the NDA for sarecycline was received, triggering a milestone payment of $5.0 million earned upon acceptance of an NDA for a product licensed under the Almirall Collaboration Agreement.

In October 2018, the FDA's regulatory approval of sarecycline, under the tradename SEYSARA, triggered the last milestone payment under the Almirall Collaboration Agreement of $12.0 million. Since FDA approval of SEYSARA was outside of the Company's control and not obtained until October 2, 2018, the achievement of the milestone was not deemed probable and the risk of significant reversal of revenue was not resolved until such time. Upon the FDA approval, the uncertainty related to this milestone was resolved and a significant reversal of revenue would not occur in future periods. As such, the $12.0 million milestone payment was recognized as revenue at the time of FDA approval in the fourth quarter of 2018.

Almirall is also obligated to pay the Company tiered royalties, ranging from the mid-single digits to the low double digits, based on net sales of tetracycline compounds developed under the Almirall Collaboration Agreement, with a standard royalty reduction post patent expiration for such product for the remainder of the royalty term. Almirall's obligation to pay the Company royalties for each tetracycline compound it commercializes under the Almirall Collaboration Agreement expires on the later of the expiration of the last to expire patent that covers the tetracycline compound in the U.S. and the date on which generic drugs that compete with the tetracycline compound reach a certain threshold market share in the U.S.

Royalty payments are recognized when the sales occur. The Company recognized $0.2 million of royalty revenue recognized for sales of SEYSARA in the U.S. by Almirall for the three months ended March 31, 2020 under the Almirall Collaboration Agreement. During the first quarter of 2020, royalty revenue recognized for sales of SEYSARA in the U.S. was estimated using third party data and an approximation of discounts and allowances to calculate net product sales, to which the Company then applied the applicable royalty percentage specified in the Almirall Collaboration Agreement. Differences between actual and estimated royalty revenues will be adjusted for in the period in which they become known, which is expected to be the following quarter. During the three months ended March 31, 2020, the Company recorded an adjustment of $0.1 million to decrease the estimated royalty revenue to the actual royalty revenue payment received for sales that occurred during the three months ended December 31, 2019.

In February 2020, the Company entered into (i) an ex-U.S. license agreement with Almirall, or the Ex-U.S. License, under which Almirall granted the Company an exclusive license in and to certain technology owned or in-licensed by Almirall or its affiliates in order to research, develop, manufacture and commercialize sarecycline for the treatment of acne in all countries other than the U.S. and (ii) a license agreement with Almirall that is specific to China, or the China License, under which the Company granted to Almirall an exclusive license in and to certain technology owned or in-licensed by the Company or its affiliates in order to research, develop and commercialize sarecycline for the treatment of acne in the greater China region.

Under the terms of the China License, Almirall is responsible for and is obligated to use commercially reasonable efforts to develop and commercialize sarecycline for the treatment of acne, including requirements to (i) file an Investigational New Drug Application (or analogous foreign submission) for sarecycline for the treatment of acne in the greater China region in calendar year 2020, (ii) receive regulatory approval for sarecycline for the treatment of acne in the greater China region within seven years following such submission and (iii) commercialize sarecycline for the treatment of acne in the greater China region within eighteen months after obtaining regulatory approval. If Almirall does not satisfy the diligence requirements set forth in subclauses (ii) or (iii) above, the Company may terminate the China License.

The Company has agreed during the term of the Ex-U.S. License to use commercially reasonable efforts to not, directly or indirectly, make sarecycline products commercialized by the Company, its affiliates or its sublicensees available for resale in the U.S., and Almirall has agreed during the term of the Ex-U.S. License to use commercially reasonable efforts to not, directly or indirectly, make sarecycline products commercialized by Almirall, their affiliates or their sublicensees available for resale outside of the greater China region. Similarly, the Company has agreed during the term of the China License to use commercially reasonable efforts to not, directly or indirectly, make sarecycline products commercialized by the Company, its affiliates or its sublicensees available for resale in the greater China region, and Almirall has agreed during the term of the China License to use commercially reasonable efforts to not, directly or indirectly, make sarecycline products commercialized by Almirall, their affiliates or their sublicensees available for resale outside of the greater China region, other than as provided in the Almirall Collaboration Agreement.

In connection with the Ex-U.S. License, the Company pays Almirall, on a country-by-country and product-by-product basis, (i) for eight years following the first commercial sale of a sarecycline product in a country, a royalty in the middle-single digits on its or its affiliates' nets sales of sarecycline products outside of the U.S., subject to certain standard reductions, and (ii) for fifteen years following the first commercial sale of a sarecycline product in a country, a percentage of the consideration (e.g., milestones, royalties) we receive from sublicensees in connection with developing and commercializing sarecycline outside of the U.S., which ranges from one-fifth to one-half of such consideration, subject to certain standard reductions. In connection with the China License, for fifteen years following the first commercial sale of a sarecycline product in China, Almirall pays the Company a royalty in the high-single digits on their, their affiliates' or their sublicensees' net sales of sarecycline products in the greater China region, subject to certain standard reductions.

Tufts University

In February 1997, the Company and Tufts University, or Tufts, entered into a license agreement under which the Company acquired an exclusive license to certain patent applications and other intellectual property of Tufts related to the drug resistance field to develop and commercialize products for the treatment or prevention of bacterial or microbial diseases or medical conditions in humans or animals or for agriculture. The Company subsequently entered into eleven amendments to that agreement, collectively the Tufts License Agreement, to include patent applications filed after the effective date of the original license agreement, to exclusively license additional technology from Tufts, to expand the field of the agreement to include disinfectant applications, and to change the

royalty rate and percentage of sublicense income paid by the Company to Tufts under sublicense agreements with specified sublicensees. The Company is obligated under the Tufts License Agreement to provide Tufts with annual diligence reports and a business plan and to meet certain other diligence milestones. The Company has the right to grant sublicenses of the licensed rights to third parties, which will be subject to the prior approval of Tufts unless the proposed sublicensee meets a certain net worth or market capitalization threshold. The Company is primarily responsible for the preparation, filing, prosecution and maintenance of all patent applications and patents covering the intellectual property licensed under the Tufts License Agreement at its sole expense. The Company has the first right, but not the obligation, to enforce the licensed intellectual property against infringement by third parties.

The Company issued Tufts 1,024 shares of the Company's common stock on the date of execution of the original license agreement, and the Company was required to make certain payments of up to $0.3 million to Tufts upon the achievement by products developed under the Tufts License Agreement of specified development and regulatory approval milestones. The Company made a payment of $50,000 to Tufts for achieving the first milestone following commencement of the Phase 3 clinical trial for omadacycline and a payment of $100,000 to Tufts for achieving the second milestone following its first marketing application submitted in the U.S. The third, and final, payment of $150,000 became due upon FDA approval of omadacycline in October 2018. The Company is also obligated to pay Tufts a minimum royalty payment in the amount of $25,000 per year. In addition, the Company is obligated to pay Tufts royalties based on gross sales of products, as defined in the agreement, ranging in the low single digits depending on the applicable field of use for such product sale. If the Company enters into a sublicense under the Tufts License Agreement, based on the applicable field of use for such product, the Company will be obligated to pay Tufts (i) a percentage, ranging from 10% to 14% (ten percent to fourteen percent) for compounds other than omadacycline, and a percentage in the single digits for the compound omadacycline, of that portion of any sublicense issue fees or maintenance fees received by the Company that are reasonably attributable to the sublicense of the rights granted to the Company under the Tufts License Agreement and (ii) the lesser of (a) a percentage, ranging from the low tens to the high twenties based on the applicable field of use for such product, of the royalty payments made to the Company by the sublicensee or (b) the amount of royalty payments that would have been paid by the Company to Tufts if the Company had sold the product.

Unless terminated earlier, the Tufts License Agreement will expire at the same time as the last-to-expire patent in the patent rights licensed to the Company under the agreement and after any such expiration the Company will continue to have an exclusive, fully-paid-up license to such intellectual property licensed from Tufts. Tufts has the right to terminate the agreement upon 30 days' notice should the Company fail to make a material payment under the Tufts License Agreement or commit a material breach of the agreement and not cure such failure or breach within such 30-day period, or if, after the Company has started to commercialize a product under the Tufts License Agreement, the Company ceases to carry on its business for a period of 90 consecutive days. The Company has the right to terminate the Tufts License Agreement at any time upon 180 days' notice. Tufts has the right to convert the Company's exclusive license to a non-exclusive license if the Company does not commercialize a product licensed under the Tufts License Agreement within a specified time period.

The Company incurred $0.1 million and an insignificant amount of royalty expense for the three months ended March 31, 2020 and March 31, 2019, respectively.

Past Collaborations

Novartis International Pharmaceutical Ltd.

In September 2009, the Company and Novartis International Pharmaceutical Ltd., or Novartis, entered into a Collaborative Development, Manufacture and Commercialization License Agreement, or the Novartis Agreement, which provided Novartis with a global, exclusive patent and technology license for the development, manufacturing and marketing of omadacycline. The Novartis Agreement was terminated by Novartis without cause in June 2011 and the termination was effective 60 days later. The Company and Novartis subsequently entered in a letter agreement in January 2012, or the Novartis Letter Agreement, as amended, pursuant to which we reconciled shared development costs and expenses and granted Novartis a right of first negotiation with respect to commercialization rights of omadacycline following approval of omadacycline from the FDA, European Medicines Agency, or any regulatory agency, but only to the extent the Company had not previously granted such commercialization rights related to omadacycline to another third party as of any such approval. The Company also agreed to pay Novartis a 0.25% royalty, to be paid from net sales received by the Company in any country following the launch of omadacycline in that country and continuing until the later of expiration of the last active valid patent claim covering such product in the country of sale and 10 years from the date of first commercial sale in such country. The first royalty payment became payable as of March 31, 2019. The amended Novartis Letter Agreement resulted in a long-term liability in the amount of $3.4 million and $3.4 million as of March 31, 2020 and December 31, 2019, respectively, included within "Other liabilities" on the Company's consolidated balance sheet. In addition, a short-term liability of $0.1 million, included within "Other current liabilities" on the Company's consolidated balance sheet, exists as of March 31, 2020 that represents the portion of royalty payments due to Novartis within twelve months. There are no other payment obligations to Novartis under the Novartis Agreement or the amended Novartis Letter Agreement.

9. Capital Stock

In July 2019, the Company entered into an At the Market Sales Agreement, or the 2019 Sales Agreement, with Jefferies LLC, or Jefferies, and BTIG, LLC, or BTIG, under which it may offer and sell its common stock having aggregate sales proceeds of up to $50.0 million from time to time through Jefferies or BTIG as its sales agents. Sales of the Company's common stock through Jefferies or BTIG, if any, will be made by any method permitted by law deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act of 1933, as amended, including without limitation sales made directly on the Nasdaq Global Market or any other existing trading market for its common stock. Jefferies and BTIG will use commercially reasonable efforts to sell the Company's common stock from time to time, based upon instructions from the Company (including any price, time or size limits or other customary parameters or conditions we may impose). The Company will pay Jefferies or BTIG, as applicable, a commission of 3% of the gross sales proceeds of any common stock sold through Jefferies and BTIG under the 2019 Sales Agreement. The Company has also provided Jefferies and BTIG with customary indemnification rights.

The Company is not obligated to make any sales of common stock under the 2019 Sales Agreement. The Company sold 2,334,107 shares of common stock pursuant to the 2019 Sales Agreement for $9.1 million in proceeds, after deducting commissions of $0.3 million, during the three months ended March 31, 2020. As of May 6, 2020, $9.3 million remains available for sale under the 2019 Sales Agreement.

The offering of shares of the Company's common stock pursuant to the 2019 Sales Agreement will terminate upon the earlier of (i) the sale of all common stock subject to the 2019 Sales Agreement, or (ii) termination of the 2019 Sales Agreement in accordance with its terms.

Warrants to Purchase Common Stock

Warrants to purchase preferred stock with intrinsic value issued to HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P., and K/S Danish BioVenture, all beneficial owners of more than 5% of the Company's common stock, were exchanged for 9,614 warrants to purchase common stock in connection with the with the business combination between privately-held Paratek Pharmaceuticals, Inc. and Transcept Pharmaceuticals, Inc. in October 2014, or the Merger. These 9,614 warrants to purchase common stock have an exercise price of $0.15 per share and will, if not exercised, expire in 2021.

In connection with the Loan and Security Agreement, dated September 30, 2015, as amended from time to time, or the Hercules Loan Agreement, into which the Company entered with Hercules Technology II, L.P. and Hercules Technology III, L.P., together, Hercules, and certain other lenders and Hercules Technology Growth Capital, Inc. (as agent), the Company issued to each of Hercules Technology II, L.P. and Hercules Technology III, L.P. a warrant to purchase 16,346 shares of its common stock (32,692 shares of common stock in total) at an exercise price of $24.47 per share, or the Hercules Warrants, on September 30, 2015, which expire five years from issuance or at the consummation of a Public Acquisition, as defined in each of the Hercules Warrant agreements.

In connection with the second amendment to the Hercules Loan Agreement on December 12, 2016, the Company issued to each of Hercules Technology II, L.P. and Hercules Technology III, L.P. a warrant to purchase 18,574 shares of its common stock (37,148 shares of common stock in total) at an exercise price of $13.46 per share, or the Second Amendment Warrants.

In connection with the borrowing under the Hercules Loan Agreement on June 27, 2017, the Company issued an additional warrant to Hercules Capital, Inc. to purchase 5,374 shares of its common stock at an exercise price of $23.26 per share, or the Additional Warrant.

In connection with the fifth amendment to the Hercules Loan Agreement, on August 1, 2018, the Company issued to Hercules Capital, Inc. a warrant to purchase up to 19,627 shares of its common stock at an exercise price of $10.19 per share, or the Fifth Amendment Warrant.

The Hercules Warrants, Second Amendment Warrants, Additional Warrant and the Fifth Amendment Warrant, collectively referred to as the Warrants, may be exercised on a cashless basis. The Warrants are exercisable for a term beginning on the date of issuance and ending on the earlier to occur of five years (or seven years, in the case of the Fifth Amendment Warrant) from the date of issuance or the consummation of certain acquisitions of the Company as set forth in the various agreements for the Warrants.

10. Accrued Expenses

Accrued expenses consist of the following (in thousands):

	March 31, 2020	December 31, 2019
Accrued interest	$ 4,221	$ 2,264
Accrued compensation	3,632	7,580
Accrued sales allowances	2,188	1,492
Accrued commercial	1,874	1,445
Accrued inventory	1,756	125
Accrued manufacturing	1,713	1,026
Accrued contract research	1,226	1,612
Accrued professional fees	968	876
Accrued legal costs	394	181
Accrued other	128	95
Total	$ 18,100	$ 16,696

11. Fair Value Measurements

Financial instruments, including cash, cash equivalents, restricted cash, money market funds, U.S. treasury securities, accounts receivable, accounts payable, and accrued expenses are carried on the condensed consolidated financial statements at amounts that approximate fair value. The fair value of the Company's long-term debt is determined using current applicable rates for similar instruments as of the balance sheet date. The fair value of the Company's debt (including the Notes as defined in Note 13, *Long-Term Debt)*, is $175.7 million as of March 31, 2020. The fair value of the Company's debt was determined using Level 3 inputs. Fair values are based on assumptions concerning the amount and timing of estimated future cash flows and assumed discount rates, reflecting varying degrees of perceived risk.

The following table presents information about the Company's financial assets and liabilities that have been measured at fair value as of March 31, 2020 and December 31, 2019 and indicate the fair value hierarchy of the valuation inputs utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities or other inputs that are observable market data. Fair values determined by Level 3 inputs utilize unobservable data points for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability (in thousands):

Description	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
March 31, 2020				
Assets:				
U.S. treasury securities	$ 70,166	$ —	$ —	$ 70,166
Total Assets	$ 70,166	$ —	$ —	$ 70,166
December 31, 2019				
Assets:				
U.S. treasury securities	$ 113,077	$ —	$ —	$ 113,077
Total Assets	$ 113,077	$ —	$ —	$ 113,077

Marketable Securities

U.S. treasury securities fair values can be obtained through quoted market prices in active exchange markets and are therefore classified as Level 1.

12. Stock-Based and Incentive Compensation

Stock-based Compensation

The following table presents stock-based compensation expense included in the Company's condensed consolidated statements of operations and comprehensive loss (in thousands):

	Three Months Ended March 31,	
	2020	2019
Research and development expense	$ 587	$ 1,435
Selling, general and administrative expense	1,948	2,428
Total stock-based compensation expense	$ 2,535	$ 3,863

Stock-based compensation expense is estimated as of the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which generally represents the vesting period. The Company estimates the fair value of its stock options using the Black-Scholes option-pricing model. The weighted-average assumptions used to determine the fair value of the stock option grants is as follows:

	Three Months Ended March 31,	
	2020	2019
Volatility	61.9%	64.8%
Risk-free interest rate	1.3%	2.5%
Expected dividend yield	0.0%	0.0%
Expected life of options (in years)	5.6	5.6

Stock Option Plan Activity

The Company's Board of Directors adopted the Paratek Pharmaceuticals, Inc. 2015 Equity Incentive Plan, or the 2015 Plan, which was approved by Company stockholders at the annual meeting of shareholders held on June 9, 2015, reserving 1,200,000 shares of common stock for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock awards, RSU awards, performance stock awards, performance cash awards and other stock awards to directors, officers, employees and consultants. The 2015 Plan is intended to be the successor to and continuation of the Paratek Pharmaceuticals, Inc., 2006 Incentive Award Plan and the Paratek Pharmaceuticals, Inc. 2014 Equity Incentive Plan, or collectively, the Prior Plans. When the 2015 Plan became effective, no additional stock awards were granted under the Prior Plans, although all outstanding stock awards granted under the Prior Plans will continue to be subject to the terms and conditions as set forth in the agreements evidencing such stock awards and the terms of the Prior Plans. On January 1, 2020, 1,991,387 shares of common stock were automatically added to the shares authorized for issuance under the 2015 Plan pursuant to a "Share Reserve" provision contained in the 2015 Plan. The Share Reserve automatically increases on January 1 of each year, for the period commencing on (and including) January 1, 2016 and ending on (and including) January 1, 2025, in an amount equal to 5% of the total number of shares of common stock outstanding on December 31 of the preceding calendar year. Notwithstanding the foregoing, the Board of Directors of the Company may act prior to January 1 of a given year to provide that there will be no January 1 increase in the Share Reserve for such year or that the increase in the Share Reserve for such year will be a lesser number of shares of common stock than would otherwise automatically occur. Total shares available for future issuance under the 2015 Plan are 82,749 shares as of March 31, 2020.

The Company recognizes the stock-based compensation expense of awards subject to performance-based vesting conditions over the requisite service period, to the extent achievement of the performance condition is deemed probable relative to targeted performance using the accelerated attribution method. If achievement of the performance condition is not probable, but the award will vest based on the service condition, the Company recognizes the stock-based compensation expense over the requisite service period. A change in the requisite service period that does not change the estimate of the total stock-based compensation expense (i.e., it does not affect the grant-date fair value or quantity of awards to be recognized) is recognized prospectively over the remaining requisite service period.

During the three months ended March 31, 2020, the Company's Board of Directors granted 61,300 stock options and 2,495,950 RSUs to directors, executives and employees of the Company under the 2015 Plan. The stock option awards are subject to time-based vesting over a period of one to four years. The RSU awards granted to executives in February 2020 are subject to time-based vesting, with 1/3 of the shares vesting on December 10, 2020, or the Initial Vest Date, and an additional 1/3 of the shares vesting on the succeeding two anniversaries of the Initial Vesting Date. The RSU awards granted to non-executive employees of the Company in February 2020 are subject to time-based vesting and vest in three equal installments commencing on each of the one-year anniversaries of the grant date. The grants also included performance-based RSU, or PRSU, awards to certain executives and employees of the Company. The PRSU awards granted in February 2020 will vest as follows: (a) 25/55 on certain net product revenue achievements, (b) 15/55 on achievement of certain clinical milestones related to NUZYRA and (c) 15/55 on achievement of certain regulatory milestones related to NUZYRA. No stock-based compensation expense has been recognized related to the milestones above as the Company does not deem the achievement of the events to be probable as of March 31, 2020.

During the year ended December 31, 2019, the Company's Board of Directors granted PRSU awards to certain executives and employees of the Company in February 2019 and July 2019 under the 2015 Plan that will vest as follows: (a) 25/60 and (b) 25/60, each, on certain net product revenue achievements and (c) the remaining 10/60 on certain other business achievements. Since the Company believes it is probable that milestones (a) and (b) above will be achieved, the Company recognized stock-based compensation expense for a total of $0.4 million for the performance conditions during the three months ended March 31, 2020 using the accelerated attribution method. During the three months ended March 31, 2020, the Company's Board of Directors modified the vesting terms related to the PRSUs that were expected to time vest on attainment of certain other business achievements. The modification resulted in the recognition of an insignificant amount of stock-based compensation expense during the three months ended March 31, 2020.

During the year ended December 31, 2018, the Company's Board of Directors granted PRSU awards to certain executives and employees of the Company and those awards have vested or will vest as follows: (a) 10/55 shall be earned and time vest on achievement of European Medicines Agency, or EMA, filing preliminary validation, which occurred in October 2018, (b) 20/55 shall be earned and time vest on achievement of EMA approval of omadacycline, and (c) 25/55 shall be earned on achievement of the launch of omadacycline in the U.S. and time vest on the date that is 15 months following such launch date. During the year ended December 31, 2019, the Company's Board of Directors modified the vesting terms related to the PRSUs in (b) above which were expected to time vest on achievement of EMA approval of omadacycline. The Company determined the awards were probable of vesting under the modified conditions. The modification resulted in 136,000 shares vesting during the year ended December 31, 2019 and the recognition of stock-based compensation expense of $0.5 million during the year ended December 31, 2019.

The Company's Board of Directors adopted the Paratek Pharmaceuticals, Inc. 2015 Inducement Plan, or the 2015 Inducement Plan, in accordance with Nasdaq Rule 5635(c)(4), reserving 360,000 shares of common stock solely for the grant of inducement stock options to employees entering into employment or returning to employment after a bona fide period of non-employment with the Company. The Company has not made any grants under the 2015 Inducement Plan since December 31, 2015. Although the Company does not currently anticipate the issuance of additional grants under the 2015 Inducement Plan, as of March 31, 2020, 306,500 shares remain available for grant under that plan, as well as any shares underlying outstanding stock options that may become available for grant pursuant to the plan's terms. It is therefore possible that the Company may, based on the business and recruiting needs of the Company, issue additional stock options under the 2015 Inducement Plan.

In June 2017, the Company's Board of Directors adopted the Paratek Pharmaceuticals, Inc. 2017 Inducement Plan, or the 2017 Inducement Plan, in accordance with Nasdaq Rule 5635(c)(4), reserving 550,000 shares of common stock solely for the grant of inducement stock options and RSU awards to employees entering into employment or returning to employment after a bona fide period of non-employment with the Company. In October 2018, the Company's Board of Directors approved the reserve of an additional 500,000 shares for the 2017 Inducement Plan, for a total of 1,050,000 shares reserved for issuance under it. During the three months ended March 31, 2020, the Company's Board of Directors granted 21,100 stock options and 17,600 RSUs to employees of the Company under the 2017 Inducement Plan. The stock option awards are subject to time-based vesting over a period of one to four years. The RSU awards are generally subject to time-based vesting, with 100% of the shares of common stock subject to the RSU award vesting three years from the grant date. As of March 31, 2020, 379,666 shares remain available for grant under the 2017 Inducement Plan, as well as any shares underlying awards that may become available for grant pursuant to the plan's terms.

Stock Options

A summary of stock option activity for the three months ended March 31, 2020 is as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2019	3,236,073	$ 15.54	6.30	$ 90
Granted	82,400			
Cancelled or forfeited	(8,573)			
Outstanding at March 31, 2020	3,309,900	$ 15.25	5.87	$ 1
Exercisable at March 31, 2020	2,877,454	$ 16.05	5.45	$ —

In April 2020, certain executives voluntarily forfeited 1,073,891 outstanding stock options with exercise prices significantly above the current trading price of the Company's common stock in order to make additional shares available for future grants to Company employees subsequent to the quarter ended March 31, 2020 under the Company's 2014 Equity Incentive Plan, 2015 Equity Incentive Plan, and the 2017 Inducement Plan. The Company recognizes the effect of forfeitures as stock-based compensation expense as they occur.

Restricted Stock Units

A summary of RSU activity for the three months ended March 31, 2020 is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
Unvested balance at December 31, 2019	2,305,408	$ 7.66
Granted	2,513,550	3.52
Released	(252,670)	8.42
Forfeited	(121,834)	9.50
Unvested balance at March 31, 2020	4,444,454	$ 5.22

Total unrecognized stock-based compensation expense for all stock-based awards was $14.0 million as of March 31, 2020. This amount will be recognized over a weighted-average period of 1.78 years.

2009 Employee Stock Purchase Plan

On June 3, 2009, at the annual meeting of stockholders, the stockholders of the Company approved the 2009 Employee Stock Purchase Plan, or the 2009 ESPP. The Company's 2009 ESPP is designed to allow eligible employees of the Company to purchase shares of common stock through periodic payroll deductions and during specified offering periods under the plan. The price of common stock purchased under the 2009 ESPP is equal to 85% of the lower of the fair market value of the common stock on the commencement date of each offering period or the specified purchase date. As of March 31, 2020, 36,539 shares were available for issuance under the 2009 ESPP. Since the Merger, the Company has not made the 2009 ESPP available to employees.

2018 Employee Stock Purchase Plan

The Company's Board of Directors adopted, and in June 2018 Company's stockholders approved, the Paratek Pharmaceuticals, Inc. 2018 Employee Stock Purchase Plan, or the 2018 ESPP. The 2018 ESPP was amended in October 2018 to change the commencement dates of the offering periods. The maximum aggregate number of shares of the Company's common stock that may be purchased under the 2018 ESPP is 943,294 shares, or the ESPP Share Pool, subject to adjustment as provided for in the 2018 ESPP. The 2018 ESPP allows eligible employees to purchase shares during certain offering periods, which will be six -month periods commencing June 1 and ending November 30 and commencing December 1 and ending May 31 of each year. The first offering under the 2018 ESPP occurred on December 1, 2018. As of March 31, 2020, 761,648 shares remain available for issuance. During the three months ended March 31, 2020, the Company recognized an insignificant amount in related stock-based compensation expense.

Revenue Performance Incentive Plan

On October 4, 2018, the Company adopted the Revenue Performance Incentive Plan, or the Plan, to grant performance-based cash incentive awards to key employees and consultants of the Company. The Plan provides for an incentive pool of up to $50.0 million, plus accrued interest during the period between the awards' vesting date and payment dates. Each participant will be allocated a percentage of the incentive pool.

The incentive pool will be divided into two equal tranches with the first tranche vesting upon the Company's achievement of cumulative net product revenues over $300.0 million by December 31, 2025, or Tranche 1, and the second tranche vesting upon the Company's achievement of cumulative product revenues over $600.0 million by December 31, 2026, or Tranche 2. Participants will vest annually in each tranche of their awards in four equal installments on December 31, 2019, December 31, 2020, December 31, 2021, and December 31, 2022, subject to their continued employment with the Company through the applicable vesting date. If a participant's employment terminates prior to December 31, 2022 due to death or disability, the participant will automatically vest in an additional 25% of each tranche of his or her award. Upon the achievement of a Tranche 1 or Tranche 2 milestone (but not a deemed achievement in connection with a change of control), each participant who has remained in continuous employment with the Company through December 31, 2022 will be 100% vested in the applicable tranche. In the event of a change of control of the Company prior to December 31, 2026, participants whose employment has terminated prior to such date will be eligible for payouts under the Plan based on the then-vested portion of their awards, and participants who have remained employed through the change of control will be deemed to have time vested in full in each tranche of their awards.

Upon the achievement of a Tranche 1 or Tranche 2 milestone (but not a deemed achievement in connection with a change of control), each participant's payout in respect of the applicable tranche of his or her award will equal (a) the participant's then-vested percentage, multiplied by (b) $25 million, multiplied by (c) the participant's individual percentage allocation of the incentive pool.

If a change of control occurs prior to December 31, 2026, and the Tranche 1 milestone was not achieved prior to the change of control, the Tranche 1 milestone will be deemed to be achieved at a percentage equal to the greater of (1) 50% and (2) the cumulative product revenues as of the change of control, divided by $300.0 million. If a change of control occurs prior to December 31, 2026, and the Tranche 2 milestone was not achieved prior to the change of control, the Tranche 2 milestone will be deemed to be achieved at a percentage equal to the greater of (1) 30% and (2) the cumulative product revenues as of the change of control, divided by $600.0 million. A participant's payout in respect of each tranche of his or her award in a change of control will equal (1) the participant's then-vested percentage of such tranche, multiplied by (2) the percentage of that tranche's milestone that has been achieved or is deemed to have been achieved, multiplied by (3) $25.0 million, multiplied by (4) the participant's individual percentage allocation of the incentive pool.

Amounts that become payable upon achievement of the Tranche 1 milestone will be paid in a lump-sum in the first quarter of 2026 and amounts that become payable upon achievement of the Tranche 2 milestone will be paid in a lump-sum in the first quarter of 2027. In the event of a change of control, any portion of the incentive pool that is earned, but unpaid, or deemed earned in connection with the change of control will be paid at the time of the change of control.

If a change of control occurs prior to the achievement of either or both of the Tranche 1 and Tranche 2 milestones, the awards will remain outstanding and the remaining unpaid portion of the incentive pool applicable to the Tranche 1 or Tranche 2 milestone, as applicable, will be paid following the achievement of either such milestone at the time or times the bonuses would otherwise be paid out. Any successor in interest to the Company upon or following a change of control will be required to assume all obligations under the Plan.

Awards may be paid out in cash or in a combination of cash and registered securities of equal value (based on the Company's 20-day trailing average closing common stock price), with the portion paid in registered securities not to exceed 50% of the aggregate payment amount with respect to each tranche; provided, however, that any amounts payable with respect to an award in connection with a change in control will be paid in cash.

The Company will recognize the compensation cost over the requisite service period, to the extent achievement of the performance condition is deemed probable relative to targeted performance. The performance condition is not yet deemed probable; as such, no amounts were accrued under the Plan during the three months ended March 31, 2020.

13. Long-Term Debt

Hercules Loan Agreement

On June 27, 2019, the Company entered into an Amended and Restated Loan and Security Agreement, or the Loan Agreement, with Hercules Technology III, L.P., certain other lenders, together, the Lenders, and Hercules Capital, Inc. (as agent), under which the Company may borrow up to $100.0 million in multiple tranches, each, a Term Loan Tranche. The Loan Agreement amends and restates in its entirety the Company's prior Loan and Security Agreement with the Lenders dated as of September 30, 2015 to, among other things, provide for an extension of the scheduled maturity date of the $60.0 million Term Loan Tranche, or the First Tranche, from September 1, 2021 to September 1, 2023, upon certain events set forth in the Loan Agreement, and an extension of the scheduled maturity date of the $10.0 million Term Loan Tranche, or the Second Tranche, and additional Term Loan Tranches (if any), from August 1, 2022 to August 1, 2024, upon certain events set forth in the Loan Agreement. The Loan Agreement also provides for an additional $10.0 million of additional Term Loan Tranches (up to a total of $30.0 million of additional Term Loan Tranches) that may be available to the Company, subject to approval by Hercules, in its sole discretion, whether to provide such tranches. As such there can be no assurance as to whether or not the additional Term Loan Tranches shall be funded.

The interest rate with respect to the First Tranche is a floating per annum rate equal to the greater of (i) 8.50% plus the prime rate as reported from time to time in The Wall Street Journal minus 5.75%, and (ii) 8.50%. The interest rate with respect to the Second Tranche is, and the interest rate with respect to additional Term Loan Tranches (if any) will be, a floating per annum rate equal to the greater of (i) 7.85% plus the prime rate as reported from time to time in The Wall Street Journal minus 5.75%, and (ii) 7.85%. An end of term charge equal to 4.5% with respect to $50.0 million of the First Tranche and equal to 2.25% with respect to the remaining $10.0 million of the First Tranche of the issued principal balance of the term loans is payable in September of 2020, and an end of term charge equal to 6.95% of the Second Tranche, and the Additional Term Loan Tranches (if any), of the issued principal balance of the term loans is payable at maturity, including in the event of any prepayment, and is being accrued as interest expense over the term of the term loans using the effective interest method. Payments under the Loan Agreement with respect to the First Tranche are interest only until January 1, 2021, followed by equal monthly payments of principal and interest through the scheduled maturity date. Payments under the Loan Agreement with respect to the Second Tranche are, and with respect to additional Term Loan Tranches (if any) will be, interest only until January 1, 2021 (which can be extended to May 1, 2021 or September 1, 2021, upon certain events set forth in the Loan Agreement), followed by equal monthly payments of principal and interest through the scheduled maturity date. The Company's obligations under the Loan Agreement are secured by a security interest in substantially all of its and Paratek Pharma, LLC's assets, other than intellectual property.

Under the Amended and Restated Loan Agreement, prepayment fees equaling 1.0% to 2.5% will apply to principal amounts prepaid prior to dates between September 1, 2020 and January 1, 2021, varying depending on the applicable tranche.

The Loan Agreement includes customary affirmative and restrictive covenants, including a liquidity covenant and a covenant against suffering a "change of control," and also includes customary events of default, including payment defaults, breaches of covenants following any applicable cure period, a material impairment in the perfection or priority of Lenders' security interest or in the value of the collateral, cross acceleration to the debt and certain events relating to bankruptcy or insolvency. Upon the occurrence of an event of default, a default interest rate of an additional 5% may be applied to the outstanding loan balances, and the Lenders may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Loan Agreement.

Borrowings under the Hercules Loan Agreement are collateralized by substantially all of the assets of the Company.

Upon an Event of Default, an additional 5.0% interest would be applied, and Hercules could, at its option, accelerate and demand payment of all or any part of the term loans together with the prepayment and end of term charges. An Event of Default is defined in the Hercules Loan Agreement as (i) failure to make required payments; (ii) failure to adhere to financial, operating and reporting loan covenants; (iii) an event or development occurs that would be reasonably expected to have a material adverse effect; (iv) false representations in the Hercules Loan Agreement; (v) insolvency, as described in the Hercules Loan Agreement; (vi) levy or attachments on any of the Company's assets; and (vii) default of any other agreement or subordinated debt greater than $1.0 million. In the event of insolvency, this acceleration and declaration would be automatic. In addition, in connection with the Hercules Loan Agreement, the Company agreed to provide Hercules with a contingent security interest in the Company's bank accounts. The Company's control of its bank accounts is not adversely affected unless Hercules elects to obtain unilateral control of the Company's bank accounts by declaring that an Event of Default has occurred. The principal of the term loans, which is not due within 12 months of March 31, 2020, has been classified as long-term debt.

The Company recognized interest expense of $1.7 million on the Hercules Loan Agreement for the three months ended March 31, 2020.

The following table summarizes the impact of the Hercules Loan Agreement on the Company's consolidated balance sheets at March 31, 2020 and December 31, 2019 (in thousands):

	March 31, 2020	December 31, 2019
Gross proceeds	$ 70,000	$ 70,000
Unamortized debt issuance costs	(299)	(361)
Carrying value	$ 69,701	$ 69,639

Debt issuance costs are presented on the consolidated balance sheet as a direct deduction from the related debt liability rather than capitalized as an asset in accordance with ASU No. 2015-03, *Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs*.

Future principal payments, which exclude the end of term charge, in connection with the Hercules Loan Agreement as of March 31, 2020 are as follows (in thousands):

Fiscal Year	
2020	$ —
2021	65,835
2022	4,165
2023	—
2024 and thereafter	—
Total	$ 70,000

Convertible Senior Subordinated Notes

On April 18, 2018, the Company entered into a Purchase Agreement, or the Purchase Agreement, with several initial purchasers, or the Initial Purchasers, for whom Merrill Lynch, Pierce, Fenner & Smith Incorporated and Leerink Partners LLC acted as representatives, relating to the sale of $135.0 million aggregate principal amount of 4.75% Convertible Senior Subordinated Notes due 2024, or the Notes, to the Initial Purchasers. The Company also granted the Initial Purchasers an option to purchase up to an additional $25.0 million aggregate principal amount of Notes, which was exercised in full on April 20, 2018.

The Purchase Agreement includes customary representations, warranties and covenants. Under the terms of the Purchase Agreement, the Company agreed to indemnify the Initial Purchasers against certain liabilities.

In addition, J. Wood Capital Advisors LLC, the Company's financial advisor, purchased $5.0 million aggregate principal amount of Notes in a separate, concurrent private placement on the same terms as other investors.

The Notes were issued by the Company on April 23, 2018, pursuant to an Indenture, dated as of such date, or the Indenture, between the Company and U.S. Bank National Association, as trustee, or the Trustee. The Notes bear cash interest at the annual rate of 4.75%, payable on November 1 and May 1 of each year, beginning on November 1, 2018, and mature on May 1, 2024 unless earlier repurchased, redeemed or converted. The Company will settle conversions of the Notes through delivery of shares of common stock of the Company, in accordance with the terms of the Indenture. The initial conversion rate for the Notes is 62.8931 shares of common stock (subject to adjustment as provided for in the Indenture) per $1,000 principal amount of the Notes, which is equal to an initial conversion price of approximately $15.90 per share, representing a conversion premium of approximately 20% above the closing price of the common stock of $13.25 per share on April 18, 2018.

Holders of the Notes may convert all or any portion of their Notes, in multiples of $1,000 principal amount, at their option at any time prior to the close of business on the second scheduled trading day immediately preceding the stated maturity date.

The Company may not redeem the Notes prior to May 6, 2021. The Company may redeem for cash all or part of the Notes, at its option, on or after May 6, 2021 if the last reported sale price of the Company's common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

If the Company experiences a fundamental change, as described in the Indenture, prior to the maturity date of the Notes, holders of the Notes will, subject to specified conditions, have the right, at their option, to require the Company to repurchase for cash all or a portion of their Notes at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest, if any, to, but not including, the fundamental change repurchase date. In addition, following certain corporate events that occur prior to the maturity date of the Notes and following a notice of redemption of the Notes, the Company will increase the conversion rate for a holder who elects to convert its Notes in connection with such corporate event or redemption.

The Indenture provides for customary events of default. In the case of an event of default with respect to the Notes arising from specified events of bankruptcy or insolvency, all outstanding Notes will become due and payable immediately without further action or notice. If any other event of default with respect to the Notes under the Indenture occurs or is continuing, the Trustee or holders of at least 25% in aggregate principal amount of the then outstanding Notes may declare the principal amount of the Notes to be immediately due and payable.

After deducting costs incurred of $6.0 million, the Company raised net proceeds from the issuance of long-term convertible debt of $159.0 million in April 2018. All costs were deferred and are being amortized over the life of the Notes at an effective interest rate of 5.47% and recorded as additional interest expense.

The Company has evaluated the Indenture for derivatives pursuant to ASC 815, *Derivatives and Hedging*, or ASC 815, and identified an embedded derivative that requires bifurcation as the feature is not clearly and closely related to the host instrument. The embedded derivative is a default provision, which could require additional interest payments. The Company determined in the prior year that the fair value of this embedded derivative was nominal.

The Company evaluated the conversion feature and determined it was not within the scope of ASC 815 and therefore is not required to be accounted for separately. The Company concluded that the embedded conversion option is not subject to separate accounting pursuant to either the cash conversion guidance or the beneficial conversion feature guidance. Under the general conversion guidance in ASC 470, *Debt*, all of the proceeds received from the Notes was recorded as a liability on the condensed consolidated balance sheet.

The following table summarizes how the issuance of the Notes is reflected in the Company's consolidated balance sheets at March 31, 2020 and December 31, 2019:

	March 31, 2020	December 31, 2019
Gross proceeds	$ 165,000	$ 165,000
Unamortized debt issuance costs	(4,298)	(4,531)
Carrying value	$ 160,702	$ 160,469

The Company recognized coupon interest expense of $2.0 million and amortization expense on the debt issuance costs of $0.2 million on the Notes for the three months ended March 31, 2020.

Royalty-Backed Loan Agreement

On February 25, 2019, the Company, through its wholly-owned subsidiary Paratek Royalty Corporation, or the Subsidiary, entered into a royalty-backed loan agreement, or the Royalty-Backed Loan Agreement, with Healthcare Royalty Partners III, L.P., or HCRP. Pursuant to the terms of the Royalty-Backed Loan Agreement, upon the satisfaction of the conditions precedent set forth therein, the Subsidiary borrowed a $32.5 million loan, which was secured by, and will be repaid based upon, royalties from the Almirall Collaboration Agreement. On May 1, 2019, the Company received $27.8 million, net of $0.5 million lender discount, $0.2 million in lender expenses incurred, and $4.0 million that was deposited into an interest reserve account. The Company also paid $1.2 million in other lender fees related to the Royalty-Backed Loan Agreement. During the three months ended March 31, 2020, the Company paid $1.0 million to HCRP based upon royalties earned from the Almirall Collaboration Agreement and outstanding interest payments due to HCRP.

Under the Royalty-Backed Loan Agreement, the outstanding principal balance will bear interest at an annual rate of 12.0%. Payments of interest under the Royalty-Backed Loan Agreement are made quarterly out of the Almirall Collaboration Agreement royalty payments received since the immediately preceding payment date. On each interest payment date, any royalty payments in excess of accrued interest on the loan will be used to repay the principal of the loan until the balance is fully repaid. In addition, the Subsidiary made up-front payments to HCRP of (i) a 1.5% fee and (ii) up to $300,000 for HCRP's expenses. The Royalty-Backed Loan Agreement matures on May 1, 2029, at which time, if not earlier repaid in full, the outstanding principal amount of the loan, together with any accrued and unpaid interest, and all other obligations then outstanding, shall be due and payable in cash. The Company has entered into a Pledge and Security Agreement in favor of HCRP, pursuant to which the Subsidiary's obligations under the Loan Agreement are secured by a pledge of all of the Company's holdings of the Subsidiary's capital stock.

The Royalty-Backed Loan Agreement contains certain customary affirmative covenants, including those relating to: use of proceeds; maintenance of books and records; financial reporting and notification; compliance with laws; and protection of Company intellectual property. The Royalty-Backed Loan Agreement also contains certain customary negative covenants, barring the Subsidiary from: certain fundamental transactions; issuing dividends and distributions; incurring additional indebtedness outside of the ordinary course of business; engaging in any business activity other than related to the Almirall Collaboration Agreement; and permitting any additional liens on the collateral provided to HCRP under the Royalty-Backed Loan Agreement.

The Royalty-Backed Loan Agreement contains customary defined events of default, upon which any outstanding principal and unpaid interest shall be immediately due and payable. These include: failure to pay any principal or interest when due; any uncured breach of a representation, warranty or covenant; any uncured failure to perform or observe covenants; any uncured cross default under a material contract; any uncured breach of the Company's representations, warranties or covenants under its Contribution and Servicing Agreement with the Subsidiary; any termination of the Almirall Collaboration Agreement; and certain bankruptcy or insolvency events.

The Company recognized interest expense of $1.0 million on the Royalty-Backed Loan for the three months ended March 31, 2020.

The following table summarizes the impact of the Royalty-Backed Loan Agreement on the Company's consolidated balance sheets at March 31, 2020 and December 31, 2019 (in thousands):

	March 31, 2020	December 31, 2019
Gross proceeds	$ 32,500	$ 32,500
Unamortized debt issuance costs	(1,853)	(1,880)
Carrying value	$ 30,647	$ 30,620

The short-term portion of long-term debt on the Company's consolidated balance sheet at March 31, 2020 includes the carrying value of payments due under the Hercules Loan Agreement within 12 months of March 31, 2020. Long-term debt on the Company's consolidated balance sheets at March 31, 2020 and December 31, 2019 includes the carrying value of the Hercules Loan Agreement, the Notes and the Royalty-Backed Loan Agreement.

14. Leases

Operating Leases

The Company leases its Boston, Massachusetts and King of Prussia, Pennsylvania office spaces under non-cancelable operating leases expiring in 2021 and 2024, respectively.

The Company entered into the original King of Prussia and Boston leases in January 2015 and April 2015, respectively. The lease terms under the original agreements were for six and four years, respectively. Each agreement had one renewal option for an extended term, which are not included in the measurement of these leases as these options are not reasonably certain to be exercised. The King of Prussia and Boston lease terms under the original agreements began in June 2015 and July 2015, respectively.

The Company executed an amended lease agreement on its Boston office space in July 2016. The amended lease agreement added 4,153 rentable square feet of office space and extended the original lease term by two years. In accordance with the amended lease agreement, the Company paid a security deposit of $0.1 million. Subsequent to the amended lease agreement, the Company records monthly lease expense of approximately $49,000 for the Boston office space. In applying the transition guidance under ASU No. 2016-02, *Leases*, or ASC 842, the Company retained the classification of this lease to be operating and recorded a lease liability and a right-of-use asset on the ASC 842 effective date.

The Company executed an amended lease agreement on its King of Prussia office space in October 2016. The amended lease agreement is for 19,708 rentable square feet of office space and the Company took control of this office space during the first quarter of 2017. The amended lease agreement contains rent escalation and a partial rent abatement period, which is accounted for as rent expense under the straight-line method. In applying the ASC 842 transition guidance, the Company retained the classification of this lease to be operating and recorded a lease liability and a right-of-use asset on the ASC 842 effective date.

The following table contains a summary of the lease costs recognized under ASC 842 and other information pertaining to the Company's operating leases for the three months ended March 31, 2020:

	For the Three Months Ended March 31, 2020
Lease cost (in thousands)	
Operating lease cost	$ 255
Variable lease cost	36
Total lease cost	$ 291
Cash paid for amounts included in the measurement of lease liabilities:	$ 292
Other information	
Weighted average remaining lease term (in years)	3.4
Weighted average discount rate	8.75%

Future minimum operating lease obligations under non-cancelable operating leases with initial terms of more than one-year as of March 31, 2020, are as follows:

Maturity of lease liabilities (in thousands)	As of March 31, 2020
2020	$ 885
2021	964
2022	508
2023	518
2024	396
Total lease payments	$ 3,271
Less: imputed interest	(449)
Total operating lease liabilities	$ 2,822

The total operating liability is presented on the Company's condensed consolidated balance sheet based on maturity dates. $1.0 million of the total operating liabilities is classified under "other current liabilities" for the portion due within twelve months, and $1.8 million is classified under "long-term lease liability".

The Company is party to a manufacturing and services agreement for which space within the manufacturing facility will be leased. This lease has not yet commenced as of the reporting date and is not included in the maturity table above.

15. Income Taxes

The Company recorded no provision for income taxes for the three months ended March 31, 2020 and March 31, 2019.

Deferred tax assets and deferred tax liabilities are recognized based on temporary differences between the financial reporting and tax bases of assets and liabilities using statutory rates. Management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards and research and development credits. Under the applicable accounting standards, management has considered the Company's history of losses and concluded that it is more likely than not that the Company will not recognize the benefits of federal and state deferred tax assets. Accordingly, a full valuation allowance has been established against the Company's otherwise recognizable net deferred tax assets.

16. Product Revenue

To date, the Company's only source of product revenue has been from NUZYRA product sales beginning in February 2019 when NUZYRA was launch in the U.S. The following table summarizes balances and activity in each of the product revenue allowance and reserve categories (in thousands):

	Chargebacks, discounts and fees	Government and other rebates	Returns	Patient assistance	Total
Balance at December 31, 2019	$ 299	$ 695	$ 369	$ 129	$ 1,492
Provision related to current period sales	652	951	66	64	1,733
Adjustment related to prior period sales	(18)	59	—	—	41
Credit or payments made during the period	(498)	(521)	—	(59)	(1,078)
Balance at March 31, 2020	$ 435	$ 1,184	$ 435	$ 134	$ 2,188

17. Commitments and Contingencies

In the ordinary course of business, the Company is from time to time involved in lawsuits, claims, investigations, proceedings, and threats of litigation relating to intellectual property, commercial arrangements, employment and other matters. While the outcome of these proceedings and claims cannot be predicted with certainty, as of March 31, 2020, the Company was not party to any legal or arbitration proceedings that may have, or have had in the recent past, significant effects on the Company's financial position. No governmental proceedings are pending or, to the Company's knowledge, contemplated against the Company. The Company is not a party to any material proceedings in which any director, member of executive management or affiliate of the Company is either a party adverse to the Company or the Company's subsidiaries or has a material interest adverse to the Company or the Company's subsidiaries.

18. Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by the Company as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on its financial position or results of operations upon adoption.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement*, or ASU 2018-13. This standard modifies certain disclosure requirements on fair value measurements. The Company adopted the standard on January 1, 2020. The adoption of ASU 2018-13 did not have a material impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, *Simplifying the Test for Goodwill Impairment*, or ASU 2017-04. The amendments in ASU 2017-04 eliminate the current two-step approach used to test goodwill for impairment and require an entity to apply a one-step quantitative test and record the amount of goodwill impairment as the excess of a reporting unit's carrying amount over its fair value, not to exceed the total amount of goodwill allocated to the reporting unit. ASU 2017-04 is effective for fiscal years and interim periods beginning after December 15, 2019 (upon the first goodwill impairment test performed during that fiscal year). Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. A reporting entity must apply the amendments in ASU 2017-04 using a prospective approach. The Company adopted this guidance effective January 1, 2020. The adoption of ASU 2017-04 did not have a material impact on the Company's consolidated financial position or results of operations.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, or ASU 2016-13. The FASB subsequently issued amendments to ASU 2016-13, which have the same effective date and transition date of January 1, 2023. These standards require that credit losses be reported using an expected losses model rather than the incurred losses model that is currently used, and establishes additional disclosures related to credit risks. For available-for-sale debt securities with unrealized losses, these standards now require allowances to be recorded instead of reducing the amortized cost of the investment. These standards limit the amount of credit losses to be recognized for available-for-sale debt securities to the amount by which carrying value exceeds fair value and requires the reversal of previously recognized credit losses if fair value increases. Based on the composition of our investment portfolio, accounts receivable and other financial assets, current market conditions and historical credit loss activity, the adoption of these standards is not expected to have a material effect on the Company's consolidated balance sheet, consolidated statements of operation and comprehensive loss and related disclosures.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our unaudited condensed consolidated financial statements and related notes included in Part I, Item 1 of this Quarterly Report on Form 10-Q. All references to "Paratek," "we," "us," "our" or the "Company" in this Quarterly Report on Form 10-Q mean Paratek Pharmaceuticals, Inc. and our subsidiaries.

This discussion contains certain forward-looking statements that involve risks and uncertainties. We make such forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. Forward-looking statements are identified by words such as "believe," "will," "may," "estimate," "continue," "anticipate," "intend," "should," "plan," "expect," "predict," "could," "potential," "potentially" or the negative of these terms or similar expressions. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition, or state other "forward- looking" information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those anticipated in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2019, as filed with the SEC on March 10, 2020, or the 2019 Form 10-K, and this Quarterly Report on Form 10-Q for the quarter ended March 31, 2020. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. These statements, like all statements in this report, speak only as of their date, and except as required by law, we undertake no obligation to update or revise these statements in light of future developments. We caution investors that our business and financial performance are subject to substantial risks and uncertainties.

Company Overview

We are a commercial-stage biopharmaceutical company focused on the development and commercialization of novel life-saving therapies for life-threatening diseases or other public health threats for civilian, government and military use. We have used our expertise in biology and tetracycline chemistry to create chemically diverse and biologically distinct small molecules derived from the minocycline core structure. Our United States, or U.S., Food and Drug Administration, or FDA, approved commercial product, NUZYRA® (omadacycline) is a once-daily oral and intravenous antibiotic for the treatment of adult patients with community-acquired bacterial pneumonia, or CABP, and acute skin and skin structure infections, or ABSSSI, caused by susceptible pathogens. SEYSARA® (sarecycline) is an FDA-approved product with respect to which we have exclusively licensed in the U.S. and the People's Republic of China, Hong Kong and Macau, or the greater China region, certain rights to Almirall, LLC, or Almirall. SEYSARA is currently being marketed by Almirall in the U.S. as a new once-daily oral therapy for the treatment of moderate to severe acne vulgaris. With respect to our technology as it relates to sarecycline, we retain development and commercialization rights in all countries other than the U.S. and the greater China region, and in February 2020, we exclusively licensed from Almirall certain technology owned or in-licensed by Almirall or its affiliates that is necessary or useful to develop or commercialize sarecycline outside of the U.S. Almirall plans to develop sarecycline for acne in China, with a submission to the China National Medical Products Administration, or NMPA, expected in 2023.

To date, we have devoted a substantial amount of our resources to research and development efforts, including conducting clinical trials for omadacycline, protecting our intellectual property and providing selling, general and administrative support for these operations. We began generating revenue from product sales in February 2019; as such, we have historically financed our operations primarily through sales of our common stock, debt financings, strategic collaborations, and grant funding.

We have incurred significant losses since our inception in 1996. Our accumulated deficit at March 31, 2020 was $738.9 million and our net loss for the quarter ended March 31, 2020 was $27.6 million. A substantial amount of our net losses resulted from costs incurred in connection with our research and development programs and selling, general and administrative costs associated with our operations. The net losses and negative operating cash flows incurred to date, together with expected future losses, have had, and likely will continue to have, an adverse effect on our stockholders' equity (deficit) and working capital. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate offsetting revenue, if any. We expect to continue to incur significant expenses and operating losses for the next several years.

While our contract with the Biomedical Advanced Research and Development Authority, or BARDA, a division of the U.S. Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response, herein referred to as the BARDA contract, is expected to significantly strengthen our cash position, unless we can generate a sufficient amount of revenue from our commercial products, we may need to raise additional capital in order to support and accelerate the commercialization of omadacycline and to advance the development of our other indications for omadacycline, such as nontuberculous mycobacteria, or NTM, or other product candidates. If we cannot generate a sufficient amount of product or royalty revenue to finance our cash requirements, we expect to finance our future cash needs primarily through a combination of public or private equity offerings, debt or other structured financings, strategic collaborations and grant funding. We may be unable to raise capital when needed or on attractive terms, which would force us to delay, limit, reduce or terminate our development programs or commercialization efforts. We will need to generate significant revenue to achieve and sustain profitability, and we may never be able to do so.

Business Update Regarding COVID-19

The current COVID-19 pandemic has presented a substantial public health and economic challenge around the world and is affecting our employees, patients, communities and business operations, as well as the U.S. economy and financial markets. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning COVID-19, the actions taken to contain it or treat its impact and the economic impact on local, regional, national and international markets.

To date, we and our partners have been able to continue to supply our products to our patients worldwide and currently do not anticipate any interruptions in supply, for the foreseeable future. However, we are continuing to assess the potential impact of the COVID-19 pandemic on our business and operations, including our sales, expenses, supply chain and clinical trials.

Our office-based employees have been working from home since early March 2020 and we have suspended in-person interactions by our customer-facing personnel in healthcare settings. We are engaging with our customers remotely as we seek to continue to support healthcare professionals and patient care. We have and may continue to benefit in the near term from precautionary measures taken by our customers due to the COVID-19 pandemic, such as increasing their levels of stock in anticipation of any further interruptions from the pandemic, but over the longer term we may or may not see reduced demand as a result of advance sales or fewer patients visiting their healthcare provider to initiate, change or receive therapy.

Our third-party contract manufacturing partners continue to operate their manufacturing facilities at or near normal levels. While we currently do not anticipate any interruptions in our supply chain, it is possible that the COVID-19 pandemic and response efforts may have an impact in the future on our and/or our third-party suppliers and contract manufacturing partners' ability to manufacture our products or the products of our partners.

For additional information on the various risks posed by the COVID-19 pandemic, refer to Item 3. Quantitative and Qualitative Disclosures About Market Risk and Item 1A. Risk Factors included in this report.

Recent Financing Activities

On February 25, 2019, we, through our wholly-owned subsidiary Paratek Royalty Corporation, or the Subsidiary, entered into a royalty-backed loan agreement, or the Royalty-Backed Loan Agreement, with Healthcare Royalty Partners III, L.P. Pursuant to the terms of the Royalty-Backed Loan Agreement, upon the satisfaction of the conditions precedent set forth therein, we borrowed a $32.5 million loan, which was secured by, and will be repaid based upon, royalties from the Almirall Collaboration Agreement. On May 1, 2019, we received $27.8 million, net of $0.5 million lender discount, $0.2 million in lender expenses incurred, and $4.0 million that was deposited into an interest reserve account. We also paid $1.2 million in other lender fees related to the Royalty-Backed Loan Agreement.

On July 2, 2019, we entered into an At the Market Sales Agreement, or 2019 Sales Agreement, with Jefferies LLC, or Jefferies, and BTIG, LLC, or BTIG, under which we may offer and sell our common stock having aggregate sales proceeds of up to $50.0 million from time to time through Jefferies and BTIG as our sales agents. Sales of our common stock through Jefferies and BTIG, if any, will be made by any method permitted by law deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act of 1933, as amended, including without limitation sales made directly on the Nasdaq Global Market or any other existing trading market for its common stock. Jefferies and BTIG will use commercially reasonable efforts to sell our common stock from time to time, based upon our instructions (including any price, time or size limits or other customary parameters or conditions we may impose). We will pay Jefferies and BTIG, as applicable, a commission of 3% of the gross sales proceeds of any common stock sold through Jefferies and BTIG under the 2019 Sales Agreement. We have also provided Jefferies and BTIG with customary indemnification rights. During the three months ended March 31, 2020, we sold 2,334,107 shares of our common stock pursuant to the 2019 Sales Agreement for $9.1 million in proceeds, after deducting commissions of $0.3 million. As of May 6, 2020, $9.3 million remains available for sale under the 2019 Sales Agreement.

Financial Operations Overview

Product Revenue, Net

Product revenue, net, is recognized when earned on sales of NUZYRA, which was approved by the FDA in October 2018 and launched in the U.S. in February 2019. NUZYRA is sold principally to a limited number of specialty distributors and specialty pharmacy providers in the U.S. These customers subsequently resell our product to health care providers or dispense the product to patients. In addition to distribution agreements with customers, we enter into arrangements with health care providers and payers that provide for government mandated and/or privately negotiated rebates, chargebacks and discounts with respect to the purchase of our product. Product revenue is recognized net of reserves for all variable consideration, including rebates, chargebacks, discounts and product returns.

Government Contract Service Revenue

Government contract service revenue is recognized when earned under our BARDA contract and represents the reimbursement by BARDA of costs incurred by us for work performed to develop NUZYRA for the treatment of pulmonary anthrax plus a small fixed administrative fee. Refer to Note 8, *Government, License and Collaboration Agreements* to the interim condensed consolidated financial statements for further discussion of the BARDA contract and related revenue recognition.

Collaboration and Royalty Revenue

Collaboration and royalty revenue represents revenue earned from the Almirall Collaboration Agreement, the Zai Collaboration Agreement, and the Tetraphase License Agreement. Refer to Note 8, *Government, License and Collaboration Agreements* to the interim condensed consolidated financial statements for further discussion of the collaboration agreements and the related revenue recognition.

Cost of Product Revenue

Cost of product revenue represents the cost of the product itself, labor and overhead, and any reserve for excess or obsolete inventory, as well as stability studies, inventory scrap and royalty expense.

Research and Development Expense

Research and development expenses consisted primarily of costs directly incurred by us for the development of our product candidates, which include:

- expenses incurred under agreements with clinical research organizations, or CROs, and investigative sites that conduct our clinical trials;
- the cost of acquiring and manufacturing preclinical and clinical study materials and developing manufacturing processes;
- direct employee-related expenses, including salaries, benefits, travel and stock-based compensation expense of our research and development personnel;
- allocated facilities, depreciation, and other expenses, which include rent and maintenance of facilities, insurance and other supplies; and
- costs associated with preclinical activities and regulatory compliance.

Research and development costs are expensed as incurred. Costs for certain development activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our vendors and our clinical sites.

We cannot determine with certainty the duration and completion costs of the current or future clinical trials of our product candidates or if, when, or to what extent we will generate revenues from the commercialization and sale of any of our products or product candidates for which we or any partner obtain regulatory approval, such as NUZYRA and SEYSARA. Aside from the FDA approval of NUZYRA and SEYSARA in the U.S., we or our partners may never succeed in achieving regulatory approval for any of our other product candidates. The duration, costs and timing of clinical trials and development of our product candidates depend on a variety of factors, including:

- the scope, rate of progress, and expense of our ongoing, as well as any additional, clinical trials and other research and development activities;
- future clinical trial results;
- potential changes in government regulation; and
- the timing and receipt of any regulatory approvals.

A change in the outcome of any of these variables with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the development of that therapeutic candidate. For example, if the FDA, or another regulatory authority, were to require us to conduct clinical trials beyond those that we currently anticipate will be required for the completion of the clinical development of product candidates, or if we experience significant delays in the enrollment in any clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development.

We manage certain activities, such as clinical trial operations, manufacture of clinical trial material, and preclinical animal toxicology studies, through third-party contract organizations. The only costs we track by each product candidate are external costs such as services provided to us by CROs, manufacturing of preclinical and clinical drug product, and other outsourced research and development expenses. We do not assign or allocate to individual development programs internal costs such as salaries and benefits, facilities costs, lab supplies and the costs of preclinical research and studies. Our external research and development expenses for omadacycline and other projects during the three months ended March 31, 2020 and 2019 are as follows:

	Three Months Ended March 31,	
(in thousands)	**2020**	**2019**
Omadacycline costs	$ 3,688	$ 6,477
Other research and development costs	2,701	4,915
Total	$ 6,389	$ 11,392

Selling, General and Administrative Expense

Selling, general and administrative expenses consist principally of compensation costs associated with our contract sales force, commercial support personnel, and medical affairs professionals, as well as personnel in executive and other administrative functions. Other selling, general and administrative expenses include marketing, trade, and other commercial costs and distribution fees necessary to support the launch of NUZYRA and professional fees for legal, consulting and accounting services.

Interest Expense

Interest expense represents interest incurred on the Hercules Loan Agreement, the Notes, and the Royalty-Backed Loan Agreement as well as the adjustment of our marketable securities to amortized cost.

Interest Income

Interest income represents interest earned on our money market funds and marketable securities.

Results of Operations

Comparison of the three months ended March 31, 2020 and 2019

(in thousands)	Three Months Ended March 31, 2020	2019	$ Change
Product revenue, net	$ 7,303	$ 1,347	$ 5,956
Government contract service revenue	337	—	337
Collaboration and royalty revenue	280	251	29
Net revenue	$ 7,920	$ 1,598	$ 6,322
Expenses:			
Cost of product revenue	1,471	206	1,265
Research and development	6,389	11,392	(5,003)
Selling, general and administrative	23,638	23,316	322
Total operating expenses	31,498	34,914	(3,416)
Loss from operations	(23,578)	(33,316)	9,738
Other income and expenses:			
Interest income	705	946	(241)
Interest expense	(4,826)	(3,226)	(1,600)
Other gains (losses), net	82	(14)	96
Net loss	$ (27,617)	$ (35,610)	$ 7,993

Product Revenue, Net

Net product revenue recognized on sales of NUZYRA in the U.S. was $7.3 million and $1.3 million for the three months ended March 31, 2020 and March 31, 2019, respectively. The increase in net product revenue is primarily the result of an increase in sales volume due to higher customer demand.

Government Contract Service Revenue

Government contract service revenue earned under our BARDA contract was $0.3 million during the three months ended March 31, 2020. No such government contract service revenue was earned during the three months ended March 31, 2019 as the BARDA contract was not executed until December 2019.

Collaboration and Royalty Revenue

Collaboration and royalty revenue was $0.3 million for the three months ended March 31, 2020 and March 31, 2019. Royalty revenue recognized for sales of SEYSARA in the U.S. was estimated using third party data and an approximation of discounts and allowances to calculate net product sales, to which the Company then applied the applicable royalty percentage specified in the Almirall Collaboration Agreement. Differences between actual and estimated royalty revenue will be adjusted in the period in which they become known, which is expected to be the following quarter.

Cost of Product Revenue

Cost of product revenue was $1.5 million for the three months ended March 31, 2020, compared to $0.2 million for the three months ended March 31, 2019. The $1.3 million increase is primarily the result of an increase in NUZYRA product sales, royalties owed on net sales of NUZYRA, and certain period costs. Based on our policy to expense costs associated with the manufacture of our products prior to regulatory approval, certain of the costs of NUZYRA units recognized as revenue during the three months ended March 31, 2020 and March 31, 2019 were expensed prior to FDA approval in October 2018, and therefore are not included in cost of product revenue during the period. We expect cost of product revenue to increase in relation to net product revenues as we deplete these inventories, which we anticipate will occur in 2020.

Research and Development Expense

Research and development expenses were $6.4 million for the three months ended March 31, 2020, compared to $11.4 million for the three months ended March 31, 2019. The $5.0 million decrease is primarily the result of lower clinical study costs associated with our Phase 2 UTI program completed in 2019 and other operational efficiencies.

We anticipate research and development expenses to be lower in future periods while stay-at-home orders and travel restrictions associated with the COVID-19 pandemic remain imposed. Once those restrictions begin to lift, we anticipate an increase in research and development expenses as we continue development of NUZYRA for the treatment of pulmonary anthrax, initiate work on our FDA post-marketing commitments, and begin onshoring of our manufacturing process, the majority of which is reimbursable under the BARDA contract. We will also incur additional spend as we continue exploring pathways for NTM indications.

Selling, General and Administrative Expense

Selling, general and administrative expenses were $23.6 million for the three months ended March 31, 2020, compared to $23.3 million for the three months ended March 31, 2019. The modest increase is primarily the result of personnel-related costs in support of the commercialization of NUZYRA, additional contract sales force costs, and higher trade and distribution fees, partially offset by lower sales and marketing costs due to COVID-19-related travel restrictions that prohibited in-person training events and sales meetings from taking place during the first quarter of 2020.

We anticipate selling, general and administrative expenses to be lower in future periods while stay-at-home orders and travel restrictions associated with the COVID-19 pandemic remain imposed. Once those restrictions begin to lift, we anticipate an increase in selling, general and administrative expenses in support of our commercial activities related to NUZYRA as well as the continued costs of operating as a public company. These increases will likely include costs related to the hiring of additional personnel, executing marketing and promotional programs, and engaging consultants, legal and other professional fees, and other expenses.

Other Income and Expenses

Interest expense for the three months ended March 31, 2020 represents interest incurred on the Notes of $2.2 million, the Hercules Loan Agreement of $1.7 million and the Royalty-Backed Loan Agreement of $1.0 million, partially offset by the net accretion of our marketable securities of $0.1 million. Interest income for the three months ended March 31, 2020 represents interest earned on our money market funds and marketable securities.

Interest expense for the three months ended March 31, 2019 represents interest incurred on the Notes of $2.2 million and the Hercules Loan Agreement of $1.7 million, partially offset by the net accretion of our marketable securities of $0.6 million. Interest income for the three months ended March 31, 2019 represents interest earned on our money market funds and marketable securities.

Liquidity and Capital Resources

On July 2, 2019, we entered into the 2019 Sales Agreement with Jefferies and BTIG, under which we may offer and sell our common stock having aggregate sales proceeds of up to $50.0 million from time to time through Jefferies and BTIG as our sales agents. Sales of our common stock through Jefferies and BTIG, if any, will be made by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act. For the three months ended March 31, 2020, we sold 2,344,107 shares of its common stock pursuant to the 2019 Sales Agreement for $9.1 million in proceeds, after deducting commissions of $0.3 million. As of May 6, 2020, $9.3 million remains available for sale under the 2019 Sales Agreement.

On February 25, 2019, we, through our wholly-owned subsidiary Paratek Royalty Corporation, entered into the Royalty-Backed Loan Agreement with Healthcare Royalty Partners III, L.P. Pursuant to the terms of the Royalty-Backed Loan Agreement, upon the satisfaction of the conditions precedent set forth therein, we borrowed a $32.5 million loan, which was secured by, and will be repaid based upon, royalties from the Almirall Collaboration Agreement. On May 1, 2019, we received $27.8 million, net of $0.5 million lender discount, $0.2 million in lender expenses incurred, and $4.0 million that was deposited into an interest reserve account. We also paid $1.2 million in other lender fees related to the Royalty-Backed Loan Agreement.

On April 18, 2018, we entered into a Purchase Agreement, or the Purchase Agreement, with several initial purchasers, or the Initial Purchasers for whom Merrill Lynch, Pierce, Fenner & Smith Incorporated and Leerink Partners LLC acted as representatives, relating to the sale of $135.0 million aggregate principal amount of 4.75% Convertible Senior Subordinated Notes due 2024, or the Notes. We also granted the Initial Purchasers an option to purchase up to an additional $25.0 million aggregate principal amount of Notes, which was exercised in full on April 20, 2018. In addition, J. Wood Capital Advisors LLC, our financial advisor, purchased $5.0 million aggregate principal amount of Notes in a separate, concurrent private placement on the same terms as other investors. After deducting costs incurred of $6.0 million, we received proceeds from the sale of the Notes of $159.0 million in April 2018.

On January 22, 2018, we completed an underwritten public offering of 3,205,128 shares of our common stock, resulting in total proceeds of $50.0 million. Offering expenses incurred were $0.2 million.

On December 1, 2017, we filed a registration statement on Form S-3 with the SEC, which was declared effective on December 8, 2017, to sell certain of our securities in an aggregate amount of up to $250.0 million. As of March 31, 2020, $213.2 million remains available on this shelf registration statement, with $13.2 million reserved for potential sales under the 2019 Sales Agreement.

We have used and we intend to continue to use the net proceeds from the above offerings of our common stock and the Notes, as well as from the Hercules Loan Agreement and the Royalty-Backed Loan Agreement, together with our existing capital resources and future NUZYRA product sales, government contract service revenue and royalty revenue, to fund our ongoing company operations, including clinical studies of omadacycline, NUZYRA commercial operations, and for working capital and other general corporate purposes. Refer to Note 13, *Long-Term Debt*, for further details on the Royalty-Backed Loan Agreement and the Hercules Loan Agreement.

As of March 31, 2020, we had cash, cash equivalents and marketable securities of $194.8 million.

The following table summarizes our cash provided by and used in operating, investing and financing activities:

	Three Months Ended March 31,	
(in thousands)	**2020**	**2019**
Net cash used in operating activities	$ (30,326)	$ (35,756)
Net cash provided by investing activities	$ 43,116	$ 69,989
Net cash provided by financing activities	$ 9,092	$ -

Operating Activities

Net cash used in operating activities was $30.3 million for the three months ended March 31, 2020, compared to $35.8 million for the three months ended March 31, 2019. Net cash used in operating activities has decreased period over period as a result of increased NUZYRA sales during 2020, offset by an increase in expenses for commercial activities in conjunction with the commercial launch of NUZYRA in February 2019. The change in net cash used in operating activities primarily consists of our net losses adjusted for non-cash items and changes in components of operating assets and liabilities as follows:

- for the quarter ended March 31, 2020, a net loss of $27.7 million adjusted for non-cash items including: stock-based compensation expense of $2.5 million and non-cash interest expense of $4.5 million, and a net decrease of $9.7 million due to changes in operating assets and liabilities. The significant items in the change in operating assets and liabilities include an increase in accounts payable and accrued expenses of $7.8 million and an increase in accounts receivable and other current assets of $2.1 million.
- for the quarter ended March 31, 2019, a net loss of $35.6 million adjusted for non-cash items including: $3.9 million in stock-based compensation expense and $2.7 million of non-cash interest expense and a net decrease of $6.3 million due to changes in operating assets and liability. The significant items in the change in operations assets and liabilities include increase in accounts payable and accrued expenses $1.8 million and an increase in accounts receivable and other current assets of $2.3 million and inventories of $1.4 million that were capitalized upon FDA approval in October 2018.

Investing Activities

Net cash provided by investing activities during the three months ended March 31, 2020 consists of $63.0 million in proceeds from maturities of marketable securities, partially offset by $19.6 million of investments in marketable securities (U.S. treasury securities) and $0.3 million in purchases of fixed assets.

Net cash provided by investing activities during the three months ended March 31, 2019 consists of $70.0 million in proceeds from maturities of marketable securities.

Financing Activities

Net cash provided by financing activities during the three months ended March 31, 2020 consists of $9.1 million in net proceeds raised through the sale of shares of our common stock through the 2019 Sales Agreement.

There was no change in net cash provided by financing activities during the three months ended March 31, 2019.

Future Funding Requirements

We began generating revenue from product sales when we launched NUZYRA in the U.S. in February 2019 and from royalties on sales of SEYSARA in the U.S. when Almirall launched the product in January 2019. Our future funding requirements will depend on our ability to generate revenue from sales of NUZYRA, and our partner, Almirall's, ability to generate revenues from sales of SEYSARA, with respect to which we are entitled to tiered royalties in the U.S. and flat royalties in the greater China region. We do not expect to generate any other revenue unless and until our partner, Zai, obtains regulatory approval of and commercializes one or more of our product candidates in the Zai territory. Zai submitted the first regulatory approval application for a licensed product in the People's Republic of China in December 2019, which was accepted by the China NMPA in February 2020. Additional resources will also be needed to support and accelerate the commercialization of NUZYRA, fund the development of omadacycline in other indications, including NTM, and to advance the development of potential other product candidates, and such funding may not be available on favorable terms or at all.

We expect to continue to incur significant expenditures and operating losses for the next several years as we:

- conduct additional clinical trials of omadacycline;
- seek regulatory approvals for additional indications for omadacycline, such as omadacycline for the treatment of NTM;
- continue to establish a sales, marketing and distribution infrastructure to commercialize NUZYRA and increase our manufacturing capacity and capabilities to satisfy demand;
- add personnel to support our planned commercialization efforts
- build product inventory; and
- service and pay down our debt.

Based upon our current operating plan, which includes estimated NUZYRA product sales and expense reimbursement of activities related to the BARDA contract, we anticipate that our existing cash, cash equivalents and marketable securities of $194.8 million as of March 31, 2020, will extend our cash runway through the end of 2023 with a pathway to cash flow break even. This anticipated pathway assumes we will be able to fund all company operating expenses, anticipated capital expenditures, and debt service, including repayment in full of the Hercules Loan Agreement under its existing terms.

We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our pharmaceutical products, especially given the constraints on in-person promotion of NUZYRA and lack of access to prescribers due to restrictions in access to hospitals during the COVID-19 pandemic, and the unknown extent to which we will maintain existing or enter into new collaborations with third parties to participate in the development and commercialization of our product and product candidates, we are unable to estimate with certainty the amounts of increased capital outlays and operating expenditures that we will require to fund our continuing operations, including for our clinical development programs and commercialization efforts for NUZYRA. Our future capital requirements will depend on many factors, including:

- the progress of clinical development of omadacycline in additional indications, including NTM;
- the costs and timing of commercialization activities for NUZYRA;
- product revenue received from commercial sales of NUZYRA;
- royalty revenue received from commercial sales of SEYSARA by Almirall;
- timing and amount of actual reimbursements and NUZYRA purchases under the BARDA contract;
- the ability of Zai to develop, manufacture and commercialize omadacycline in the Zai territory;
- the number and characteristics of other product candidates that we may pursue;
- the scope, progress, timing, cost and results of research, preclinical development and clinical trials;
- the costs, timing and outcome of seeking, obtaining, maintaining and expanding FDA and non-U.S. regulatory approvals;
- the costs associated with manufacturing and establishing sales, marketing and distribution capabilities;
- the number and characteristics of other product candidates that we may pursue;
- our ability to maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make in connection with the licensing, filing, defense and enforcement of any patents or other intellectual property rights;

- our need and ability to hire additional management, scientific, commercial, operations and medical personnel;
- the effect of competing products that may limit market penetration of our products;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems;
- resources required to develop and implement policies and processes to promote ongoing compliance with applicable healthcare laws and regulations;
- costs required to ensure that our and our partners' business arrangements with third parties comply with applicable healthcare laws and regulations;
- the economic and other terms, timing and success of our existing collaboration and licensing arrangements and any collaboration, licensing or other arrangements into which we may enter in the future, including the timing of receipt of any milestone or royalty payments under such arrangements; and
- the effect of the COVID-19 pandemic on the economy generally and on our business and operations specifically, including our sales of NUZYRA, sales by our collaboration partners with respect to which we are entitled to royalties, our third party manufacturers and supply chain, our research and development efforts, our clinical trials and our employees.

Until we can generate a sufficient amount of product and royalty revenue to finance our cash requirements, if ever, we expect to finance our future cash needs primarily through a combination of public or private equity offerings, debt or other structured financings, strategic collaborations and grant funding. We do not have any committed external sources of funds other than the rights under the BARDA contract and the rights to contingent milestone payments and/or royalties under the Almirall Collaboration Agreement, the Almirall China License, the Tetraphase License Agreement and the Zai Collaboration Agreement, which are terminable by Almirall, Tetraphase and Zai, respectively, upon prior written notice. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect stockholders' rights. Future debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Additionally, future equity or debt financing may be difficult to obtain on favorable terms, if at all, in light of increased volatility within the global financial markets as a result of the COVID-19 pandemic. If we raise additional funds through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, NUZYRA, sarecycline, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts or grant rights to develop and market NUZYRA, sarecycline or our other product candidates that we may otherwise prefer to develop and market ourselves.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with generally accepted accounting principles of the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, and expenses and the disclosure of contingent liabilities in our financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to, among other items, accounts receivable and related reserves, inventory and related reserves, goodwill, accrued sales allowances, net product revenue, government contract service revenue, collaboration and royalty revenue, leases, stock-based compensation arrangements, manufacturing and clinical accruals, useful lives for depreciation and amortization of long-lived assets and valuation allowances on deferred tax assets. Actual results could differ from those estimates.

Recent Accounting Pronouncements

Refer to Note 18, *Recent Accounting Pronouncements*, to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Off-Balance Sheet Arrangements

During the three months ended March 31, 2020 and the year ended December 31, 2019 we did not engage in any off-balance sheet financing activities, including the use of structured finance, special purpose entities or variable interest entities.

Contractual Obligations and Commitments

There have been no material changes in our contractual obligations and commitments as of March 31, 2020, as compared to those disclosed in *"Management's Discussion and Analysis of Financial Condition and Results of Operations— Contractual Obligations and Commitments"* in our 2019 Form 10-K.

Item 3. Quantitative and Qualitative Disclosures about Market Risks

Our cash, cash equivalents and investments balance as of March 31, 2020 consisted of cash and cash equivalents, and U.S. treasury securities. The goals of our investment policy are preservation of capital, fulfillment of liquidity needs and fiduciary control of cash and investments. We also seek to maximize income from our investments without assuming significant risk. Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of interest rates, including interest rate changes resulting from the impact of the COVID-19 pandemic, particularly because our investments are in short-term marketable securities. Due to the short-term duration of our investment portfolio and the low-risk profile of our investments, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our portfolio. We have the ability and intention to hold our investments, although they are available for immediate sale, until maturity and, therefore, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our investment portfolio.

We engage CROs and contract manufacturers on a global scale. We may be subject to fluctuations in foreign currency rates in connection with certain of these agreements. We currently do not hedge any such foreign currency exchange rate risk. Transactions denominated in currencies other than U.S. dollars are recorded based on exchange rates at the time such transactions arise and were less than 2.1% of total liabilities as of March 31, 2020.

Item 4. Controls and Procedures

Management's Evaluation of our Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, is (1) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and (2) accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

As of March 31, 2020, our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended). Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our principal executive officer and principal financial officer have concluded based upon the evaluation described above that, as of March 31, 2020, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

During the three months ended March 31, 2020, there have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15(d)-15(f) promulgated under the Securities Exchange Act of 1934, as amended, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II

Item 1. Legal Proceedings

Information in response to this Item is incorporated herein by reference from Note 17, *Commitments and Contingencies*, to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Item 1A. Risk Factors

There have been no material changes from the risk factors set forth in our 2019 Form 10-K other than as set forth below.

A pandemic, epidemic or outbreak of an infectious disease, such as COVID-19, has and may in the future adversely affect our business, results of operations and financial condition.

If a pandemic, epidemic or outbreak of an infectious disease occurs, our business may be adversely affected. Such events may result in a period of business and manufacturing disruption or in an inability to scale our production to meet demand in a cost-effective manner or at all, any of which could materially affect our financial condition and results of operations. For example, U.S residents and businesses in major urban centers have been hit especially hard by the global spread of COVID-19, which has resulted in disruptions to our business and in the future may result in additional disruptions. Examples of both include the following:

- *Health risks.* The health and wellbeing of our employees, including our sales representatives and clinical educators who visit our hospital customers, as well as employees of our suppliers, is at risk– if a critical threshold of our personnel, or the personnel of our suppliers, were to be diagnosed with COVID-19, placed in quarantine due to potential exposure to COVID-19, or need to care for family members diagnosed with COVID-19, it may result in significant business disruption.
- *Limitations on suppliers*. Some of our suppliers have been, and may in the future be, limited, and at times, precluded, from delivering to us products, materials, and components in the quantities needed on a timely basis, for a variety of reasons, including an evolving understanding of how international, federal, and/or state authorities define “essential business”, their inability to remain open due to lost business in other parts of their portfolios, or because of international, federal, and/or state prioritization orders requiring our suppliers to produce for governmental entities and/or other manufacturers before they produce for us. We presently maintain a supply chain structure that has allowed us to avoid material disruptions by the current COVID-19 outbreak; however, the future impact of this outbreak on our supply chain is highly uncertain and cannot be predicted. Our demand has increased at the same time as our supply chain has begun to face limitations, which has, and may in the future, result in a shortage of supply, increased costs of products, materials, and components and delays in the timely delivery thereof. The increased demand we are placing on our suppliers at the same time their sub-suppliers face limitations may in the future lead to our suppliers to seek to pass through expenses or otherwise increase pricing for products, materials, and components that we require to meet our production needs. If COVID-19 affects the producers of certain materials required by us for the production of NUZYRA, or by Almirall for the production of SEYSARA, our business and financial performance could be adversely affected.
- *Requirements for alternative sourcing.* We have had to develop alternate sources of supply for certain products, materials, and components as a result of the limitations, or complete inability, of some of some of our suppliers to meet our production needs. Although we have successfully been able to develop and validate these alternate sources of supply to date, doing so is time consuming, difficult, and costly, and if we need to develop and validate additional alternate sources of supply in the future for any reason, we may not be able to do so in a timeframe acceptable to meet customer demand.
- *Importation limitations*. Federal authorities may restrict our ability to import products into the U.S., which could negatively impact our business, operations, and relationships with our international distributors and customers in a significant and long-term way that we may not be able to rebuild for an extended period of time, or at all.
- *Shipping delays*. While we have priority shipping status with our carriers, we have experienced shipping delays throughout the U.S. and internationally during the COVID-19 outbreak, and as a result, there have been and may continue to be delays in our ability to ship our product to customers and distributors in a timely manner, potentially resulting in returned product, and we have and may continue to face extraordinary freight fees, including air freight fees and expedition fees for all modes of transportation.
- *Travel and access restrictions*. Travel restrictions have impeded our ability to qualify and retain new suppliers or audit our existing suppliers, which might have a negative impact on our quality management system and our product quality in the future. Travel restrictions and hospital limitations or denials of access for non-patients have impacted the ability of our direct sales team and clinical educators in the U.S. to access physicians and clinicians in order to educate them about NUZYRA.

- *Work from home limitations*. We have asked all employees to work from home, which could impact our ability to effectively plan, execute, communicate and maintain our corporate culture. The increase in working remotely could increase our cyber security risk, create data accessibility concerns, and make us more susceptible to communication disruptions.
- *Competition*. Our competitors may in the future secure significant purchase agreements from the federal government or various states before we are able to do so, or may be selected instead of us, precluding us from those commercial opportunities.
- *Debt covenants*. A significant disruption to our business resulting in an inability to build and ship product to customers for an extended period of time may impair our ability to maintain compliance with our debt covenants.
- *Capital markets volatility*. Equity and debt markets have experienced significant volatility since the spread of COVID-19 into the U.S. Should significant volatility continue or they experience declines due to the economic impact of COVID-19, we may not be able to raise capital at a reasonable valuation or at all.
- *Clinical studies.* We may be required to delay future clinical studies as a direct or indirect result of the COVID-19 pandemic.

Each of these factors could have a material adverse effect on our business and results of operations. The full extent to which COVID-19 impacts our business and results of operations will depend on future developments, which are highly uncertain and cannot be predicted, including new information about COVID-19 and the actions to treat or contain COVID-19 or to otherwise limit its impact, among others.

Disruptions at the FDA and other government agencies caused by funding shortages or global health concerns could hinder their ability to hire, retain or deploy key leadership and other personnel, or otherwise prevent new or modified products from being developed, cleared or approved, or commercialized in a timely manner or at all, which could negatively impact our business.

The ability of the FDA to review and clear or approve new products can be affected by a variety of factors, including government budget and funding levels, statutory, regulatory, and policy changes, the FDA's ability to hire and retain key personnel and accept the payment of user fees, and other events that may otherwise affect the FDA's ability to perform routine functions. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable. Disruptions at the FDA and other agencies may also slow the time necessary for marketing applications, clinical trial authorizations or other regulatory submissions related to drugs or dug candidates to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical employees and stop critical activities.

Separately, in response to the global pandemic of COVID-19, on March 10, 2020, the FDA announced its intention to postpone most foreign inspections of manufacturing facilities and products through April 2020, and subsequently, on March 18, 2020, the FDA announced its intention to temporarily postpone routine surveillance inspections of domestic manufacturing facilities. Regulatory authorities outside the U.S. may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our marketing applications, clinical trial authorizations, emergency use applications, or other regulatory submissions, which could negatively impact our business.

Item 6. Exhibits

EXHIBIT INDEX

Exhibit No.	Exhibit Description	Incorporated by Reference			
		Schedule/ Form	File Number	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation.	Form 8-K	001-36066	3.1	October 31, 2014
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation.	Form 8-K	001-36066	3.2	October 31, 2014
3.3	Certificate of Elimination of Series A Junior Participating Preferred Stock	Form 8-K	001-36066	3.1	July 24, 2015
3.4	Amended and Restated Bylaws.	Form 8-K	001-36066	3.1	April 16, 2015
4.1	Specimen Common Stock Certificate.	Form S-3	333-201458	4.2	January 12, 2015
4.2	Form of Warrant Agreement issued to Hercules Technology II, L.P. and Hercules Technology III, L.P.	Form 8-K	001-36066	4.1	October 5, 2015
4.3	Form of Warrant Agreement issued to Hercules Technology II, L.P. and Hercules Technology III, L.P.	Form 8-K	001-36066	4.1	December 13, 2016
4.4	Warrant Agreement, dated as of June 27, 2017 issued to Hercules Capital, Inc.	Form 8-K	001-36066	4.1	June 29, 2017
4.5	Warrant Agreement, dated as of August 1, 2018 issued to Hercules Capital, Inc.	Form 10-Q	001-36066	4.5	August 2, 2018
4.6	Warrant, dated as of April 7, 2014 issued to HBM Healthcare Investments (Cayman) Ltd.	Form 10-K	001-36066	10.22	April 2, 2015
4.7	Warrant Agreement, dated as of August 1, 2018 issued to Hercules Capital, Inc.	Form 10-Q	001-36066	10.23	April 2, 2015
4.8	Warrant Agreement, dated as of August 1, 2018 issued to Hercules Capital, Inc.	Form 10-Q	001-36066	10.24	April 2, 2015
10.1*+	Non-Employee Director Compensation Policy.				
31.1*	Certification of the Company's Chief Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities and Exchange Act of 1934, as amended, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2*	Certification of the Company's Principal Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities and Exchange Act of 1934, as amended, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1*	Certification of the Company's Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2*	Certification of the Company's Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS*	XBRL Instance Document.				
101.SCH*	XBRL Taxonomy Extension Schema Document.				
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.				
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.				
101.LAB*	XBRL Taxonomy Extension Labels Linkbase Document.				
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.				

* Filed herewith.
\+ Management contract or compensatory plan, contract or arrangement.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 11th day of May 2020.

Paratek Pharmaceuticals, Inc.

By: /s/ Evan Loh M.D.

Evan Loh M.D.
Chief Executive Officer
(Principal Executive Officer)

By: /s/ Sarah Higgins

Sarah Higgins
Vice President, Finance and Controller
(Principal Financial and Accounting Officer)

PARATEK PHARMACEUTICALS, INC.

NON-EMPLOYEE DIRECTOR COMPENSATION POLICY

Each member of the Board of Directors (the *"Board")* who is not also serving as an employee of Paratek Pharmaceuticals, Inc. (the *"Company")* or any of its subsidiaries (each such member, an *"Eligible Director")* will receive the compensation described in this Non-Employee Director Compensation Policy for his or her Board service. This Non-Employee Director Compensation Policy is effective on January 1, 2020 (the *"Effective Date").* An Eligible Director may decline all or any portion of his or her compensation by giving notice to the Company prior to the date for which service begins for a cash payment, or the date of grant for an equity award, as the case may be *(e.g.*, an election to decline the cash payment to be made for a quarter must be made prior to the date the quarter begins). This policy may be amended at any time in the sole discretion of the Board or the Compensation Committee of the Board, and supersedes any prior policies related to compensation of Eligible Directors.

Annual Cash Compensation

The annual cash compensation amount set forth below is payable in equal quarterly installments, payable in arrears on the last day of each fiscal quarter in which the service occurred. If an Eligible Director joins the Board or a committee of the Board at a time other than effective as of the first day of a fiscal quarter, each annual retainer set forth below will be pro-rated based on days served in the applicable fiscal year, with a pro-rated amount paid for the first fiscal quarter in which the Eligible Director provides the service, and regular full quarterly payments thereafter. All annual cash fees are vested upon payment.

1. Annual Board Service Retainer:
   a. All Eligible Directors: $45,000

2. Annual Committee Chair Service Retainer:
   a. Chairman of the Audit Committee: $20,000
   b. Chairman of the Compensation Committee: $15,000
   c. Chairman of the Nominating and Corporate Governance Committee: $10,000

3. Annual Committee Member Service Retainer (other than Chairman):
   a. Member of the Audit Committee: $7,750
   b. Member of the Compensation Committee: $6,000
   c. Member of the Nominating and Corporate Governance Committee: $4,500

Equity Compensation

The stock options and restricted stock units set forth below will be granted under the Company's 2015 Equity Incentive Plan (the *"Plan").* All stock options granted under this policy will be non-statutory stock options, with an exercise price per share equal to 100% of the Fair Market Value (as defined in the Plan) of the underlying Common Stock on the date of grant, and a term of ten years from the date of grant (subject to earlier termination in connection with a termination of service as provided in the Plan). In addition to the vesting schedules described below, in the event of a Change in Control or a Corporate Transaction (each, as defined in the Plan), any unvested portion of the stock options and restricted stock units described below will fully vest and become exercisable as of immediately prior to

the effective time of such Change in Control or Corporate Transaction, subject to the Eligible Director's Continuous Service (as defined in the Plan) on the effective date of such transaction.

1. Initial Grant: On the last trading day of the month in which an Eligible Director is initially elected or appointed to the Board (or if there is no trading day in that month on or after the date of election or appointment of the Eligible Director, then on the last trading day of the month following the month in which an Eligible Director is initially elected or appointed to the Board), the Eligible Director will be granted automatically, without further action by the Board or Compensation Committee of the Board, (i) stock options to purchase 10,000 shares of the Company's Common Stock and (ii) Restricted Stock Units (RSUs) representing 15,000 shares of the Company's Common Stock. The shares subject to each such (i) stock option will vest as to 1/36 of the shares on the last day of the month following the month of the date of grant, and on the last day of each successive month thereafter until fully vested, and (ii) 1/3 of the RSUs will vest on each successive one-year anniversary following the grant date over a three-year period, in either case, subject to the Eligible Director's Continuous Service (as defined in the Plan) through such vesting dates. No Initial Grant will be granted to an Eligible Director who is already serving as a director on the Effective Date.

2. Annual Grant: At the Compensation Committee meeting held in January or February of each year for the purpose of granting executives annual equity incentive awards following the Effective Date or, if a Compensation Committee meeting is not held by the end of February of any year, on the last trading date in February of such year following the Effective Date, each Eligible Director who continues to serve as a non-employee member of the Board on such date will be granted automatically, without further action by the Board or Compensation Committee of the Board, a stock option to purchase 7,000 shares of the Company's Common Stock and Restricted Stock Units (RSUs) representing 9,000 shares of the Company's Common Stock. The shares subject to each such (i) stock option will vest as to 1/12 of the shares on the one-month anniversary following the vesting commencement date, and on the same calendar date of each successive month thereafter until fully vested, and (ii) RSUs on the one-year anniversary following the grant date, subject, in either case, to the Eligible Director's Continuous Service (as defined in the Plan) through such vesting date.

Expenses

The Company will reimburse Eligible Directors for ordinary, necessary and reasonable out-of-pocket travel expenses to cover in-person attendance at and participation in Board and/or Committee meetings.

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Evan Loh, certify that:

1. I have reviewed this Form 10-Q of Paratek Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

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

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

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

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

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

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

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

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

/s/ EVAN LOH, M.D.

Evan Loh, M.D.
Chief Executive Officer
May 11, 2020

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sarah Higgins, certify that:

1. I have reviewed this Form 10-Q of Paratek Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

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

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

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

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

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

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

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

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

/s/ SARAH HIGGINS

Sarah Higgins
Principal Financial Officer
May 11, 2020

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Evan Loh, M.D., Chief Executive Officer of Paratek Pharmaceuticals, Inc. (the "Company"), hereby certifies that, to the best of his knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 (the "Quarterly Report"), to which this Certification is attached as Exhibit 32.1 fully complies with the requirements of Section 13(a) or Section 15(d), of the Exchange Act; and

2. The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations the Company.

In Witness Whereof, the undersigned has set his hand hereto as of the 11th day of May, 2020.

/s/ EVAN LOH, M.D.

Evan Loh, M.D.
Chief Executive Officer

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Paratek Pharmaceuticals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.

Exhibit 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Sarah Higgins, Principal Financial Officer of Paratek Pharmaceuticals, Inc. (the "Company"), hereby certifies that, to the best of her knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended March 31, 2020 (the "Quarterly Report"), to which this Certification is attached as Exhibit 32.2 fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned has set her hand hereto as of the 11th day of May, 2020.

/s/ SARAH HIGGINS

Sarah Higgins
Principal Financial Officer

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Paratek Pharmaceuticals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.