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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2019

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: 001-35518

SUPERNUS PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware			**20-2590184**
(State or other jurisdiction of incorporation or organization)			(I.R.S. Employer Identification No.)
1550 East Gude Drive	**Rockville**	**MD**	**20850**
(Address of principal executive offices)			(Zip Code)

(301) 838-2500
(Registrant's telephone number, including area code)

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 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 Exchange Act). ☐ Yes ☒ No

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

Title of each class	**Outstanding at August 5, 2019**	**Trading Symbol**	**Name of each exchange on which registered**
Common Stock, $0.001 par value per share	52,449,036	SUPN	The Nasdaq Global Market

SUPERNUS PHARMACEUTICALS, INC.
FORM 10-Q — QUARTERLY REPORT
FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2019

PART I — FINANCIAL INFORMATION

Supernus Pharmaceuticals, Inc.
Condensed Consolidated Balance Sheets
(in thousands, except share data)

	June 30, 2019	December 31, 2018
	(unaudited)	
Assets		
Current assets		
Cash and cash equivalents	$ 87,344	$ 192,248
Marketable securities	171,222	163,770
Accounts receivable, net	84,564	102,922
Inventories, net	26,024	25,659
Prepaid expenses and other current assets	21,757	8,888
Total current assets	390,911	493,487
Long term marketable securities	593,754	418,798
Property and equipment, net	4,028	4,095
Intangible assets, net	28,787	31,368
Lease assets	19,639	—
Deferred income taxes	25,975	29,683
Other assets	581	380
Total assets	$ 1,063,675	$ 977,811
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	$ 4,081	$ 3,195
Accrued product returns and rebates	95,934	107,063
Accrued expenses and other current liabilities	38,614	36,535
Income taxes payable	2,674	12,377
Non-recourse liability related to sale of future royalties, current portion	2,668	2,183
Total current liabilities	143,971	161,353
Convertible notes, net	337,210	329,462
Non-recourse liability related to sale of future royalties, long term	21,100	22,575
Lease liabilities, long term	27,535	—
Other liabilities	10,955	11,398
Total liabilities	540,771	524,788
Stockholders' equity		
Common stock, $0.001 par value, 130,000,000 shares authorized 52,449,036 and 52,316,583 shares issued and outstanding as of June 30, 2019 and December 31, 2018, respectively	52	52
Additional paid-in capital	379,369	369,637
Accumulated other comprehensive earnings (loss), net of tax	5,924	(3,158)
Retained earnings	137,559	86,492
Total stockholders' equity	522,904	453,023
Total liabilities and stockholders' equity	$ 1,063,675	$ 977,811

See accompanying notes.

Supernus Pharmaceuticals, Inc.
Condensed Consolidated Statements of Earnings
(in thousands, except share and per share data)

	Three Months ended June 30,		Six Months ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Revenues				
Net product sales	$ 102,358	$ 97,030	$ 185,457	$ 186,150
Royalty revenues	2,337	1,758	4,712	3,067
Licensing revenues	—	750	—	750
Total revenues	104,695	99,538	190,169	189,967
Costs and expenses				
Cost of product sales	4,044	3,683	7,728	6,961
Research and development	16,970	20,038	32,364	38,946
Selling, general and administrative	41,083	40,097	82,051	76,946
Total costs and expenses	62,097	63,818	122,143	122,853
Operating earnings	42,598	35,720	68,026	67,114
Other income (expenses), net	148	(1,864)	(1,041)	(2,076)
Earnings before income taxes	42,746	33,856	66,985	65,038
Income tax expense	10,019	3,119	15,918	7,949
Net earnings	$ 32,727	$ 30,737	$ 51,067	$ 57,089
Earnings per share				
Basic	$ 0.62	$ 0.59	$ 0.98	$ 1.10
Diluted	$ 0.61	$ 0.57	$ 0.95	$ 1.06
Weighted-average shares outstanding				
Basic	52,385,590	51,919,894	52,361,149	51,729,243
Diluted	53,912,977	54,203,308	53,947,834	54,021,941

See accompanying notes.

Supernus Pharmaceuticals, Inc.
Condensed Consolidated Statements of Comprehensive Earnings
(in thousands)

	Three Months ended June 30,		Six Months ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Net earnings	$ 32,727	$ 30,737	$ 51,067	$ 57,089
Other comprehensive earnings (loss)				
Unrealized gain (loss) on marketable securities, net of tax	4,497	(1,828)	9,082	(3,372)
Other comprehensive earnings (loss)	4,497	(1,828)	9,082	(3,372)
Comprehensive earnings	$ 37,224	$ 28,909	$ 60,149	$ 53,717

See accompanying notes.

Supernus Pharmaceuticals, Inc.
Condensed Consolidated Statements of Changes in Stockholders' Equity
Three and Six Month Periods ended June 30, 2019
(unaudited, in thousands, except share data)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Earnings (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount				
Balance, December 31, 2018	52,316,583	$ 52	$ 369,637	$ (3,158)	$ 86,492	$ 453,023
Share-based compensation	—	—	3,287	—	—	3,287
Exercise of stock options	57,665	—	783	—	—	783
Net earnings	—	—	—	—	18,340	18,340
Unrealized gain on marketable securities, net of tax	—	—	—	4,585	—	4,585
Balance, March 31, 2019	52,374,248	$ 52	$ 373,707	$ 1,427	$ 104,832	$ 480,018
Share-based compensation	—	—	4,022	—	—	4,022
Issuance of ESPP shares	48,950	—	1,377	—	—	1,377
Exercise of stock options	25,838	—	263	—	—	263
Net earnings	—	—	—	—	32,727	32,727
Unrealized gain on marketable securities, net of tax	—	—	—	4,497	—	4,497
Balance, June 30, 2019	52,449,036	$ 52	$ 379,369	$ 5,924	$ 137,559	$ 522,904

See accompanying notes.

Supernus Pharmaceuticals, Inc.
Condensed Consolidated Statements of Changes in Stockholders' Equity
Three and Six Month Periods ended June 30, 2018
(unaudited, in thousands, except share data)

	Common Stock					
	Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Retained Earnings (Accumulated Deficit)	Total Stockholders' Equity
Balance, December 31, 2017	51,314,850	$ 51	$ 294,999	$ (747)	$ (26,823)	$ 267,480
Cumulative-effect of adoption of ASC 606	—	—	—	—	2,322	$ 2,322
Balance, January 1, 2018	51,314,850	51	294,999	(747)	(24,501)	269,802
Share-based compensation	—	—	2,635	—	—	2,635
Exercise of stock options	319,141	1	2,857	—	—	2,858
Equity component of convertible notes, net of tax	—	—	56,215	—	—	56,215
Purchase of convertible note hedges, net of tax	—	—	(70,137)	—	—	(70,137)
Issuance of warrants	—	—	65,688	—	—	65,688
Net earnings	—	—	—	—	26,352	26,352
Unrealized loss on marketable securities, net of tax	—	—	—	(1,544)	—	(1,544)
Balance, March 31, 2018	51,633,991	$ 52	$ 352,257	$ (2,291)	$ 1,851	$ 351,869
Share-based compensation	—	—	3,068	—	—	3,068
Issuance of ESPP shares	34,676	—	1,184	—	—	1,184
Exercise of stock options	510,667	—	5,462	—	—	5,462
Net earnings	—	—	—	—	30,737	30,737
Unrealized loss on marketable securities, net of tax	—	—	—	(1,828)	—	(1,828)
Balance, June 30, 2018	52,179,334	$ 52	$ 361,971	$ (4,119)	$ 32,588	$ 390,492

See accompanying notes.

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

	Six Months ended June 30,	
	2019	2018
	(unaudited)	
Cash flows from operating activities		
Net earnings	$ 51,067	$ 57,089
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Realized loss on sales of securities	(93)	—
Depreciation and amortization	3,355	3,487
Amortization of operating lease assets	1,230	—
Amortization of deferred financing costs and debt discount	7,748	4,307
Amortization of premium/discount on marketable securities	(1,625)	(1,835)
Non-cash interest expense	2,851	1,905
Non-cash royalty revenue	(3,368)	(2,780)
Share-based compensation expense	7,309	5,703
Deferred income tax (benefit) provision	861	(395)
Changes in operating assets and liabilities:		
Accounts receivable	18,439	(7,776)
Inventories	(365)	(4,376)
Prepaid expenses and other current assets	(3,581)	(8,060)
Other non-current assets	(140)	(342)
Accounts payable	886	(3,838)
Accrued product returns and rebates	(11,129)	1,701
Accrued expenses and other current liabilities	(1,307)	2,964
Income taxes payable	(9,703)	(15,938)
Other non-current liabilities	(755)	1,873
Net cash provided by operating activities	61,680	33,689
Cash flows from investing activities		
Purchases of marketable securities	(264,926)	(491,655)
Sales and maturities of marketable securities	96,165	19,466
Purchases of property and equipment	(245)	(557)
Deferred legal fees	(1)	(401)
Net cash used in investing activities	(169,007)	(473,147)
Cash flows from financing activities		
Proceeds from issuance of convertible notes	—	402,500
Convertible notes issuance financing costs	—	(10,435)
Proceeds from issuance of warrants	—	65,688
Purchases of convertible note hedges	—	(92,897)
Proceeds from issuance of common stock	2,423	9,503
Net cash provided by financing activities	2,423	374,359
Net change in cash and cash equivalents	(104,904)	(65,099)
Cash and cash equivalents at beginning of year	192,248	100,304
Cash and cash equivalents at end of period	$ 87,344	$ 35,205
Supplemental cash flow information		
Cash paid for interest on convertible notes	$ 1,258	$ —
Income taxes paid	$ 24,795	$ 29,279
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	$ 2,704	$ 2,707
Non-cash investing and financing activities		
Deferred legal fees included in accounts payable and accrued expenses	$ 280	$ 480
Lease assets and tenant receivable obtained for new operating leases	$ 31,727	$ —

See accompanying notes.

Supernus Pharmaceuticals, Inc.
Notes to Condensed Consolidated Financial Statements (unaudited)

1. Organization and Business

Supernus Pharmaceuticals, Inc. (the Company) was incorporated in Delaware and commenced operations in 2005. The Company is a pharmaceutical company focused on developing and commercializing products for the treatment of central nervous system (CNS) diseases. The Company markets two products: Oxtellar XR for the treatment of epilepsy and Trokendi XR for the prophylaxis of migraine headache and treatment of epilepsy. The Company has several proprietary product candidates in clinical development that address the CNS market.

The Company launched Oxtellar XR and Trokendi XR for the treatment of epilepsy in 2013, launched Trokendi XR for the prophylaxis of migraine headache in adolescents and adults in April 2017 and launched Oxtellar XR with an expanded indication to include monotherapy for partial seizures in January 2019.

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company's condensed consolidated financial statements include the accounts of Supernus Pharmaceuticals, Inc., Supernus Europe Ltd., Biscayne Neurotherapeutics, Inc. and its wholly-owned subsidiary, Biscayne Neurotherapeutics Australia Pty Ltd., collectively referred to herein as "Supernus" or "the Company." All significant intercompany transactions and balances have been eliminated in consolidation.

The Company's unaudited condensed consolidated financial statements have been prepared in accordance with the requirements of the U.S. Securities and Exchange Commission (SEC) for interim financial information. As permitted under Generally Accepted Accounting Principles in the United States (U.S. GAAP), certain notes and other information have been omitted from the interim unaudited condensed consolidated financial statements presented in this Quarterly Report on Form 10-Q. Therefore, these financial statements should be read in conjunction with the Company's most recent Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC.

In management's opinion, the condensed consolidated financial statements include all normal and recurring adjustments necessary for a fair presentation of the Company's financial position, results of operations and cash flows. The results of operations for any interim period are not necessarily indicative of the Company's future quarterly or annual results.

The Company, which is primarily located in the United States (U.S.), operates in one operating segment.

Use of Estimates

The Company bases its estimates on: historical experience; various forecasts; information received from its service providers; and other assumptions that the Company believes are reasonable under the circumstances. Actual results could differ materially from the Company's estimates. The Company evaluates the methodologies employed in its estimates on an ongoing basis.

Revenue Recognition

The Company recognizes revenue when physical control of goods or provision of services are transferred to the Company's customers, in an amount that reflects the consideration the Company expects to receive in exchange for those goods or services. The Company does not adjust revenue for any financing effects for transactions where the Company expects the period between the transfer of the goods or services and collection to be less than one year.

There were no contract assets or liabilities recorded as of June 30, 2019.

Revenue from Product Sales

The Company's products are distributed to its customers through a third party fulfillment center. The Company's customers, who are primarily pharmaceutical wholesalers and distributors, purchase product to fulfill orders from retail pharmacy chains and independent pharmacies of varying size and purchasing power. The Company recognizes gross revenue when its products are received by its customers after shipment from the fulfillment center. Customers take control of the products, including title and ownership, upon physical receipt of our products at their facilities.

Product sales are recorded net of various forms of variable consideration, including: estimated rebates; an estimated liability for future product returns and discounts; (collectively, "sales deductions").

As described below, variability in the net transaction price for the Company's products arises primarily from sales deductions. Significant judgment is required in estimating sales deductions. In making these estimates, the Company considers: historical experience; product price increases; current contract prices under applicable programs; unbilled claims; processing time lags; and inventory levels in the distribution channel. The Company adjusts its estimates of revenue either when the most likely amount of consideration it expects to receive changes, or when the consideration becomes fixed.

If actual results in the future vary from estimates, the Company adjusts these estimates. These adjustments could materially affect net product sales and earnings in the period that such adjustments are recorded.

Sales Deductions

Sales deductions are primarily comprised of: estimated rebates; an estimated liability for future product returns and discounts. The Company records product sales net of the following sales deductions:

- *Rebates:* Rebates are discounts which the Company pays under either public sector or private sector health care programs. Public sector rebate programs encompass: various Medicaid Drug Rebate Programs; Medicare Coverage Gap Programs; and programs covering public health service institutions and government entities. All federal employees and agencies purchase drugs under the Federal Supply Schedule. Private sector rebate programs include: contractual agreements with managed care providers, under which the Company pays fees to gain access to that provider's patient drug formulary; and Company sponsored programs, under which the Company defrays or eliminates patient co-payment charges that the patient would otherwise pay to their managed care provider. Rebates paid under public sector programs are generally mandated under law, whereas private sector rebates are generally contractually negotiated by the Company with managed care providers.

  Rebates are owed upon dispensing our product to a patient; i.e., filling a prescription. The accrual balance for rebates consists of three components. First, because rebates are generally invoiced and paid quarterly in arrears, the accrual balance consists of an estimate of the amount expected to be incurred for prescriptions dispensed in the current quarter. Second, the accrual balance also includes an estimate for known or estimated prior quarters' unpaid rebates, to cover prescriptions dispensed in past quarters. Third, the accrual balance includes an estimate for rebates that will be prospectively owed, for prescriptions filled in future quarters, that is, for product which has been sold to wholesalers or distributors, and which resides either as wholesaler/distributor inventory, or is held as inventory at pharmacies.

  The Company's estimates of expected rebate claims vary by program and by type of customer, because of the period from the date on which the prescription is filled to the date the Company receives and pays the invoice varies, For each of its products, the Company bases its estimates of expected rebate claims on multiple factors, including historical levels of deductions; contractual terms with managed care providers; actual and anticipated changes in product price; prospective changes in managed care fee for service contracts; prospective changes in co-pay assistance programs; and anticipated changes in program utilization rates (i.e., patient participation rates). The Company records an estimated liability for rebates at the time the customer takes title to the product (i.e., at the time of sale to wholesalers/distributors), and records this liability as a reduction to gross product sales and an increase in *Accrued product returns and rebates* in current liabilities.

  The sensitivity of the Company's estimates varies by program and by type of customer. If actual rebates vary from estimated amounts, the Company may need to adjust the balances of such accrued rebates to reflect actual experience with respect to these programs. These changes could materially affect the estimated liability balance, net product sales and earnings in the period of adjustment.

- *Returns*: Sale of the Company's products are not subject to a general right of return. Product that has been used to fill patient prescriptions is no longer subject to any right of return. However, the Company will accept return of product that is damaged or defective when shipped from its third party fulfillment center. In addition, the Company will accept return of expired product six months prior to and up to 12 months subsequent to the product's expiry date. Expired or defective returned product cannot be re-sold and is therefore destroyed.

  The Company records an estimated liability for product returns at the time the customer takes title to the product (i.e., at time of sale) as a reduction to gross product sales and an increase in *Accrued product returns and rebates* in current liabilities. The Company estimates the liability for returns based on the actual returns experience for its two commercial products, in conjunction with industry experience for return of similar products (i.e., ambient temperature

storage for oral formulations). Because the Company's products have not reached maturity, the return rate of its products has and is expected to continue to vary.

The Company's estimated liability for product returns is also affected by price increases taken subsequent to the date of sale. The Company's products have a shelf life of 48 months from date of manufacture. Because of the extended shelf life, coupled with its return policy, there typically is a significant time lag between the time at which the product is sold and when the Company issues credit on expired product. The Company's policy generally permits product returns to be processed at current wholesaler price rather than historical acquisition price. Therefore, price increase(s) taken during the current period increase(s) the liability for product returns because it affects the estimated liability for product returns for both sales made in the current period as well as sales made in prior periods. When the Company adjusts its estimates for product returns, either favorably or unfavorably, this adjustment affects the estimated liability, product sales and earnings in the period of adjustment.

- *Sales discounts*: Distributors and wholesalers of pharmaceutical products are generally offered various forms of consideration, including allowances, service fees and prompt payment discounts for distributing our products. Distributor and wholesaler allowances and service fees arise from contractual agreements and are estimated as a percentage of the price at which the Company sells product to them. In addition, they are offered a prompt pay discount for payment within a specified period.

The Company accounts for these discounts at the time of sale, as a reduction to gross product sales, and records these amounts as a valuation allowance against *Accounts receivable*.

Customer orders are generally fulfilled within a few days of receipt, resulting in minimal order backlog. Open purchase orders for products from customers are expected to be fulfilled within the next 12 months. There are no minimum product purchase requirements.

License Revenues

License and Collaboration Agreements

The Company has entered into collaboration agreements to commercialize both Oxtellar XR and Trokendi XR outside of the U.S., which agreements include the right to use the Company's intellectual property as a functional license. These agreements generally include an up-front license fee and ongoing milestone payments upon the achievement of specific events. These agreements may also require minimum royalty payments, based on sales of products developed from the applicable intellectual property.

Up-front license fees are recognized once the license has been executed between the Company and its licensee.

Milestones are a form of variable consideration that are recognized when either the underlying events have been achieved (i.e., event-based milestone) or when the sales-based targets have been met by the collaborative partner (i.e., sales-based milestone). Both types of milestone payments are non-refundable. The Company evaluates whether achieving the milestones is considered probable and estimates the amount of the milestone to be included in the transaction price using the most likely amount method. The value of the associated milestone is not included in the transaction price if it is probable that a significant revenue reversal would occur. This estimation can involve management's judgment that includes assessing factors that are outside of the Company's influence, such as: likelihood of regulatory success; availability of third party information; and expected duration of time until achievement of the event. These factors are evaluated based on the specific facts and circumstances.

Event-based milestones are recognized in the period that the related event, such as regulatory approval, occurs. Milestone payments that are not within the control of the Company, such as approval from regulatory authorities, or where attainment of the specified event is dependent on the success of a third-party, are not considered probable until the specified event occurs. Sales-based milestones are recognized as revenue when the sales-based target is achieved. Revenue is recognized from the satisfaction of performance obligations in the amount billable to the customer.

Revenue associated with future milestones will be recognized when the related event occurs or the sales-based target is achieved. No guaranteed minimum amounts are owed to the Company related to license and collaboration agreements.

Royalty Revenues

The Company recognizes non-cash royalty revenue for amounts earned pursuant to a royalty agreement with United Therapeutics Corporation (United Therapeutics), which agreement includes the right to use the Company's intellectual property as

a functional license. In 2014, the Company sold certain of these royalty rights to Healthcare Royalty Partners III, L.P. (HC Royalty) (see Note 17, Commitments and Contingencies). Accordingly, the Company records non-cash royalty revenue based on estimated product sales by United Therapeutics, in which sales of United Therapeutics' product, result in payments made from United Therapeutics to HC Royalty in connection with these agreements.

Royalty revenue also includes royalty amounts received from collaboration partners, including from Shire Plc (Shire) (now a subsidiary of Takeda Pharmaceutical Company Ltd), based on net product sales of Shire's product, Mydayis, in the current period. Royalty revenue is only recognized when the underlying product sale by Shire occurs. The Shire arrangement also includes Shire's right to use the Company's intellectual property as a functional license.

There are no guaranteed minimum amounts owed to the Company related to any royalty revenue agreement.

Preclinical Study and Clinical Trial Accruals

The Company estimates preclinical study and clinical trial expenses based on the services performed pursuant to contracts with research institutions, clinical investigators, clinical research organizations (CROs) and other service providers that conduct activities on the Company's behalf. In recording service fees, the Company estimates the time period over which the related services are performed and compares the level of effort expended through the end of each period with the cumulative expenses recorded and payments made for such services. As appropriate, the Company accrues additional service fees or defers any non-refundable advance payments until the related services are performed. If the actual timing of the performance of services or the level of effort varies from the estimate, the Company adjusts its accrued expenses or its deferred advance payments accordingly. If the Company subsequently determines that it no longer expects the services associated with a nonrefundable advance payment to be rendered, the remaining portion of that advance payment is charged to expense in the period in which such determination is made.

Share-Based Compensation

The Company recognizes share-based compensation expense over the service period using the straight-line method. Employee share-based compensation is measured based on estimated fair value as of the grant date. The Company uses the Black-Scholes option-pricing model in calculating the fair value of option grants as of the grant date. The Company uses the following assumptions for estimating fair value of option grants:

Fair Value of Common Stock—The fair value of the common stock underlying the option grants is determined based on observable market prices of the Company's common stock.

Expected Volatility—Volatility is a measure of the amount by which the Company's share price has fluctuated (i.e., historical volatility) or is expected to fluctuate (i.e., expected volatility) during a period. Beginning in the first quarter of 2019, the Company began using the historical volatility of its common stock to measure expected volatility for future option grants. Prior to the first quarter of 2019, volatility was estimated using the volatility of the common stock of several public entities of similar size, complexity, and stage of development as well as taking into consideration the Company's actual volatility since the Company's IPO in 2012.

Dividend Yield—The Company has never declared or paid dividends, and has no plans to do so in the foreseeable future.

Expected Term—This is the period of time during which options are expected to remain unexercised. Options have a maximum contractual term of ten years. Beginning in the first quarter of 2019, the Company began estimating the average expected life of stock options using its historical experience. Prior to the first quarter of 2019, the Company determined the average expected life of stock options according to the "simplified method", as described in Staff Accounting Bulletin 110, which is the mid-point between the vesting date and the end of the contractual term.

Risk-Free Interest Rate—This is the U.S. Treasury Note rate as of the week each option grant is issued, with a term that most closely resembles the expected term of the option.

Expected Forfeiture Rate—Forfeitures are accounted for as they occur.

Self-insurance Liabilities

As of January 1, 2019, the Company self-insures its employee medical insurance liability. The self-insurance liability is undiscounted and is determined actuarially. It is based on claims filed, historical and industry claims experience, and an estimate of claims incurred but not yet paid. The Company has established stop-loss amounts that limit the Company's further exposure

after a claim reaches the designated stop-loss threshold. The stop-loss limit for self-insured employee medical claims is $150,000 per employee per year.

The Company recorded self-insurance liability of approximately $500,000 as of June 30, 2019 in *Accrued expenses and other current liabilities* in the condensed consolidated balance sheets.

Advertising Expense

Advertising expense includes costs of promotional materials and activities, such as marketing materials, marketing programs and speaker programs. The costs of the Company's advertising efforts are expensed as incurred.

The Company incurred approximately $11.2 million and $21.2 million in advertising costs for the three and six month periods ended June 30, 2019, respectively, and approximately $11.1 million and $19.0 million in advertising costs for the three and six month periods ended 2018, respectively. These expenses are recorded in *Selling, general and administrative* in the condensed consolidated statements of earnings.

Recently Issued Accounting Pronouncements

Accounting Pronouncements Adopted

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-02, "*Leases (Topic 842)*" and its related amendments (New Lease Standard). The New Lease Standard requires a lessee to recognize a right-of-use lease asset and a corresponding lease liability on the balance sheet. The Company adopted the New Lease Standard on January 1, 2019 using the modified retrospective method, which applies the provision of the New Lease Standard at the effective date without adjusting comparative periods presented. In addition, the Company elected the package of practical expedients permitted under the transition guidance within the New Lease Standard which, among other things, allowed the Company to carry forward the historical lease classification.

The adoption of the New Lease Standard resulted in the recognition of lease assets and lease liabilities for operating leases as of January 1, 2019 of approximately $4.0 million. Financial reporting for periods on or after January 1, 2019 are presented under the new guidance. Prior period amounts are not adjusted and continue to be reported in accordance with previous guidance. The standard did not materially impact the Company's condensed consolidated net earnings and had no impact on cash flows (see Note 14, *Leases*).

New Accounting Pronouncements Not Yet Adopted

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326)*, which requires credit losses on financial assets measured on an amortized cost basis to be presented at the net amount expected to be collected, rather than based on incurred losses. Further, credit losses on available-for-sale debt securities should be recorded through an allowance for credit losses, limited to the amount by which fair value is below amortized cost. The new standard also requires enhanced disclosure of credit risk associated with respective assets. The standard is effective for fiscal years beginning after December 15, 2019, for interim and annual periods within those years, with early adoption permitted. The Company is currently assessing the impact of this new standard and does not expect the adoption of the guidance to have a material impact on its condensed consolidated financial statements.

3. Fair Value of Financial Instruments

The fair value of an asset or liability represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between arm's length market participants.

The Company reports assets and liabilities measured at fair value using a three level fair value hierarchy that prioritizes the inputs used to measure fair value. The three levels of inputs used to measure fair value are as follows:

- Level 1—Inputs are unadjusted quoted prices in active markets for identical assets that the Company has the ability to access as of the measurement date.
- Level 2—Inputs are: quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates, yield curves, etc.); and inputs that are derived principally from or corroborated by observable market data by correlation or other means (i.e., market corroborated inputs).

- Level 3—Unobservable inputs that reflect the Company's own assumptions, based on the best information available, including the Company's own data.

Financial Assets

The Company's financial assets that are required to be measured at fair value on a recurring basis are as follows, in thousands of dollars:

		Fair Value Measurements at June 30, 2019 (unaudited)	
	Total Fair Value at June 30, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Assets:			
Cash and cash equivalents	$ 87,344	$ 87,344	$ —
Marketable securities			
Corporate debt securities	171,222	247	170,975
Long term marketable securities			
Corporate debt securities	558,755	454	558,301
U.S. government agency debt securities	34,999	—	34,999
Other non-current assets			
Marketable securities - restricted (SERP)	387	1	386
Total assets at fair value	$ 852,707	$ 88,046	$ 764,661

		Fair Value Measurements at December 31, 2018	
	Total Fair Value at December 31, 2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Assets:			
Cash and cash equivalents	$ 192,248	$ 192,248	$ —
Marketable securities			
Corporate debt securities	163,770	245	163,525
Long term marketable securities			
Corporate debt securities	415,650	445	415,205
U.S. government agency debt securities	3,148	—	3,148
Other non-current assets			
Marketable securities - restricted (SERP)	326	1	325
Total assets at fair value	$ 775,142	$ 192,939	$ 582,203

Level 1 assets include cash held at banks, certificates of deposit, money market funds, and investment grade corporate and government debt securities.

Level 2 assets include the SERP (Supplemental Executive Retirement Plan) assets, commercial paper and investment grade corporate and U.S. government agency debt securities and other fixed income securities. Level 2 securities are valued using third-party pricing sources that apply applicable inputs and other relevant data in their models to estimate fair value. The fair value of the restricted marketable securities is recorded in *Other assets* in the condensed consolidated balance sheets.

No amount was recorded for level 3 assets as of June 30, 2019.

The carrying amounts of other financial instruments, including accounts receivable, accounts payable and accrued expenses approximate fair value due to their short-term maturities.

Financial Liabilities

The following table sets forth the Company's financial liabilities that are not carried at fair value, in thousands of dollars:

	June 30, 2019 (unaudited)		December 31, 2018	
	Carrying Value	Fair Value (Level 2)	Carrying Value	Fair Value (Level 2)
2023 Notes	$ 337,210	$ 392,689	$ 329,462	$ 375,834

The fair value is estimated based on actual trade information as well as quoted prices provided by bond traders.

Unrestricted available-for-sale marketable securities held by the Company are as follows, in thousands of dollars:

	June 30, 2019 (unaudited)	December 31, 2018
Corporate and U.S. government agency debt securities		
Amortized cost	$ 757,206	$ 586,726
Gross unrealized gains	7,966	55
Gross unrealized losses	(196)	(4,213)
Total fair value	$ 764,976	$ 582,568

The contractual maturities of the unrestricted available-for-sale marketable securities held by the Company are as follows, in thousands of dollars:

	June 30, 2019 (unaudited)
Less than 1 year	$ 171,222
1 year to 2 years	192,488
2 years to 3 years	200,597
3 years to 4 years	200,669
Greater than 4 years	—
Total	$ 764,976

The Company has not experienced any other-than-temporary losses on its marketable securities.

4. Inventories

Inventories consist of the following, in thousands of dollars:

	June 30, 2019 (unaudited)	December 31, 2018
Raw materials	$ 4,953	$ 5,742
Work in process	7,527	7,275
Finished goods	13,544	12,642
Total	$ 26,024	$ 25,659

5. Property and Equipment

Property and equipment consists of the following, in thousands of dollars:

	June 30, 2019	December 31, 2018
	(unaudited)	
Lab equipment and furniture	$ 9,133	$ 8,995
Leasehold improvements	3,163	2,731
Software	2,212	2,181
Computer equipment	1,289	1,313
Construction-in-progress	193	94
	15,990	15,314
Less accumulated depreciation and amortization	(11,962)	(11,219)
Total	$ 4,028	$ 4,095

Depreciation and amortization expense on property and equipment was approximately $0.4 million and $0.7 million for the three and six month periods ended June 30, 2019, respectively, and approximately $0.5 million and $0.9 million for the three and six month periods ended June 30, 2018, respectively.

The Company performs its annual impairment assessment in the fourth quarter, or earlier if impairment indicators exist. As of June 30, 2019, there were no identified indicators of impairment.

6. Intangible Assets

Intangible assets consist of patent defense costs, which are legal fees incurred in conjunction with defending patents for Oxtellar XR and Trokendi XR. The Company amortizes those costs over the useful life of the respective patents.

The following sets forth the gross carrying amount and related accumulated amortization of the intangible assets, in thousands of dollars:

	Weighted-Average Life	June 30, 2019	December 31, 2018
		(unaudited)	
Capitalized patent defense costs	3.51 - 7.76 years	$ 44,755	$ 44,724
Less accumulated amortization		(15,968)	(13,356)
Total		$ 28,787	$ 31,368

Amortization expense on intangible assets was approximately $1.3 million and $2.6 million for the three and six month periods ended June 30, 2019, respectively, essentially unchanged as compared to $1.3 million and $2.6 million for the three and six month periods ended June 30, 2018, respectively.

The Company performs its annual impairment assessment in the fourth quarter, or earlier, if impairment indicators exist. As of June 30, 2019, there were no identified indicators of impairment.

7. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following, in thousands of dollars:

	June 30, 2019	December 31, 2018
	(unaudited)	
Accrued clinical trial and clinical supply costs	$ 17,398	$ 14,034
Accrued compensation	11,339	13,546
Accrued professional fees	3,703	3,706
Lease liabilities and related accrued interest, current	3,357	—
Accrued interest expense	629	650
Accrued product costs	13	38
Other accrued expenses	2,175	4,561
Total	$ 38,614	$ 36,535

8. Accrued Product Returns and Rebates

Accrued product returns and rebates consist of the following, in thousands of dollars:

	June 30, 2019	December 31, 2018
	(unaudited)	
Accrued rebates	$ 74,362	$ 85,003
Accrued product returns	21,572	22,060
Total	$ 95,934	$ 107,063

9. Convertible Senior Notes Due 2023

The 0.625% Convertible Senior Notes Due 2023 (2023 Notes), which were issued in March 2018, bear interest at an annual rate of 0.625%, payable semi-annually in arrears on April 1 and October 1 of each year. The 2023 Notes will mature on April 1, 2023, unless earlier converted or repurchased by the Company. The Company may not redeem the 2023 Notes at its option before maturity.

The 2023 Notes were issued pursuant to an Indenture between the Company and Wilmington Trust, National Association, as trustee. The Indenture includes customary terms and covenants, including certain events of default upon which the 2023 Notes may be due and payable immediately. The Indenture does not contain any financial or operating covenants or restrictions on the payment of dividends, the issuance of other indebtedness or the issuance or repurchase of securities by the Company.

The Company will settle conversions by paying or delivering, as applicable, cash, shares of the Company's common stock or a combination of cash and shares of the Company's common stock, at its election, based on the applicable conversion rate. The initial conversion rate is 16.8545 shares per $1,000 principal amount of the 2023 Notes, which represents an initial conversion price of approximately $59.33 per share, and is subject to adjustment as specified in the Indenture. In the event of conversion, if converted in cash, the holders would forgo all future interest payments, any unpaid accrued interest and the possibility of further stock price appreciation.

If a "make-whole fundamental change," as defined in the Indenture, occurs, then the Company will in certain circumstances increase the conversion rate for a specified period of time. If a "fundamental change," as defined in the Indenture, occurs, then noteholders may require the Company to repurchase their 2023 Notes at a cash repurchase price equal to the principal amount of the 2023 Notes to be repurchased, plus accrued and unpaid interest, if any.

Contemporaneous with the issuance of the 2023 Notes, the Company also entered into separate privately negotiated convertible note hedge transactions (collectively, the Convertible Note Hedge Transactions) with each of the call spread counterparties. The Company issued 402,500 convertible note hedge options. In the event that shares or cash are deliverable to holders of the 2023 Notes upon conversion at limits defined in the Indenture, counterparties to the convertible note hedges will be required to deliver up to approximately 6.8 million shares of the Company's common stock or pay cash to the Company in a similar amount as the value that the Company delivers to the holders of the 2023 Notes, based on a conversion price of $59.33 per share.

Concurrently with entering into the Convertible Note Hedge Transactions, the Company also entered into separate privately negotiated warrant transactions (collectively, the Warrant Transactions) with each of the call spread counterparties. The Company issued a total of 6,783,939 warrants. The warrants entitle the holder to one share per warrant at the strike price through 2023. The strike price of the Warrant Transactions will initially be $80.9063 per share of the Company's common stock, and is subject to adjustment.

The Convertible Note Hedge Transactions are expected to generally reduce the potential dilution with respect to the Company's common stock upon conversion of the 2023 Notes and/or offset any potential cash payments the Company is required to make in excess of the principal amount of converted 2023 Notes, as the case may be. The Warrant Transactions are intended to partially offset the cost to the Company of the purchased Convertible Note Hedge Transactions; however, the Warrant Transactions could have a dilutive effect with respect to the Company's common stock to the extent that the market price per share of the Company's common stock, as measured under the terms of the Warrant Transactions, exceeds the strike price of the warrants.

The liability component of the 2023 Notes consists of the following, in thousands of dollars:

	June 30, 2019	December 31, 2018
	(unaudited)	
Principal amount of the 2023 Notes	$ 402,500	$ 402,500
Debt discount	(76,434)	(76,434)
Deferred financing costs	(8,452)	(8,452)
Accretion of debt discount and deferred financing costs	19,596	11,848
Total carrying value	$ 337,210	$ 329,462

No 2023 Notes were converted as of June 30, 2019.

10. Other Income (Expenses)

Other income (expenses) consist of the following, in thousands of dollars:

	Three Months ended June 30,		Six Months ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Interest income	$ 5,453	$ 3,664	$ 10,134	$ 4,870
Interest expense	(4,169)	(4,324)	(8,879)	(5,041)
Interest expense-nonrecourse liability related to sale of future royalties	(1,136)	(1,204)	(2,296)	(1,905)
Total	$ 148	$ (1,864)	$ (1,041)	$ (2,076)

Interest expense includes non-cash interest expense related to amortization of deferred financing costs and debt discount in the amount of $3.9 million and $7.7 million for the three and six month periods ended June 30, 2019, respectively, and $3.7 million and $4.3 million respectively, for the three and six month periods ended June 30, 2018.

11. Share-Based Payments

Share-based compensation expense is as follows, in thousands of dollars:

	Three Months ended June 30,		Six Months ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Research and development	$ 700	$ 534	$ 1,274	$ 952
Selling, general and administrative	3,322	2,534	6,035	4,751
Total	$ 4,022	$ 3,068	$ 7,309	$ 5,703

The following table summarizes stock options and SAR activities:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)
Outstanding, December 31, 2018	3,916,963	$ 19.98	7.10
Granted (unaudited)	840,435	$ 36.76	
Exercised (unaudited)	(83,503)	$ 12.53	
Forfeited (unaudited)	(28,024)	$ 36.13	
Outstanding, June 30, 2019 (unaudited)	4,645,871	$ 23.05	7.15
As of December 31, 2018:			
Vested and expected to vest	3,916,963	$ 19.98	7.10
Exercisable	1,889,947	$ 12.47	5.96
As of June 30, 2019:			
Vested and expected to vest (unaudited)	4,645,871	$ 23.05	7.15
Exercisable (unaudited)	2,593,729	$ 15.48	5.98

12. Earnings per Share

Basic earnings per share (EPS) is calculated using the weighted-average number of common shares outstanding. Diluted EPS is calculated using the weighted-average number of common shares outstanding, including the dilutive effect of the Company's stock option grants, stock appreciation rights (SAR), warrants, employee stock purchase plan (ESPP) awards and the 2023 Notes, as determined per the treasury stock method.

Effect of Convertible Notes and Related Convertible Note Hedges and Warrants

In connection with the issuance of the 2023 Notes, the Company entered into Convertible Note Hedge and Warrant transactions as described further in Note 9, *Convertible Senior Notes Due 2023*. The collective impact of the Convertible Note Hedges and Warrants effectively eliminates any economic dilution that may occur from the actual conversion of the 2023 Notes between the conversion price of $59.33 per share and the strike price of the Warrants of $80.9063 per share.

The Convertible Notes and Related Convertible Note Hedges and Warrants are excluded in the calculation of diluted EPS because their inclusion would be anti-dilutive. The denominator of the diluted earnings per share calculation excludes additional shares related to the 2023 Notes and Warrants since the average price of the Company's common stock was less than the conversion price of the 2023 Notes of $59.33 per share and the strike price of the Warrants of $80.9063 per share. Prior to actual conversion, the Convertible Note Hedges are not considered for purposes of the calculation of diluted earnings per share, as their effects would be anti-dilutive.

In addition to the above described effect of the convertible notes and the related convertible note hedges and warrants, the Company also excluded the common stock equivalents for outstanding stock-based awards in the calculation of diluted EPS because their inclusion would be anti-dilutive:

	Three Months ended June 30,		Six Months ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Stock options	1,030,370	137,565	300,342	184,760

The following table sets forth the computation of basic and diluted EPS for the three and six month periods ended June 30, 2019 and 2018, in thousands of dollars, except share and per share amounts:

	Three Months ended June 30,		Six Months ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Numerator, in thousands:				
Net earnings used for calculation of basic and diluted EPS	$ 32,727	$ 30,737	$ 51,067	$ 57,089
Denominator:				
Weighted average shares outstanding, basic	52,385,590	51,919,894	52,361,149	51,729,243
Effect of dilutive potential common shares:				
Stock options and SAR	1,527,387	2,283,414	1,586,685	2,292,698
Weighted average shares outstanding, diluted	53,912,977	54,203,308	53,947,834	54,021,941
Earnings per share, basic	$ 0.62	$ 0.59	$ 0.98	$ 1.10
Earnings per share, diluted	$ 0.61	$ 0.57	$ 0.95	$ 1.06

13. Income Taxes

The following table provides information regarding the Company's income tax expense and effective tax rate for the three and six month periods ended June 30, 2019 and 2018, including percent change (dollar amounts in thousands):

	Three Months ended June 30,		Six Months ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Income tax expense	$ 10,019	$ 3,119	$ 15,918	$ 7,949
Effective tax rate	23.40%	9.20%	23.80%	12.20%

The increase in income tax expense and the increase in the effective tax rate for the three and six month periods ended June 30, 2019, as compared to the same periods in the prior year, was primarily attributable to the larger tax benefits realized in 2018 related to exercises of employee stock options.

14. Leases

The Company determines if an arrangement is a lease at inception. Some leases include options to terminate or to extend for one or more years. These options are included in the lease term when it is reasonably certain that the option will be exercised.

The Company has lease arrangements that contain lease components (e.g., minimum rent payments) and non-lease components (e.g., maintenance, labor charges, etc.). It accounts for these components as a single lease component. The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Operating leases are included in *Lease assets*, *Accrued expenses and other current liabilities*, and *Lease liabilities, long term* on the condensed consolidated balance sheets. Leases with an initial term of 12 months or less are not recorded on the

balance sheet. Operating lease assets and lease liabilities are recognized at the commencement date based on the present value of the future minimum lease payments over the lease term. The Company calculates the present value of future payments by using an incremental borrowing rate which approximates the rate at which the Company would borrow, on a secured basis and over a similar term. This rate is based on information available at commencement date of the lease and may differs for individual leases or for portfolios of leased assets. The Company recognizes lease expense for these leases on a straight-line basis over the lease term. Lease expense for operating leases is recognized as an operating cost.

The Company has operating leases for its current headquarters office and lab space at 1550 East Gude Drive in Rockville, MD and for its fleet vehicles. The Company's existing leases for its current headquarters office and lab space run through April 2020. Given the volume of individual leases involved in the overall arrangement, the Company applies a portfolio approach for the fleet vehicle leases to effectively account for the operating lease assets and liabilities.

New Headquarters Lease

The Company entered into a new lease agreement, effective January 31, 2019, with Advent Key West, LLC (Landlord), for its new headquarters in Rockville, MD (Premises). The term of the new headquarters lease commenced on February 1, 2019 (the Commencement Date) and will continue until April 30, 2034, unless earlier terminated in accordance with the terms of the lease. The lease includes options to extend the lease for up to 10 years. Fixed rent with respect to the Premises begins on the Commencement Date; however, the Landlord agreed to a rent abatement from the Commencement Date through April 30, 2020. The initial fixed rental rate is approximately $195,000 per month for the first 12 months. The rate will automatically increase by 2% on each anniversary of the Commencement Date. Under the terms of the Lease, the Company provided a security deposit of approximately $195,000 and will be required to pay all utility charges for the Premises and its pro rata share of any operating expenses and real estate taxes. The Company will occupy the Premises upon completion of the build-out of the Premises.

The lease also provides for a tenant improvement allowance of approximately $10.2 million, in aggregate. Any unspent tenant improvement allowance as of January 31, 2020 will be forfeited. The full amount of the tenant improvement allowance was initially recorded in *Prepaid expenses and other current assets* in the condensed consolidated balance sheets.

Lease assets, lease-related assets and lease liabilities are as follows, in thousands of dollars:

		June 30, 2019
		(unaudited)
Assets	**Balance Sheet Classification**	
Operating leases	Lease assets	$ 19,639
Tenant receivable	Prepaid expenses and other current assets	9,720
Total lease and lease-related assets		$ 29,359
Liabilities		
Current		
Operating leases	Accrued expenses and other current liabilities	$ 3,357
Non-current		
Operating leases	Lease liabilities, long term	27,535
Total lease liabilities		$ 30,892

Lease costs for the three and six month periods ended June 30, 2019 are as follows, in thousands of dollars:

	Three Months ended June 30,	Six Months ended June 30,
	2019	
	(unaudited)	
Operating leases cost		
Fixed lease cost	$ 987	$ 2,019
Variable lease cost	518	983
Total operating leases cost	$ 1,505	$ 3,002

Weighted average lease term and discount rate for operating leases as of June 30, 2019 are as follows, unaudited:

Weighted-average remaining lease term (years)	13.35
Weighted-average discount rate	4.36%

Future minimum lease payments under non-cancellable operating leases as of June 30, 2019 are as follows, in thousands of dollars, unaudited:

Year ending December 31:		
2019 (remaining)	$	1,704
2020		3,054
2021		2,687
2022		2,526
2023		2,537
Thereafter		29,371
Total future minimum lease payments	$	41,879
Less: Imputed interest [(1)]		(10,987)
Present value of lease liabilities	$	30,892

[(1)] Calculated using the interest rate for each lease.

Disclosure Related to Periods Prior to Adoption of the New Lease Standard

Rent expense for the leased facilities and leased vehicles for the years ended December 31, 2018, 2017 and 2016 was approximately $3.6 million, $2.7 million and $2.7 million, respectively.

Future minimum lease payments under non-cancelable operating leases as of December 31, 2018 are as follows, in thousands of dollars:

Year ending December 31:		
2019	$	3,400
2020		2,287
Thereafter		1,840
Total	$	7,527

15. Accounts Receivable

The Company recorded an allowance of approximately $12.0 million and $11.5 million for expected sales discounts and allowances related to prompt pay discounts and fees in conjunction with contractual service arrangements with the Company's customers, primarily pharmaceutical wholesalers/distributors, as of June 30, 2019 and December 31, 2018, respectively.

16. Disaggregated Revenues

The following table summarizes the disaggregation of revenues by nature, in thousands of dollars:

	Three Months ended June 30,		Six Months ended June 30,	
	2019	2018	2019	2018
	(unaudited)		(unaudited)	
Net product sales				
Trokendi XR	$ 78,964	$ 76,474	$ 142,657	$ 147,029
Oxtellar XR	23,394	20,556	42,800	39,121
Total net product sales	$ 102,358	$ 97,030	$ 185,457	$ 186,150
Royalty revenues	2,337	1,758	4,712	3,067
Licensing revenues	—	750	—	750
Total revenues	$ 104,695	$ 99,538	$ 190,169	$ 189,967

The majority of the Company's product sales are to pharmaceutical wholesalers/distributors who, in turn, sell the Company's products to chain and independent pharmacies, hospitals and other customers. Three pharmaceutical wholesalers/distributors collectively accounted for more than 90% of the Company's total net product sales and accounts receivables as of and for the three and six month periods ended June 30, 2019 and 2018, respectively.

The Company recognized non-cash royalty revenue of $1.8 million and $3.4 million for the three and six month periods ended June 30, 2019, respectively. The Company recorded non-cash royalty revenue of $1.5 million and $2.8 million for the three and six month periods ended June 30, 2018, respectively.

No milestone revenue was recorded for the three and six month periods ended June 30, 2019. The Company recorded $0.8 million in milestone revenue for both the three and six month periods ended June 30, 2018.

For the three and six month periods ended June 30, 2019, revenues recognized from performance obligations related to prior periods (e.g., due to changes in transaction price) were not material, in the aggregate, to either *Net product sales* or *Royalty revenues.*

17. Commitments and Contingencies

Product Licenses

The Company has obtained exclusive licenses from third parties for proprietary rights to support the product candidates in the Company's neurology and psychiatry portfolio. Under these license agreements, the Company may be required to pay certain amounts upon the achievement of certain milestones. If these products are ultimately commercialized, the Company is also obligated to pay royalties to third parties, as percentage of net product sales, for each respective product under license agreement.

Royalty Agreement

In the third quarter of 2014, the Company received a $30.0 million payment pursuant to a Royalty Interest Acquisition Agreement related to the purchase by HC Royalty of certain of the Company's rights under the Company's agreement with United Therapeutics related to the commercialization of Orenitram (treprostinil) Extended-Release Tablets. The Company will retain full ownership of the royalty rights if and when a certain cumulative payment threshold is reached, per the terms of the agreement. The Company recorded a non-recourse liability related to this transaction, and amortizes this amount as non-cash royalty revenue. The Company also recognizes non-cash interest expense related to this liability and accrues interest expense at an effective interest rate. The interest rate is determined based on projections of HC Royalty's rate of return (see Notes 10 and 16).

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

Management's Discussion and Analysis of Financial Condition and Results of Operations is intended to help the reader understand the results of operations and the financial condition of Supernus Pharmaceuticals, Inc. (the Company, we, us, or our). The interim financial statements included in this report and this Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our audited consolidated financial statements and notes thereto for the year ended December 31, 2018 and the related Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are contained in our Annual Report on Form 10-K, filed with the Securities and Exchange Commission on March 1, 2019.

In addition to historical information, this Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are intended to be covered by the safe harbors created thereby. These forward-looking statements may include declarations regarding the Company's belief or current expectations of management, such as statements including the words "budgeted," "anticipate," "project," 'forecast," "estimate," "expect," "may," "believe," "potential," and similar statements or expressions, which are intended to be among the statements that are forward-looking statements, as such statements reflect the reality of risk and uncertainty that is inherent in our business. Actual results may differ materially from those expressed or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which are made as of the date this report was filed with the Securities and Exchange Commission. Our actual results and the timing of events could differ materially from those discussed in our forward-looking statements as a result of many factors, including those set forth under the "Risk Factors" section of our Annual Report on Form 10-K and elsewhere in this report as well as in other reports and documents we file with the Securities and Exchange Commission from time to time. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances occurring after the date of this Quarterly Report on Form 10-Q.

Solely for convenience, in this Quarterly Report on Form 10-Q, the trade names are referred to without the TM symbols and the trademark registrations are referred to without the circled R, but such references should not be construed as any indicator that the Company will not assert, to the fullest extent under applicable law, our rights thereto.

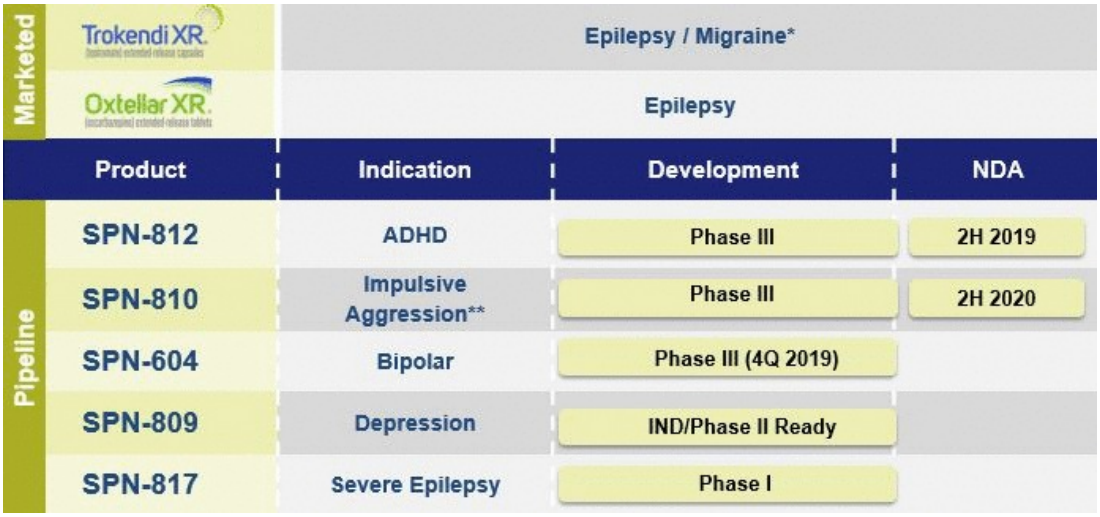
Overview

We are a pharmaceutical company focused on developing and commercializing products for the treatment of central nervous system (CNS) diseases in neurology and psychiatry.

We market two products, Oxtellar XR and Trokendi XR, in the United States (U.S.). We market our products through our own sales force and seek strategic collaborations with other pharmaceutical companies to commercialize our products outside of the U.S. via license agreements.

In addition, we are developing multiple proprietary product candidates in the CNS market to address significant unmet medical needs and significant market opportunities.

The table below summarizes our current portfolio of novel products and product candidates:



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* Prophylaxis of migraine headache in adults and adolescents.

** Initial program is for Impulsive Aggression (IA) in patients with attention deficit hyperactivity disorder (ADHD), with plans to add other indications, such as IA in patients with autism, post traumatic stress disorder (PTSD), bipolar disorder, Alzheimer's and other forms of dementia.

We expect to incur significant expenses as we: invest in research and development related to the continued development of each of our product candidates through FDA approval or until the program terminates; expand product indications for approved products; invest in sales and marketing resources for existing and new products; enter into agreements to purchase products or other companies; and invest in support of our business, technology, regulatory and legal matters.

Our Neurology Portfolio

Our neurology portfolio includes two commercial products and one product candidate for the treatment of neurological diseases.

Commercial Products

Trokendi XR is a once-daily extended release topiramate product for the prophylaxis of migraine headache and for the treatment of epilepsy.

Oxtellar XR is a once-daily extended release oxcarbazepine product that was initially approved for the adjunctive treatment of partial onset seizures of epilepsy. During the first quarter of 2019, we launched Oxtellar XR for the recently approved monotherapy treatment of partial onset seizures of epilepsy in adults and in children 6 to 17 years of age.

These two commercial products differ from immediate release formulations by offering once-daily dosing and unique pharmacokinetic profiles, which we believe can have very positive clinical effects for many patients. We believe a once-daily dosing regimen improves adherence, making it more probable that patients maintain sufficient levels of medication in their bloodstreams to protect against seizures and migraines. In addition, we believe that the unique smooth and steady pharmacokinetic profiles of our once-daily formulations reduce the peak to trough blood level fluctuations, which are typically associated with immediate release products and which may result in increased adverse events (AEs) and more side effects and decreased efficacy.

Product Prescriptions

We expect the number of prescriptions filled for Oxtellar XR and Trokendi XR to continue to increase through 2019 and in subsequent years.

The following table provides information regarding our prescriptions during the periods indicated, including percentage changes in volume:

	Three Months ended June 30,		Change		Six Months ended June 30,		Change	
	2019	2018	Volume	Percent	2019	2018	Volume	Percent
Prescriptions								
Trokendi XR	168,682	158,568	10,114	6%	329,622	303,563	26,059	9%
Oxtellar XR	40,384	36,066	4,318	12%	78,964	70,782	8,182	12%
Total prescriptions	209,066	194,634	14,432	7%	408,586	374,345	34,241	9%

Source: IQVIA

Product Candidate

SPN-817 (huperzine A)

SPN-817 will utilize a novel synthetic form of huperzine A, whose mechanism of action (MOA) includes potent acetyl cholinesterase inhibition with pharmacological activities in CNS conditions such as epilepsy.

SPN-817 Development Program

We plan on studying SPN-817 initially in severe pediatric epilepsy disorders. A Phase I proof-of-concept trial is currently underway outside the U.S. in adult patients with refractory complex partial seizures to study the efficacy, safety and pharmacokinetic profile of a new extended release formulation of non-synthetic huperzine A. We are completing and optimizing the synthesis process for manufacturing huperzine A and developing a novel dosage form prior to conducting additional clinical trials. Given the potency of huperzine A, a novel extended release oral dosage form is critical to the success of this program because initial studies with the immediate release formulations of nonsynthetic huperzine A have shown dose-limiting, serious side effects.

Our Psychiatry Portfolio

Our psychiatry portfolio includes four product candidates for the treatment of psychiatric disorders.

Product Candidates

SPN-812 (extended release viloxazine hydrochloride)

Viloxazine, the active ingredient in SPN-812 is a structurally distinct, bicyclic, serotonin norepinephrine modulating agent (SNMA) with New Chemical Entity (NCE) status in the U.S. We are developing SPN-812 as a novel treatment for ADHD in pediatric and adolescent patients. We believe that SPN-812 could be a better alternative than other non-stimulant and stimulant therapies due to its unique pharmacological and pharmacokinetic profile. Viloxazine has an extensive safety record in Europe, where it was previously marketed for many years as an antidepressant.

SPN-812 Development Program

Our Phase III program consisted of four three-arm, placebo-controlled trials: P301 and P303 trials in patients 6 to 11 years old and P302 and P304 trials in patients 12 to 17 years old. The Phase III program for SPN-812 is complete. In December 2018, we announced positive topline results from the pediatric trials (P301 and P303) and the first adolescent trial (P302). In March 2019, we announced topline results from the second adolescent trial (P304), confirming the positive results seen in the three previous Phase III trials. In addition, we expect to initiate a Phase III program in adults in the fourth quarter of 2019.

Patients completing the Phase III trials were permitted to continue treatment under our open label extension trial. That trial is on-going and is expected to continue through 2020.

The Company continues to focus on compiling the New Drug Application (NDA) for SPN-812 for submission to the U.S. Food and Drug Administration (FDA) in the second half of 2019. We expect to launch SPN-812, assuming FDA approval, in the second half of 2020.

Further, we are continuing to develop and expand our intellectual property (IP) portfolio covering the novel synthesis process for the active ingredient in SPN-812, its novel use in treatment of ADHD, and its novel extended release delivery.

SPN-810 (molindone hydrochloride)

We are developing SPN-810 as a novel treatment for IA in patients who have ADHD, with the potential to be the first product available to address this serious, unmet medical need. Molindone hydrochloride was previously marketed in the U.S. for the treatment of schizophrenia under the trade name Moban at much higher strengths and different dosage forms than we are using in our development program. If we are successful in developing SPN-810 as a novel treatment for IA in patients who have ADHD, we may then develop the product as a candidate for treating other indications; e.g., patients with IA in autism; PTSD; bipolar disorder; Alzheimer's; and other forms of dementia.

SPN-810 Development Program

Our Phase III program consists of two clinical studies in patients 6 to 11 years old (P301 and P302) and one in patients 12 to 17 years old (P503). Data from the first Phase III trial (P301) are expected to be announced in the fourth quarter of 2019 and data from the second trial (P302) in the first quarter of 2020. We expect patient enrollment in the adolescent trial (P503) to continue through 2020.

We expect to submit the NDA for SPN-810 in the second half of 2020, and to launch it, assuming FDA approval, in the second half of 2021.

Patients completing the Phase III trials can continue treatment under our open label extension trial. Enrollment from the P301 and P302 trials into the open label extension trial continues at 90% or higher. On average, a patient in the open label extension study stays on SPN-810 for approximately 10 months, which we believe is an encouraging sign of both tolerability and efficacy.

We continue to develop and expand our IP portfolio covering the novel synthesis process for the active ingredient in SPN-810, its novel use in IA, and its novel extended release delivery.

SPN-809 (viloxazine hydrochloride)

SPN-809 is a novel once-daily product candidate for the treatment of depression. SPN-809 incorporates the same active ingredient as SPN-812, viloxazine hydrochloride.

Because SPN-809 contains the same active ingredient as SPN-812, we expect that many of our activities related to the development of SPN-812 will also benefit the development of SPN-809.

SPN-604 (extended release oxcarbazepine for treatment of bipolar disorder)

We continue to progress our plans to initiate pivotal Phase III studies for the treatment of bipolar disorder in the fourth quarter of 2019. If approved, this would represent the first approval for treatment of bipolar patients with oxcarbazepine in the U.S.

Patents

We currently have nine U.S. patents that cover Trokendi XR. We own all of the issued patents and pending patent applications. We have one patent issued each in Mexico, Australia, Japan and Canada for extended release topiramate, and two patents issued in Europe. The nine issued U.S. patents covering Trokendi XR will expire no earlier than 2027. The Company has entered into settlement agreements with third parties permitting sale of a generic version of Trokendi XR on January 1, 2023, or earlier under certain circumstances.

Our extended release oxcarbazepine patent portfolio currently includes twelve U.S. patents, nine of which cover Oxtellar XR. The nine issued U.S. patents covering Oxtellar XR will expire no earlier than 2027. We own all of the issued patents and the

pending patent applications. We have two issued patents for extended release oxcarbazepine in both Europe and Australia, and one patent issued in Canada, Japan, China and Mexico. In addition, we have a pending U.S. patent application that covers various extended release formulations containing oxcarbazepine.

Our patent portfolio also contains patent applications relating to our pipeline products.

We continue to build our intellectual property portfolio to provide additional protection for our technologies, measurement scales, products and product candidates.

To protect our competitive position, it may be necessary to enforce our patent rights through litigation against infringing third parties. See Part II, Item 1—*Legal Proceedings* for additional information.

Critical Accounting Policies and the Use of Estimates

The significant accounting policies and bases of presentation for our condensed consolidated financial statements are described in Part I, Item 1, Financial Statements, Note 2, *Summary of Significant Accounting Policies* in the Notes to the Condensed Consolidated Financial Statements. Our condensed consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP), requiring us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses, and to disclose material contingent assets and liabilities. Actual results could differ materially from our estimates.

We believe the following accounting policies and estimates to be critical:

Revenue Recognition

Revenue from product sales is recognized when physical control of our products is transferred to our customers, who are pharmaceutical wholesalers and distributors. Product sales are recorded net of various forms of variable consideration, including: estimated rebates; sales discounts; and an estimated liability for future product returns (collectively, "sales deductions"). We adjust our estimates at the earlier of when the most likely amount of consideration we expect to receive changes, or when the consideration becomes fixed. For a complete description of our revenue recognition policy, see Part I, Item 1, Financial Statements, Note 2, *Revenue from Product Sales,* in the Notes to Condensed Consolidated Financial Statements.

Research and Development Expenses and Related Accrued Clinical Expenses

Research and development expenditures are expensed as incurred, and consist of: employee-related expenses, including salaries and benefits; share-based compensation expense; expenses incurred under agreements with clinical research organizations (CROs); fees paid to investigators for treating patients in the context of participating in our clinical trials; consultants and other vendors that assist in the conduct of the Company's clinical trials; the cost of acquiring and manufacturing clinical trial materials, including materials used in process validation (i.e., to the extent that those materials are manufactured prior to receiving regulatory approval for those products and are not expected to be sold commercially); cost of facilities where those facilities do not have an alternative future use; related depreciation and other allocated expenses; license fees for and milestone payments related to in-licensed products and technologies; and costs associated with animal testing activities and regulatory approvals. Assets acquired that are used for research and development and that have no future alternative use are expensed as in-process research and development.

Clinical trials are inherently complex and often involve multiple service providers. Because billing for services often lags by a month or more, we are often required to estimate, and therefore accrue, a significant portion of our clinical expenses. This process involves reviewing open contracts and communicating with our subject matter expert personnel as well as the appropriate service provider personnel to identify services that have been performed on our behalf but for which no invoice has been received. We accrue the cost for unbilled services performed, both partially and fully completed.

Payments to service providers can either be based on hourly rates for service or based on achievement of performance driven milestones. When accruing clinical trial expenses, we estimate the time period over which services will be performed during the life of the entire clinical program, the total cost of the program, and the level of effort to be expended in each intervening period. We work with each service provider to obtain an estimate for incurred but unbilled services as of the end of the calendar quarter, including estimates for payments to site investigators.

We work diligently to minimize, if not eliminate, estimates based solely on company generated calculations. If we and/or the service provider underestimates or overestimates the cost associated with a trial or service at any given point in time,

adjustments to research and development expenses may be necessary in the following periods. Historically, our estimated accrued clinical expenses have closely approximated the actual expenses incurred.

Results of Operations

Comparison of the three and six month periods ended June 30, 2019 and 2018

Revenues

Revenues consist of net product sales of Trokendi XR and Oxtellar XR in the U.S., and royalty and licensing revenues from our collaborative licensing arrangements.

The following table provides information regarding our revenues during the periods indicated, including percentage changes (dollar amount in thousands):

	Three Months ended June 30,		Change		Six Months ended June 30,		Change	
	2019	2018	Dollar	Percent	2019	2018	Dollar	Percent
Net product sales								
Trokendi XR	$ 78,964	$ 76,474	$ 2,490	3%	$ 142,657	$ 147,029	$ (4,372)	(3)%
Oxtellar XR	23,394	20,556	2,838	14%	42,800	39,121	3,679	9%
Total net product sales	$ 102,358	$ 97,030	$ 5,328	5%	$ 185,457	$ 186,150	$ (693)	—%
Royalty revenues	2,337	1,758	579	33%	4,712	3,067	1,645	54%
Licensing revenues	—	750	(750)	(100)%	—	750	(750)	(100)%
Total revenues	$ 104,695	$ 99,538	$ 5,157	5%	$ 190,169	$ 189,967	$ 202	—%

Net product sales

Net product sales are computed as gross revenue from our product shipments to pharmaceutical wholesalers and distributors, less estimates for rebates, product returns and sales discounts.

In the fourth quarter of 2018, wholesalers, distributors and pharmacies increased their inventory holdings, when compared to the prevailing inventory levels in the third quarter of 2018. We estimated that this caused net product sales to be approximately $10 million higher in the fourth quarter of 2018 than it would have been, had channel inventory levels remained consistent from the third to the fourth quarter of 2018.

The channel inventory build-up in the fourth quarter of 2018 was effectively reversed in the first quarter of 2019. Specifically, based on analysis of sales and inventory data, inventory levels at wholesalers, distributors and pharmacies returned to the prevailing levels of the third quarter of 2018. As a result, both gross sales and net product sales decreased in the first half of 2019, as compared to the prior year. The adverse impact on net product sales in the first half of 2019 due to the reduction in channel inventory is estimated at approximately $10 million.

In aggregate, net product sales for the three and six month periods ended June 30, 2019 were favorably impacted by 7% prescription growth and the net impact of an 8% price increase. These favorable impacts were offset by the $10 million impact of the reduction in channel inventory as described above, and adverse changes in net sales deductions. (Refer to sales deductions and related accruals discussion in this section).

Trokendi XR

Trokendi XR net product sales increased by $2.5 million for the three month period ended June 30, 2019 as compared to the same period in 2018. The increase in net product sales for Trokendi XR was primarily due to growth in prescription volume and the net impact of an 8% price increase, offset by changes in net product sales deductions, which resulted from increased utilization of the co-pay program.

Trokendi XR net product sales decreased by $4.4 million for the six months ended June 30, 2019 as compared to the same period in 2018. The primary driver for the decrease was the aforementioned channel inventory reduction, which was partially offset by growth in prescription volume and the impact of the price increase taken in January 2019.

Oxtellar XR

Oxtellar XR net product sales increased by $2.8 million for the three month period ended June 30, 2019 as compared to the same period in 2018. The increase was attributable to growth in prescription volume and the impact of the price increase taken in January, offset by changes in net product sales deductions, which resulted from increased utilization of the co-pay program.

Oxtellar XR net product sales increased by $3.7 million for the six months ended June 30, 2019 as compared to the same period in 2018. The increase was primarily due to growth in prescription volume and the impact of the price increase taken in January, offset by changes in net product sales deductions, which resulted from increased utilization of the co-pay program.

Sales deductions and related accruals

The Company records accrued rebates and accrued product returns in *Accrued product returns and rebates* as current liabilities and records sales discounts as a valuation allowance against *Accounts receivable*. The outstanding amounts of accrued product returns, rebates and allowance for sales discounts as of the respective balance sheet dates are generally affected by the changes in level of gross sales, provision for net product sales deductions and timing of payments/credits.

The following table provides a summary of activities with respect to sales deductions and related accruals for the six months ended June 30, 2019 and 2018, respectively, in thousands of dollars:

	Accrued Liabilities			
	Rebates	Product Returns	Allowance for Sales Discounts	Total
Balance at December 31, 2018	$ 85,003	$ 22,060	$ 11,548	$ 118,611
Provision				
Provision for sales in current year	139,376	4,068	27,394	170,838
Adjustments relating to prior year sales	(888)	(730)	(43)	(1,661)
Total provision	$ 138,488	$ 3,338	$ 27,351	$ 169,177
Less: Actual payments/credits	(149,129)	(3,826)	(26,940)	(179,895)
Balance at June 30, 2019	$ 74,362	$ 21,572	$ 11,959	$ 107,893

	Accrued Liabilities			
	Rebates	Product Returns	Allowance for Sales Discounts	Total
Balance at December 31, 2017	$ 49,460	$ 18,883	$ 8,892	$ 77,235
Provision				
Provision for sales in current year	109,300	4,366	26,885	140,551
Adjustments relating to prior year sales	(1,744)	(81)	(3)	(1,828)
Total provision	$ 107,556	$ 4,285	$ 26,882	$ 138,723
Less: Actual payments/credits	(105,634)	(4,506)	(26,550)	(136,690)
Balance at June 30, 2018	$ 51,382	$ 18,662	$ 9,224	$ 79,268

Overall, the total provision for sales deductions on gross product sales increased by $30.5 million, or 22%, from $138.7 million to $169.2 million, for the six months ended June 30, 2019 and 2018, respectively. Virtually all of this increase is attributable to the year over year increase in the provision for product rebates, of $30.9 million, or 29%.

Year over year increase in the provision for product rebates is primarily attributable to greater utilization of our patient co-pay program. Expansion of this program is attributable, in part, to the continued growth in high deductible health care plans. Growth in prescriptions, and the impact of the 8% price increase taken in January, contributed to the secular increase in product rebates.

Partially offsetting these factors is the effect of the aforementioned reduction in inventory levels at the wholesaler, distributor and pharmacy levels, which effectively reduced rebates.

The decrease in the provision for product returns, approximately $0.9 million, is due primarily to a favorable actual returns experience.

Provision for allowance for sales discounts marginally increased by $0.5 million, from $26.9 million to $27.4 million for the six months ended June 30, 2018 and 2019, respectively. The increase is directly attributable to the prescription volume growth.

Adjustments related to prior year sales due to changes in our estimates had a de minimis impact on net product sales for the six months ended June 30, 2019 and 2018.

Royalty Revenues

Royalty revenues include royalty from net product sales of Mydayis, a product of Shire Plc (now a subsidiary of Takeda Pharmaceuticals Company Ltd.), as well as non-cash royalty revenue pursuant to our agreement with Healthcare Royalty Partners III, L.P. (HC Royalty). HC Royalty receives royalty payments from United Therapeutics Corporation (United Therapeutics) based on net product sales of United Therapeutics product Orenitram and the Company records non-cash royalty revenue based on such product sales.

Royalty revenues increased by $579,000, or 33% in the three months ended June 30, 2019, compared to the same period in 2018, and increased by $1.6 million, or 54% in the six months ended June 30, 2019, compared to the same period in 2018. On both periods, the increase was primarily due to increased sales of Mydayis and Orenitram. Of the total royalty revenues, non-cash royalty revenue for the three and six month periods ended June 30, 2019 was $1.8 million and $3.4 million, respectively, and for the three and six month periods ended June 30, 2018 was $1.5 million and $2.8 million, respectively.

Cost of Product Sales

The following table provides information regarding our cost of product sales during the periods indicated, including percent changes (dollar amounts in thousands):

	Three Months ended June 30,		Change		Six Months ended June 30,		Change	
	2019	2018	Dollar	Percent	2019	2018	Dollar	Percent
Cost of product sales	$ 4,044	$ 3,683	$ 361	10%	$ 7,728	$ 6,961	$ 767	11%

Cost of product sales during the three month period ended June 30, 2019 was $4.0 million, slightly higher than the $3.7 million for the same period in 2018. Cost of product sales during the six months ended June 30, 2019 was $7.7 million compared to $7.0 million for the same period in 2018. The increase in both periods is primarily attributable to higher unit volume.

Research and Development Expenses

The following table provides information regarding our research and development expenses (R&D) during the periods indicated, including percent changes (dollar amounts in thousands):

	Three Months ended June 30,		Change		Six Months ended June 30,		Change	
	2019	2018	Dollar	Percent	2019	2018	Dollar	Percent
Research and development	$ 16,970	$ 20,038	$ (3,068)	(15)%	$ 32,364	$ 38,946	$ (6,582)	(17)%

R&D expenses decreased by $3.1 million in the three month period ended June 30, 2019 as compared to the same period in 2018. R&D expenses decreased by $6.6 million in the six months ended June 30, 2019 as compared to the same period in 2018. The decrease in both periods is primarily driven by the completion of the four Phase III clinical trials for SPN-812 in late 2018/early 2019, partially offset by cost to manufacture SPN-812 to support our upcoming NDA filing.

Selling, General and Administrative Expenses

The following table provides information regarding our selling, general and administrative expenses (SG&A) during the periods indicated, including percent changes (dollar amounts in thousands):

	Three Months ended June 30,		Change		Six Months ended June 30,		Change	
	2019	2018	Dollar	Percent	2019	2018	Dollar	Percent
Selling and marketing	$ 30,219	$ 31,421	$ (1,202)	(4)%	$ 60,968	$ 59,015	$ 1,953	3%
General and administrative	10,864	8,676	2,188	25%	21,083	17,931	3,152	18%
Total	$ 41,083	$ 40,097	$ 986	2%	$ 82,051	$ 76,946	$ 5,105	7%

Selling and Marketing. Selling and marketing expenses decreased by $1.2 million in the three month period ended June 30, 2019 as compared to the same period in 2018. The decrease is primarily due to decreased sample production.

Selling and marketing expenses increased by $2.0 million in the six months ended June 30, 2019 as compared to the same period in 2018. This increase is due to increased promotional and marketing programs, speaker programs and consulting services to support our commercial products, particularly the migraine indication for Trokendi XR and the monotherapy indication for partial seizures for Oxtellar XR.

General and administrative. General and administrative expenses increased by $2.2 million in the three month period ended June 30, 2019 and by $3.2 million in the six months ended June 30, 2019, as compared to the same periods in 2018, respectively. The increase in both periods is primarily due to increased employee-related expenses, including share-based compensation, professional and consulting fees, facilities cost and insurance.

Other Income (Expenses)

The following table provides the components of other income (expenses) during the periods indicated, including percent changes (dollar amounts in thousands):

	Three Months ended June 30,		Change		Six Months ended June 30,		Change	
	2019	2018	Dollar	Percent	2019	2018	Dollar	Percent
Interest income	$ 5,453	$ 3,664	$ 1,789	49%	$ 10,134	$ 4,870	$ 5,264	108%
Interest expense	(4,169)	(4,324)	155	(4)%	(8,879)	(5,041)	(3,838)	76%
Interest expense-nonrecourse liability related to sale of future royalties	(1,136)	(1,204)	68	(6)%	(2,296)	(1,905)	(391)	21%
Total	$ 148	$ (1,864)	$ 2,012	(108)%	$ (1,041)	$ (2,076)	$ 1,035	(50)%

Interest income increased by $1.8 million in the three month period ended June 30, 2019 and increased by $5.3 million in the six months ended June 30, 2019 as compared to the same periods in 2018, respectively. The increase in both periods was primarily attributable to an increase in cash, cash equivalents and marketable security holdings resulting from the issuance of $402.5 million of 0.625% Convertible Senior Notes, due 2023 (2023 Notes) in March 2018.

Interest expense for the three month period ended June 30, 2019 essentially remained unchanged compared to the same period in 2018. Interest expense increased by $3.8 million in the six months ended June 30, 2019 as compared to the same period in 2018, due to non-cash interest expense related to the amortization of deferred financing costs and debt discount on the 2023 Notes.

Non-cash interest expense related to our non-recourse royalty liability slightly decreased for both the three and six month periods ended June 30, 2019 as compared to the same periods in 2018, primarily due to changes in the projected future royalties on sales of Orenitram.

Income Tax Expense

The following table provides information regarding our income tax expense during the periods indicated, including percent changes (dollar amounts in thousands):

	Three Months ended June 30,		Change		Six Months ended June 30,		Change	
	2019	2018	Dollar	Percent	2019	2018	Dollar	Percent
Income tax expense	$10,019	$3,119	$6,900	221.2%	$15,918	$7,949	$7,969	100.3%
Effective tax rate	23.4%	9.2%			23.8%	12.2%		

The increase in income tax expense and in the effective tax rate for the three and six month periods ended June 30, 2019 compared to the same period in 2018 is primarily attributable to higher tax benefits realized in 2018 related to the exercise of employee stock options.

The Company recorded income tax benefits related to the exercise of employee stock options of approximately $0.1 million and $0.4 million for the three and six month periods ended June 30, 2019, respectively, as compared to $4.4 million and $6.4 million for the three and six month periods ended June 30, 2018, respectively.

Liquidity and Capital Resources

We have financed our operations primarily with cash generated from product sales, supplemented by proceeds from the sale of equity and debt securities and royalty and licensing arrangements. We are highly dependent on the commercial success of our two commercial products, Trokendi XR and Oxtellar XR.

We were cash flow positive and were profitable from operations in the six months ended June 30, 2019. While we expect continued profitability for the current year and in subsequent years, we anticipate there may be significant variability from quarter to quarter in our profitability.

We believe our existing cash and cash equivalents, marketable securities and cash received from product sales will be sufficient to finance ongoing operations and to finance development of our new products and label expansions for existing products. To continue to grow our business over the long-term, we plan to commit substantial resources to: product acquisition; product in-licensing; product development and clinical trials of product candidates; and supportive functions such as compliance, finance, management of our intellectual property portfolio, information technology systems and personnel. In each case, spending commensurate with the growth of the business.

We may, from time to time, consider additional funding through a combination of new collaborative arrangements, strategic alliances, additional equity and debt financings, or financing from other sources, especially in conjunction with opportunistic acquisitions or licensing arrangements. We will continue to actively manage our capital structure and to consider all financing opportunities that could strengthen our long-term liquidity profile. Any such capital structure may or may not be similar to transactions in which we have engaged in the past. There can be no assurances that any such financing opportunities will be available on acceptable terms, if at all.

Our working capital at June 30, 2019 was $246.9 million, a decrease of $85.2 million compared to $332.1 million at December 31, 2018. The decrease was primarily due to the increase in investment in long term marketable securities of approximately $175.0 million in the six months ended June 30, 2019. As of June 30, 2019, the Company had $852.3 million cash and cash equivalents, marketable securities, and long term marketable securities, compared to $774.8 million at December 31, 2018. This increase primarily reflects cash generated from operations in the first six months of 2019.

Our stockholders' equity increased by $69.9 million during the six months ended June 30, 2019, primarily as a result of net earnings of $51.1 million, unrealized gains on marketable securities of $9.1 million, coupled with option exercises and share-based compensation.

Summary of Cash Flows

The following table sets forth the major sources and uses of cash for the periods set forth below (summarized, in thousands):

	Six Months ended June 30,		Change
	2019	2018	Dollar
Net cash provided by (used in):			
Operating activities			
Operating earnings	$ 69,335	$ 67,481	$ 1,854
Working capital	(7,655)	(33,792)	26,137
Total operating activities	61,680	33,689	27,991
Investing activities	(169,007)	(473,147)	304,140
Financing activities	2,423	374,359	(371,936)
Net decrease in cash and cash equivalents	$ (104,904)	$ (65,099)	$ (39,805)

Operating Activities

Net cash provided by operating activities is comprised of two components: cash provided by operating earnings and cash provided by changes in working capital. The increase in net cash provided by operating activities is primarily driven by a period

over period increase in operating earnings and favorable cash flows from working capital as a result of cash collections on receivables as described below.

The changes in certain operating assets and liabilities are as follows, in thousands:

	Six Months ended June 30,		
	2019	2018	Explanation of Change
(Increase) Decrease in:			
Accounts receivable	$ 18,439	$ (7,776)	Timing of collections; decreased receivables in 2019 because of sequential decline in prescription volume coupled with channel inventory reduction in first quarter 2019.
Inventories	(365)	(4,376)	Increased inventory to support increased product demand.
Prepaid expenses, other current assets and other non-current assets	(3,721)	(8,402)	Timing differences related to deposits for equipment purchase; prepaid clinical trial costs.
Increase (Decrease) in:			
Accounts payable and accrued other non-current liabilities	(421)	(874)	Timing of vendor payments.
Accrued product returns and rebates	(11,129)	1,701	Increased provision directly related to growth in prescriptions; growth in Medicaid rebates due to taking price increases in 2019, higher utilization of patient co-pay assistance; timing of rebate payments.
Income taxes payable	(9,703)	(15,938)	Timing of income tax payments.
Other	(755)	1,873	Timing of compensation payments.
	$ (7,655)	$ (33,792)	

Investing Activities

Net cash used in investing activities decreased by $304.1 million for the six months ended June 30, 2019, as compared to the same period 2018, primarily due to net purchases of marketable securities, representing the investment of excess cash in long term investments.

Financing Activities

Net cash provided by financing activities decreased to $2.4 million for the six months ended June 30, 2019 versus $374.4 million provided in the same period in 2018, primarily related to issuance of the 2023 Notes and the related convertible note hedges and warrants in March 2018.

Contractual Obligations and Commitments

Refer to the "Contractual Obligations and Commitments" section in "Part II, Item 7 — Management's Discussion and Analysis of Liquidity and Capital Resources" of our Annual Report on Form 10-K for the year ended December 31, 2018, for a discussion of our contractual obligations.

In addition, during the first quarter of 2019, we entered into a new lease agreement with Advent Key West, LLC for our new headquarters in Rockville, MD. Refer to Note 14 in the Notes to Condensed Consolidated Financial Statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Off-Balance Sheet Arrangements

We do not currently have, nor have we ever had, any relationships with unconsolidated entities or financial partnerships, such entities often referred to as structured finance or special purpose entities. These would have been established for the purpose of facilitating off-balance sheet arrangements or for other contractually narrow or limited purposes.

In addition, we do not engage in trading activities involving non-exchange traded contracts.

Recently Issued Accounting Pronouncements

On January 1, 2019, we adopted Accounting Standards Codification (ASC) Topic 842, *Leases*, or ASC 842. For a discussion of new accounting pronouncements, see Note 2 in the Notes to the Condensed Consolidated Financial Statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Item 3.Quantitative and Qualitative Disclosures About Market Risk

The primary objective of our investment activities is to preserve our capital to fund operations and to facilitate business development activities. We also seek to maximize income from our investments without assuming significant interest rate or liquidity risk by investing in investment grade securities, with maturities of four years or less. Our exposure to market risk is confined to investments in cash, cash equivalents, marketable securities and long term marketable securities. As of June 30, 2019, we had unrestricted cash, cash equivalents, marketable securities and long term marketable securities of $852.3 million.

In connection with the 2023 Notes, we have separately entered into Convertible Note Hedge Transactions and Warrant Transactions to reduce the potential dilution of the Company's common stock upon conversion of the 2023 Notes and to partially offset the cost to purchase the Convertible Note Hedge Transactions, respectively. We do not engage in any hedging activities against changes in interest rates. Because of the short-term maturities of our cash, cash equivalents, marketable securities and long term marketable securities, and because we generally hold these securities to maturity, we do not believe that an increase in interest rates would have any significant impact on the realizable value of our investments. We do not have any currency or other derivative financial instruments other than the outstanding warrants to purchase common stock and the convertible note hedges.

We may contract with CROs and investigational sites globally. Currently, we have one ongoing trial, for SPN-817, outside the U.S. We do not hedge our foreign currency exchange rate risk. Transactions denominated in currencies other than the U.S. dollar are recorded based on exchange rates at the time such transactions arise. As of June 30, 2019 and December 31, 2018, substantially all of our liabilities were denominated in the U.S. dollar.

Inflation generally affects us by increasing our cost of labor and the cost of services provided by our vendors. We do not believe that inflation and changing prices over the three and six month periods ended June 30, 2019 and 2018 had a significant impact on our condensed consolidated results of operations.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Our disclosure controls and procedures are designed to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act has been appropriately recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our CEO and CFO, to allow timely decisions regarding required disclosure.

We conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of June 30, 2019, the end of the period covered by this report. Based on that evaluation, under the supervision and with the participation of our management, including our CEO and CFO, we concluded that our disclosure controls and procedures were effective as of June 30, 2019.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

From time to time and in the ordinary course of business, we may be subject to various claims, charges and litigation. We may be required to file infringement claims against third parties for the infringement of our patents. As of June 30, 2019, the Company has no outstanding litigation.

Item 1A Risk Factors

Any investment in our business involves a high degree of risk. Before making an investment decision, you should carefully consider the information we include in this Quarterly Report on Form 10-Q, including our condensed consolidated financial statements and related notes; the additional information in the other reports we file with the Securities and Exchange Commission; and the risks described in our Annual Report on Form 10-K for the year ended December 31, 2018. These risks may

result in material harm to our business and our financial condition and results of operations. If a material, adverse event were to occur, the market price of our common stock may decline and you could lose part or all of your investment.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

(a) Sales of Unregistered Securities.

During the three month period ended June 30, 2019, the Company granted options to employees and directors to purchase an aggregate of 8,600 shares of common stock at a weighted-average exercise price of $37.78 per share. Once vested, the options are exercisable for a period of ten years from the grant date. These issuances are exempt from registration in reliance on Section 4(a)(2) of the Securities Act as transactions not involving a public offering.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

None

Item 5. Other Information

None

Item 6. Exhibits

The following exhibits are filed or furnished as part of this Quarterly Report on Form 10-Q:

31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a).
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a).
32.1	Certification of 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 Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following financial information from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, formatted in Inline XBRL: (i) Cover Page, (ii) Consolidated Condensed Statements of Income, (iii) Consolidated Condensed Statements of Comprehensive Income, (iv) Consolidated Condensed Balance Sheets, (v) Consolidated Condensed Statements of Shareholders' Equity, (vi) Consolidated Condensed Statements of Cash Flows, and (vii) the Notes to Consolidated Condensed Financial Statements, tagged in summary and detail.
104	The cover page of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, formatted in Inline XBRL (included with the Exhibit 101 attachments).

EXHIBIT INDEX

Number	Description
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104	The cover page of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2019, formatted in Inline XBRL (included with the Exhibit 101 attachments).

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.

SUPERNUS PHARMACEUTICALS, INC.

DATED: August 9, 2019

By: /s/ Jack A. Khattar
Jack A. Khattar
President, Secretary and Chief Executive Officer

DATED: August 9, 2019

By: /s/ Gregory S. Patrick
Gregory S. Patrick
Senior Vice President and Chief Financial Officer

EXHIBIT 31.1

CERTIFICATION

I, Jack A. Khattar, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Supernus 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

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

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

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

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

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

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

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

Date: August 9, 2019

By: /s/ Jack A. Khattar
Jack A. Khattar
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, Gregory S. Patrick, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Supernus 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

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

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

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

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

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

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

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

Date: August 9, 2019

By: /s/ Gregory S. Patrick
Gregory S. Patrick
Senior Vice President and Chief Financial Officer

EXHIBIT 32.1

SUPERNUS PHARMACEUTICALS, INC.

CERTIFICATION PURSUANT TO

18 U.S.C. sec. 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Supernus Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jack A. Khattar, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. sec. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Date: August 9, 2019

By: /s/ Jack A. Khattar

Jack A. Khattar
President and Chief Executive Officer

EXHIBIT 32.2

SUPERNUS PHARMACEUTICALS, INC.

CERTIFICATION PURSUANT TO

18 U.S.C. sec. 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Supernus Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gregory S. Patrick, Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. sec. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Date: August 9, 2019

By: /s/ Gregory S. Patrick

Gregory S. Patrick
Senior Vice President and Chief Financial Officer