Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-Q

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

for the quarterly period ended June 30, 2019

OR

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

COMMISSION FILE NUMBER: 001-37590

CERECOR INC.

(Exact name of registrant as specified in its charter)

Delaware	**45-0705648**
(State of incorporation)	(I.R.S. Employer Identification No.)
540 Gaither Road, Suite 400 **Rockville, Maryland 20850**	**(410) 522-8707**
(Address of principal executive offices)	(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, $0.001 par value	CERC	Nasdaq Capital Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

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

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☑	Smaller reporting company ☑
Emerging growth company ☑	

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes☐ No ☑

As of August 5, 2019, the registrant had 42,906,744 shares of common stock outstanding.

CERECOR INC.

FORM 10-Q

For the Quarter Ended June 30, 2019

TABLE OF CONTENTS

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

CERECOR INC. and SUBSIDIARIES

Condensed Consolidated Balance Sheets

	June 30, 2019 (unaudited)	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 9,386,865	$ 10,646,301
Accounts receivable, net	2,860,288	3,157,555
Other receivables	143,011	5,469,011
Inventory, net	617,609	1,110,780
Prepaid expenses and other current assets	865,062	1,529,516
Restricted cash, current portion	26,265	18,730
Total current assets	13,899,100	21,931,893
Property and equipment, net	1,525,846	586,512
Intangible assets, net	27,632,653	31,239,468
Goodwill	16,411,123	16,411,123
Restricted cash, net of current portion	152,162	81,725
Total assets	$ 59,620,884	$ 70,250,721
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 1,445,475	$ 1,446,141
Accrued expenses and other current liabilities	13,347,741	19,731,373
Income taxes payable	1,392,474	2,032,258
Long-term debt, current portion	1,050,000	1,050,000
Contingent consideration, current portion	1,529,386	1,956,807
Total current liabilities	18,765,076	26,216,579
Long-term debt, net of current portion	14,279,198	14,327,882
Contingent consideration, net of current portion	6,329,975	7,093,757
Deferred tax liability, net	88,108	69,238
License obligations	1,250,000	1,250,000
Other long-term liabilities	1,212,268	385,517
Total liabilities	41,924,625	49,342,973
Stockholders' equity:		
Common stock—$0.001 par value; 200,000,000 shares authorized at June 30, 2019 and December 31, 2018; 42,898,251 and 40,804,189 shares issued and outstanding at June 30, 2019 and December 31, 2018, respectively	42,898	40,804
Preferred stock—$0.001 par value; 5,000,000 shares authorized at June 30, 2019 and December 31, 2018; 2,857,143 shares issued and outstanding at June 30, 2019 and December 31, 2018	2,857	2,857
Additional paid-in capital	129,545,721	119,082,157
Accumulated deficit	(111,895,217)	(98,218,070)
Total stockholders' equity	17,696,259	20,907,748
Total liabilities and stockholders' equity	$ 59,620,884	$ 70,250,721

See accompanying notes to the condensed consolidated financial statements.

CERECOR INC. and SUBSIDIARIES

Condensed Consolidated Statements of Operations (Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Revenues				
Product revenue, net	$ 4,449,404	$ 4,710,919	$ 9,860,847	$ 8,971,038
Sales force revenue	—	74,219	—	296,875
Total revenues, net	4,449,404	4,785,138	9,860,847	9,267,913
Operating expenses:				
Cost of product sales	(141,822)	1,422,957	1,806,070	2,286,582
Research and development	3,712,596	1,082,698	7,113,785	2,732,475
General and administrative	2,382,007	3,041,955	5,098,990	5,949,318
Sales and marketing	2,936,851	2,042,015	6,045,753	3,578,378
Amortization expense	1,078,847	1,233,035	2,157,694	2,250,444
Impairment of intangible assets	1,449,121	1,701,875	1,449,121	1,701,875
Change in fair value of contingent consideration	(992,350)	13,239	(811,948)	276,008
Total operating expenses	10,425,250	10,537,774	22,859,465	18,775,080
Loss from operations	(5,975,846)	(5,752,636)	(12,998,618)	(9,507,167)
Other (expense) income:				
Change in fair value of warrant liability and unit purchase option liability	18,910	3,918	(28,668)	(19,332)
Other (expense) income, net	—	—	(9,400)	18,654
Interest expense, net	(199,746)	(242,407)	(407,685)	(342,810)
Total other expense, net	(180,836)	(238,489)	(445,753)	(343,488)
Net loss before taxes	(6,156,682)	(5,991,125)	(13,444,371)	(9,850,655)
Income tax expense	66,417	16,351	232,776	39,664
Net loss	$ (6,223,099)	$ (6,007,476)	$ (13,677,147)	$ (9,890,319)
Net loss per share of common stock, basic and diluted	$ (0.11)	$ (0.19)	$ (0.24)	$ (0.31)
Net loss per share of preferred stock, basic and diluted	$ (0.55)	$ —	$ (1.21)	$ —

See accompanying notes to the condensed consolidated unaudited financial statements.

CERECOR INC. and SUBSIDIARIES
Condensed Consolidated Statements of Cash Flows (Unaudited)

	Six Months Ended June 30,	
	2019	**2018**
Operating activities		
Net loss	$ (13,677,147)	$ (9,890,319)
Adjustments to reconcile net loss provided by (used in) operating activities:		
Depreciation and amortization	2,203,423	2,262,570
Impairment of intangible assets	1,449,121	1,701,875
Stock-based compensation	1,123,402	851,255
Deferred taxes	18,870	23,764
Amortization of inventory fair value associated with acquisition of TRx and Avadel's pediatric products	40,240	177,238
Non-cash interest expense	—	351,566
Change in fair value of warrant liability and unit purchase option liability	28,668	19,333
Change in fair value of contingent consideration	(811,948)	276,008
Changes in assets and liabilities:		
Accounts receivable, net	297,267	(373,299)
Other receivables	5,326,000	339,221
Inventory, net	452,931	(617,619)
Prepaid expenses and other assets	664,454	318,771
Escrowed cash receivable	—	(5,287)
Accounts payable	(666)	1,640,959
Income taxes payable	(639,784)	(88,100)
Accrued expenses and other liabilities	(6,313,686)	2,397,968
Net cash used in operating activities	(9,838,855)	(614,096)
Investing activities		
Acquisition of business	—	(1)
Purchase of property and equipment	(256,926)	(25,931)
Net cash used in investing activities	(256,926)	(25,932)
Financing activities		
Proceeds from exercise of stock options and warrants	256,816	390,473
Proceeds from sales of common stock under employee stock purchase plan	127,537	8,400
Restricted stock units withheld for taxes	(18,057)	—
Proceeds from underwritten public offering, net	8,975,960	—
Payment of contingent consideration	(379,255)	—
Payment of long-term debt	(48,684)	—
Net cash provided by financing activities	8,914,317	398,873
Decrease in cash, cash equivalents and restricted cash	(1,181,464)	(241,155)
Cash, cash equivalents, and restricted cash at beginning of period	10,746,756	2,605,499
Cash, cash equivalents, and restricted cash at end of period	$ 9,565,292	$ 2,364,344
Supplemental disclosures of cash flow information		
Cash paid for interest	$ 525,000	$ —
Cash paid for taxes	$ 852,025	$ —
Supplemental disclosures of non-cash activities		
Leased asset obtained in exchange for new operating lease liability	$ 743,025	$ —
Debt assumed in Avadel Pediatric Products acquisition	$ —	$ (15,075,000)

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

	June 30, 2019	June 30, 2018
Cash and cash equivalents	$ 9,386,865	$ 2,179,775
Restricted cash, current	26,265	9,527
Restricted cash, non-current	152,162	175,042
Total cash, cash equivalents and restricted cash	$ 9,565,292	$ 2,364,344

See accompanying notes to the condensed consolidated financial statements.

CERECOR INC. and SUBSIDIARIES

Condensed Consolidated Statements of Changes in Stockholders' Equity (Unaudited)

	Common stock		Preferred Stock		Additional paid-in	Contingently issuable stock	Accumulated	Total stockholders'
	Shares	Amount	Shares	Amount	capital	Amount	deficit	equity
Three Months Ended June 30, 2018:								
Balance, March 31, 2018	31,410,335	$ 31,411	—	$ —	$83,944,208	$ 2,655,464	$ (62,048,103)	$ 24,582,980
Issuance of contingently issuable shares in acquisition of TRx	2,349,968	2,350	—	—	2,653,114	(2,655,464)	—	—
Exercise of stock options and warrants	10,383	11	—	—	27,071	—	—	27,082
Shares purchased through employee stock purchase plan	20,000	20	—	—	8,380	—	—	8,400
Stock-based compensation	—	—	—	—	608,431	—	—	608,431
Net loss	—	—	—	—	—	—	(6,007,476)	(6,007,476)
Balance, June 30, 2018	33,790,686	$ 33,792	—	$ —	$87,241,204	$ —	$ (68,055,579)	$ 19,219,417
Six Months Ended June 30, 2018:								
Balance, December 31, 2017	31,266,989	$ 31,268	—	$ —	$83,338,136	$ 2,655,464	$ (58,165,260)	$ 27,859,608
Issuance of contingently issuable shares in acquisition of TRx	2,349,968	2,350	—	—	2,653,114	(2,655,464)	—	—
Exercise of stock options and warrants	153,729	154	—	—	390,319	—	—	390,473
Shares purchased through employee stock purchase plan	20,000	20	—	—	8,380	—	—	8,400
Stock-based compensation	—	—	—	—	851,255	—	—	851,255
Net loss	—	—	—	—	—	—	(9,890,319)	(9,890,319)
Balance, June 30, 2018	33,790,686	$ 33,792	—	$ —	$87,241,204	$ —	$ (68,055,579)	$ 19,219,417

	Common stock		Preferred Stock		Additional paid-in	Contingently issuable stock	Accumulated	Total stockholders'
	Shares	Amount	Shares	Amount	capital	Amount	deficit	equity
Three Months Ended June 30, 2019								
Balance, March 31, 2019	42,753,659	$ 42,754	2,857,143	$ 2,857	$128,747,037	$ —	$ (105,672,118)	$ 23,120,530
Exercise of stock options and warrants	43,125	43	—	—	162,596	—	—	162,639
Restricted Stock Units vested during period	61,250	61	—	—	(61)	—	—	—
Restricted Stock Units withheld for taxes	(3,723)	(4)	—	—	(18,053)	—	—	(18,057)
Shares purchased through employee stock purchase plan	43,940	44	—	—	127,493	—	—	127,537
Stock-based compensation	—	—	—	—	526,709	—	—	526,709
Net loss	—	—	—	—	—	—	(6,223,099)	(6,223,099)
Balance, June 30, 2019	42,898,251	$ 42,898	2,857,143	$ 2,857	$129,545,721	$ —	$ (111,895,217)	$ 17,696,259
Six Months Ended June 30, 2019								
Balance, December 31, 2018	40,804,189	$ 40,804	2,857,143	$ 2,857	$119,082,157	$ —	$ (98,218,070)	$ 20,907,748
Issuance of shares of common stock in underwritten public offering, net of offering costs	1,818,182	1,818	—	—	8,974,142	—	—	8,975,960
Exercise of stock options and warrants	74,413	74	—	—	256,742	—	—	256,816
Restricted Stock Units vested during period	161,250	162	—	—	(162)	—	—	—
Restricted Stock Units withheld for taxes	(3,723)	(4)	—	—	(18,053)	—	—	(18,057)
Shares purchased through employee stock purchase plan	43,940	44	—	—	127,493	—	—	127,537
Stock-based compensation	—	—	—	—	1,123,402	—	—	1,123,402
Net loss	—	—	—	—	—	—	(13,677,147)	(13,677,147)
Balance, June 30, 2019	42,898,251	$ 42,898	2,857,143	$ 2,857	$129,545,721	$ —	$ (111,895,217)	$ 17,696,259

See accompanying notes to the condensed consolidated financial statements.

CERECOR INC. and SUBSIDIARIES

Notes to Unaudited Condensed Consolidated Financial Statements

1. Business

Cerecor Inc. (the Company or “Cerecor”) is a fully integrated biopharmaceutical company with commercial operations and research and development capabilities. The Company is building a pipeline of innovative therapies in orphan diseases, neurology and pediatric healthcare. The Company's pediatric orphan disease pipeline is led by CERC-801, CERC-802 and CERC-803. All three compounds are therapies for inborn errors of metabolism, specifically disorders known as Congenital Disorders of Glycosylation ("CDGs") by means of substrate replacement therapy. The U.S. Food and Drug Administration ("FDA") has granted Rare Pediatric Disease Designation ("RPDD") and Orphan Drug Designation ("ODD") to all three CERC-800 compounds, thus qualifying the Company to receive a Priority Review Voucher ("PRV") upon approval of a new drug application ("NDA"). The PRV may be sold or transferred an unlimited number of times. The Company plans to leverage the 505(b)(2) NDA pathway for all three compounds to accelerate development and approval. The Company is also in the process of developing one other preclinical pediatric orphan rare disease compound, CERC-913, for the treatment of mitochondrial DNA Depletion Syndrome. The Company's neurology pipeline is led by CERC-301, a Glutamate NR2B selective, NMDA Receptor antagonist, which Cerecor is currently developing as a novel treatment for orthostatic hypotension ("OH"). The Company is also developing CERC-406, a CNS-targeted COMT inhibitor for Parkinson's Disease.

The Company also has a diverse portfolio of marketed products. Our marketed products are led by our prescribed dietary supplements and prescribed drugs. Our prescribed dietary supplements include Poly-Vi-Flor® and Tri-Vi-Flor™ which are prescription vitamin and fluoride supplements used in infants and children to treat or prevent deficiency of essential vitamins and fluoride. The Company also markets a number of prescription drugs that treat a range of pediatric diseases, disorders and conditions. Cerecor's prescription drugs include Millipred®, Karbinal™ ER, AcipHex® Sprinkle™ and Cefaclor for Oral Suspension.

Cerecor was incorporated in 2011 and commenced operations in 2011 and completed an initial public offering in October 2015.

On November 17, 2017, the Company acquired TRx Pharmaceuticals, LLC (“TRx”) and its wholly-owned subsidiaries (see "TRx Acquisition" inNote 5 below for a description of this transaction).

On February 16, 2018, Cerecor acquired all rights to Avadel Pharmaceuticals PLC’s (“Avadel”) marketed pediatric products (the “Acquired Products”) in exchange for Cerecor assuming certain financial obligations of Avadel (see "Avadel Pediatric Products Acquisition" in Note 5 below for a description of this transaction).

On September 25, 2018, the Company acquired Ichorion Therapeutics, Inc., a privately-held biopharmaceutical company focused on developing treatments and increasing awareness of inherited metabolic disorders known as CDGs (see "Ichorion Asset Acquisition" in Note 5 below for a description of this transaction).

Liquidity

In order to meet its cash flow needs, the Company applies a disciplined decision-making methodology as it evaluates the optimal allocation of the Company's resources between investing in the Company's current commercial product line, the Company's development portfolio and acquisitions or in-licensing of new assets. For the six months ended June 30, 2019, Cerecor generated a net loss of $13.7 million and negative cash flow from operations of $9.8 million. As of June 30, 2019, Cerecor had an accumulated deficit of $111.9 million and a balance of $9.4 million in cash and cash equivalents. During the first quarter of 2019, the Company closed an underwritten public offering of common stock for 1,818,182 shares of common stock of the Company, at a price to the public of $5.50 per share ("public price"). Armistice Capital Master Fund Ltd. ("Armistice"), our largest stockholder, participated in the offering by purchasing 363,637 shares of common stock of the Company from the underwriter at the public price. Cerecor director Steven J. Boyd is Armistice's Chief Investment Officer. The net proceeds of the offering were approximately $9.0 million (see "Common Stock Offering" in Note 9 below for description of the transaction).

The Company plans to use cash and the anticipated cash flows from the Company's existing product sales to offset costs related to its neurology programs, pediatric rare disease programs, business development, costs associated with its organizational infrastructure, and debt principal and interest payments. Cerecor expects to continue to incur significant expenses and operating losses for the immediate future as it continues to invest in the Company's pipeline assets. Our ability to achieve and maintain profitability in

the future is dependent on, among other things, the development, regulatory approval, and commercialization of our new product candidates and achieving a level of revenues from our existing product sales adequate to support our cost structure, which includes significant investment in our pipeline assets.

The Company believes it will require additional financing to continue to execute its clinical development strategy and fund future operations. The Company plans to meet its capital requirements through operating cash flows from product sales and some combination of equity or debt financings, collaborations, out-licensing arrangements, strategic alliances, federal and private grants, marketing, distribution or licensing arrangements or the sale of current or future assets. If the Company is not able to secure adequate additional funding, the Company may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible or suspend or curtail planned programs. If the Company raises additional funds through collaborations, strategic alliances or licensing arrangements with third parties, the Company may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates.

Our plan to aggressively develop our pipeline will require substantial cash in excess of what the Company expects our current commercial operations to generate. However, the Company expects that our existing cash and cash equivalents, together with anticipated revenue, will enable us to fund our operating expenses, capital expenditure requirements, and other non-operating cash payments, such as fixed quarterly payments on our outstanding debt balances, through at least August 2020.

2. Basis of Presentation and Significant Accounting Policies

Basis of Presentation

The Company’s unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (“GAAP”). Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification (“ASC”) and Accounting Standards Updates (“ASU”) of the Financial Accounting Standards Board (“FASB”).

In the opinion of management, the accompanying unaudited condensed consolidated financial statements include all adjustments, consisting of normal recurring adjustments, which are necessary to present fairly the Company’s financial position, results of operations, and cash flows. The condensed consolidated balance sheet at December 31, 2018 has been derived from audited financial statements at that date. The interim results of operations are not necessarily indicative of the results that may occur for the full fiscal year. Certain information and footnote disclosure normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to instructions, rules, and regulations prescribed by the United States Securities and Exchange Commission (“SEC”). Certain prior period amounts have been reclassified to conform to the current year presentation, as described below.

The Company believes that the disclosures provided herein are adequate to make the information presented not misleading when these unaudited condensed consolidated financial statements are read in conjunction with the December 31, 2018 audited consolidated financial statements.

Reclassification

During the fourth quarter of 2018, the Company concluded that going forward it would include change in fair value of contingent consideration within its own stand-alone line in operating expenses in the Company's statements of operations. The Company has reclassified $13,239 and $276,008 from other expenses to operating expenses in the three and six months ended June 30, 2018, respectively, on the statement of operations to conform with current period presentation.

Significant Accounting Policies

During the six months ended June 30, 2019, there were no significant changes to the Company’s summary of significant accounting policies contained in the Company’s Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on March 18, 2019 and amended on April 23, 2019, except for the recently adopted accounting standards described below.

The following significant accounting policy was updated in 2019 to reflect changes upon our adoption of ASU No. 2016-02*Leases* (Topic 842) ("ASU 2016-02").

Leases

The Company determines if an arrangement is a lease at inception. If an arrangement contains a lease, the Company performs a lease classification test to determine if the lease is an operating lease or a finance lease. The Company has identified one operating lease, which is for its corporate headquarters. Right-of-use ("ROU") assets represent the right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease liabilities are recognized on the commencement date of the lease based on the present value of the future lease payments over the lease term and are included in other long-term liabilities on our condensed consolidated balance sheet. ROU assets are valued at the initial measurement of the lease liability, plus any indirect costs or rent prepayments, and reduced by any lease incentives and any deferred lease payments. Operating ROU assets are recorded in property and equipment, net on the condensed consolidated balance sheet and are amortized over the lease term. To determine the present value of lease payments on lease commencement, we use the implicit rate when readily determinable, however as most leases do not provide an implicit rate, we use our incremental borrowing rate based on information available at commencement date. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Furthermore, the Company has elected the practical expedient to account for the lease and non-lease components as a single lease component for the leased property asset class. Lease expense is recognized on a straight-line basis over the life of the lease and is included within general and administrative expenses.

Recently Adopted Accounting Pronouncements

Adoption of ASC 842

In February 2016, FASB issued ASU 2016-02, which revises existing practice related to accounting for leases under ASC 840,*Leases* (“ASC 840”) for both lessees and lessors. The new guidance in ASU 2016-02 requires lessees to recognize a ROU asset and a lease liability for nearly all leases (other than leases that meet the definition of a short-term lease). The lease liability will be equal to the present value of lease payments and the right-of-use asset will be based on the lease liability, subject to adjustment such as for initial direct costs. For income statement purposes, the new standard retains a dual model similar to ASC 840, requiring leases to be classified as either operating leases or finance leases. For lessees, operating leases will result in straight-line expense (similar to current accounting by lessees for operating leases under ASC 840) while finance leases will result in a front-loaded expense pattern (similar to current accounting by lessees for capital leases under ASC 840).

The Company adopted the standard using the modified retrospective transition method on its effective date of January 1, 2019 and therefore did not adjust prior comparative periods as permitted by the codification improvements issued by FASB in July 2018. Additionally, the Company elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allows the Company to carryforward the historical lease classification. As a result of the standard, the Company recorded a lease liability of $1.2 million and a ROU asset of $0.7 million, which is equal to the initial measurement of the lease liability reduced by the unamortized balance of lease incentive received and deferred rent. There was no material impact to our condensed consolidated income statement (see Note 12 below for more information).

Other Adopted Accounting Pronouncements

SEC Simplification

In August 2018, the SEC adopted the final rule under SEC Release No. 33-10532 Disclosure Update and Simplification, to eliminate or modify certain disclosure rules that are redundant, outdated, or duplicative of GAAP or other regulatory requirements. Among other changes, the amendments provide that disclosure requirements related to the analysis of stockholders' equity are expanded for interim financial statements. An analysis of the changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement. The Company began providing this disclosure in the first quarter of 2019 within a separate statement.

New Accounting Pronouncements

Financial Instruments - Credit Losses

In June 2016, the FASB issued ASU No. 2016-13, “Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.” (ASU 2016-13) This guidance applies to all entities and impacts how entities account for credit losses for most financial assets and other instruments. For available-for-sale debt securities, entities will be required to recognize an allowance for credit losses rather than a reduction to the carrying value of the asset. For trade receivables, loans and held-to-maturity debt securities, entities will be required to estimate lifetime expected credit losses. This guidance is effective for fiscal years beginning after December 15, 2019 and interim periods therein. Early adoption is permitted for annual periods beginning after

December 15, 2018 and interim periods therein. The Company does not expect that the adoption of this new standard will have a material impact on the Company's disclosures.

Fair Value Measurements

In August 2018 the FASB issued ASU No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement. This new standard modifies certain disclosure requirements on fair value measurements. This new standard will be effective for the Company on January 1, 2020. The Company is currently evaluating the potential impact of the adoption of this standard on its financial statements.

3. Revenue from Contracts with Customers

The Company generates substantially all of its revenue from sales of prescription pharmaceutical products to its customers. The following table presents net revenues disaggregated by type (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Prescribed dietary supplements	$ 1,800	$ 1,926	$ 3,591	$ 3,670
Prescription drugs	$ 2,649	$ 2,785	$ 6,270	$ 5,301
Sales force revenue	—	74	—	297
Total revenue	$ 4,449	$ 4,785	$ 9,861	$ 9,268

As is typical in the pharmaceutical industry, the Company sells its prescription pharmaceutical products (which include prescribed dietary supplements and prescription drugs) in the United States primarily through wholesale distributors and a specialty contracted pharmacy. Wholesale distributors account for substantially all of the Company's net product revenues and trade receivables. In addition, the Company earns revenue from sales of its prescription pharmaceutical products directly to retail pharmacies. For the three months ended June 30, 2019, the Company's three largest customers accounted for approximately 38%, 27%, and 26% of the Company's total net product revenues from sale of prescription pharmaceutical products. For the six months ended June 30, 2019, the Company's three largest customers accounted for approximately 37%, 30%, and 25% of the Company's total net product revenues from sale of prescription pharmaceutical products.

4. Net Loss Per Share

The Company computes earnings per share ("EPS") using the two-class method. The two-class method of computing EPS is an earnings allocation formula that determines EPS for common stock and any participating securities according to dividends declared and participation rights in undistributed earnings. The Company has two classes of stock outstanding, common stock and preferred stock. The preferred stock was issued in the fourth quarter of 2018 upon Armistice exercising preferred stock warrants to acquire an aggregate of 2,857,143 shares of the Series B Convertible Preferred Stock ("convertible preferred stock"). The convertible preferred stock has the same rights and preferences as common stock other than being non-voting and convertible to shares of common stock on a 1-to-5 ratio.

Under the two-class method, the convertible preferred stock is considered a separate class of stock for EPS purposes and therefore basic and diluted EPS is provided below for both common stock and preferred stock. EPS for common stock and EPS for preferred stock is computed by dividing the sum of distributed earnings and undistributed earnings for each class of stock by the weighted average number of shares outstanding for each class of stock for the period. In applying the two-class method, undistributed earnings are allocated to common stock and preferred stock based on the weighted average shares outstanding during the period, which assumes the convertible preferred stock has been converted to common stock.

Diluted net (loss) income per share includes the potential dilutive effect of common stock equivalents as if such securities were converted or exercised during the period, when the effect is dilutive. Common stock equivalents include: (i) outstanding stock options and restricted stock units, which are included under the "treasury stock method" when dilutive, (ii) common stock to be issued upon the assumed conversion of the Company's unit purchase option (the "UPO") shares, which are included under the "if-converted method" when dilutive; (iii) prior to issuance, the contingently issuable shares in the TRx acquisition, if contingencies would have been satisfied if the end of the contingency period were as of the balance sheet date under the "if-converted method" when dilutive; and (iv) common stock to be issued upon the exercise of outstanding warrants, which are included under the "treasury stock method" when dilutive. Because

the impact of these items is generally anti-dilutive during periods of net loss, there is no difference between basic and diluted loss per common share for periods with net losses. In periods of net loss, losses are allocated to the participating security only if the security has not only the right to participate in earnings, but also a contractual obligation to share in the Company's losses.

The following table sets forth the computation of basic and diluted net loss per share of common stock and preferred stock for the three and six months ended June 30, 2019 and 2018, which includes both classes of participating securities:

	Three Months Ended June 30,			
	2019		2018	
	Common stock	Preferred stock	Common stock	Preferred stock
Net loss per share, basic and diluted				
Numerator:				
Allocation of undistributed net loss	$ (4,665,795)	$ (1,557,304)	$ (6,007,476)	$ —
Denominator:				
Weighted average shares	42,801,045	2,857,143	32,245,281	—
Basic and diluted net loss per share	$ (0.11)	$ (0.55)	$ (0.19)	$ —

	Six Months Ended June 30,			
	2019		2018	
	Common stock	Preferred stock	Common stock	Preferred stock
Net loss per share, basic and diluted				
Numerator:				
Allocation of undistributed net loss	$ (10,209,000)	$ (3,468,147)	$ (9,890,319)	$ —
Denominator:				
Weighted average shares	42,052,100	2,857,143	31,783,875	—
Basic and diluted net loss per share	$ (0.24)	$ (1.21)	$ (0.31)	$ —

The following outstanding securities at June 30, 2019 and 2018 have been excluded from the computation of diluted weighted shares outstanding, as they could have been anti-dilutive:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Stock options	5,476,547	4,104,574	5,476,547	4,104,574
Warrants on common stock	4,024,708	18,986,559	4,024,708	18,986,559
Restricted Stock Units	278,750	400,000	278,750	400,000
Underwriters' unit purchase option	40,000	40,000	40,000	40,000

5. Acquisitions

Asset Acquisitions

Ichorion Asset Acquisition

On September 24, 2018, the Company entered into, and subsequently consummated the transactions contemplated by, an agreement and plan of merger (the "Merger Agreement") by and among the Company and Ichorion Therapeutics, Inc., a Delaware corporation (the “Ichorion Asset Acquisition”), with Ichorion surviving as a wholly owned subsidiary of the Company. The consideration for the Ichorion Asset Acquisition consisted of approximately 5.8 million shares of the Company’s common stock, par value $0.001 per share, as adjusted for Estimated Working Capital as defined in the Merger Agreement. The shares of common stock issued as part of the acquisition may not be resold until January 2020. Consideration for the Ichorion Asset Acquisition includes certain development milestones worth up to an additional $15.0 million, payable either in shares of the Company's common stock or in cash, at the election of the Company.

The fair value of the common stock shares transferred at closing was approximately $20.0 million based on the Company's stock price close on September 24, 2018 and offset by an estimated discount for lack of marketability calculated using guideline public company volatility for comparable companies. The assets acquired consisted primarily of $18.7 million of IPR&D, $1.6 million of cash and $0.2 million assembled workforce. The Company recorded this transaction as an asset purchase as opposed to a business combination as management concluded that substantially all of the value received was related to one group of similar identifiable assets which was the IPR&D for the three preclinical therapies for inherited metabolic disorders known as CDGs (CERC-801, CERC-802 and CERC-803). The Company has considered these assets similar due to similarities in the risks for development, compound type, stage of development, regulatory pathway, patient population and economics of commercialization. The fair value of the IPR&D was immediately recognized as Acquired In-Process Research and Development expense as the IPR&D asset has no other alternate use due to the stage of development. The $0.2 million of transaction costs incurred were recorded to acquired IPR&D expense. The assembled workforce asset recorded to intangible assets will be amortized over an estimated useful life of two years.

The contingent consideration of up to an additional $15.0 million relates to three future development milestones. The first milestone is the first product being approved for marketing by the FDA on or prior to December 31, 2021. If this milestone is met, the Company is required to make a milestone payment of $6.0 million. The second milestone is the second product being approved for marketing by the FDA on or prior to December 31, 2021. If this milestone is met, the Company is required to make a milestone payment of $5.0 million. The third milestone is a protide molecule being approved by the FDA on or prior to December 31, 2023. If this milestone is met, the Company is required to make a milestone payment of $4.0 million. All milestones are payable in either shares of the Company's common stock or cash, at the election of the Company.

The contingent consideration related to the development milestones will be recognized if and when such milestones are probable and can be reasonably estimated. As of June 30, 2019, no contingent consideration related to the development milestone has been recognized. The Company will continue to monitor the development milestones at each reporting period.

Avadel Pediatric Products Acquisition

On February 16, 2018, the Company entered into an Asset Purchase Agreement (the “Purchase Agreement”) with Avadel US Holdings, Inc., Avadel Pharmaceuticals (USA), Inc., Avadel Pediatrics, Inc., Avadel Therapeutics, LLC and Avadel Pharmaceuticals PLC (collectively, the “Sellers”) to purchase and acquire all rights to the Sellers’ pediatric products. Total consideration transferred to the Sellers consisted of: (1) a cash payment of one dollar, (2) the Company's assumption of existing seller debt due in January 2021 with a fair value of $15.1 million, and (3) contingent consideration relating to royalty obligations through February 2026 with a fair value at acquisition date of approximately $7.9 million. As a result of the Avadel pediatric products acquisition, the Company recorded goodwill of $3.8 million, which is deductible over 15 years for income tax purposes.

The transaction was accounted for as a business combination under the acquisition method of accounting. Accordingly, the tangible and identifiable intangible assets acquired and liabilities assumed were recorded at fair value as of the date of acquisition, with the remaining purchase price recorded as goodwill. The goodwill recognized was attributable primarily to strategic opportunities related to an expanded commercial footprint and diversified pediatric product portfolio that is expected to provide revenue and cost synergies.

During the second quarter of 2018, the Company identified and recorded measurement period adjustments to the preliminary purchase price allocation. These adjustments are reflected in the tables below. The measurement period adjustments were the result of additional analysis performed and information identified during the second quarter of 2018 based on facts and circumstances that existed as of the purchase date. There were no additional measurement adjustments recorded in 2018.

The following table summarizes the preliminary fair values of the assets acquired and liabilities assumed at the date of acquisition and as adjusted for measurement period adjustments identified during the second quarter of 2018:

	At February 16, 2018 (preliminary)	Measurement Period Adjustments	At February 16, 2018 (as adjusted)
Inventory	$ 2,549,000	$ (1,831,000)	$ 718,000
Prepaid assets	—	570,000	570,000
Intangible assets	16,453,000	1,838,000	18,291,000
Accrued expenses	—	(362,000)	(362,000)
Fair value of debt assumed	(15,272,303)	197,303	(15,075,000)
Fair value of contingent consideration	(7,875,165)	(44,835)	(7,920,000)
Total net liabilities assumed	(4,145,468)	367,468	(3,778,000)
Consideration exchanged	241,000	(240,999)	1
Goodwill	$ 4,386,468	$ (608,467)	$ 3,778,001

The purchase price allocation related to the acquisition of Avadel's pediatric products was finalized in 2018. The fair values of intangible assets, including marketing rights, licenses and developed technology, were determined using variations of the income approach. Varying discount rates were also applied to the projected net cash flows. The Company believes the assumptions are representative of those a market participant would use in estimating fair value. The fair value of intangible assets both as of the date of acquisition and as adjusted by measurement period adjustments identified during the second quarter of 2018 includes the following:

	At February 16, 2018 (preliminary)	Measurement Period Adjustments	At February 16, 2018 (as adjusted)
Acquired Product Marketing Rights - Karbinal	$ 6,221,000	$ (21,000)	$ 6,200,000
Acquired Product Marketing Rights - AcipHex	2,520,000	283,000	2,803,000
Acquired Product Marketing Rights - Cefaclor	6,291,000	1,320,000	7,611,000
Acquired Developed Technology - Flexichamber	1,131,000	546,000	1,677,000
Acquired IPR&D - LiquiTime formulations	290,000	(290,000)	—
Total	**$ 16,453,000**	**$ 1,838,000**	**$ 18,291,000**

Subsequent to the finalization of the purchase price allocation related to the acquisition of Avadel's pediatric products, during thesecond quarter of 2019, the Company made a strategic decision to eliminate sales force efforts related to selling Flexichamber (other than the limited inventory currently on hand). As a result of this decision, paired with significant deviations from forecasted sales, management identified an impairment indicator for Flexichamber during the second quarter of 2019. Accordingly, the Company performed a test for recoverability and concluded that the sum of its estimated future undiscounted cash flows was less than its carrying value of $1.4 million. Management then measured the impairment loss by calculating the excess of Flexichamber's carrying amount over its fair value. Management determined that due to the absence of future material cash flows that the fair value of Flexichamber as of June 30, 2019, which is considered a Level 3 nonrecurring fair value measurement, was $0. Accordingly, a full impairment was recognized in the impairment of intangible asset line for Flexichamber in the amount of $1.4 million for the three and six months ended June 30, 2019. In addition, because the Company expects the sale of remaining inventory on hand will not generate material cash flows, the Company wrote down the existing inventory on hand as of June 30, 2019 to $0, which resulted in $0.2 million charge to cost of product sales during the three and six months ended June 30, 2019.

TRx Acquisition

On November 17, 2017, the Company entered into, and consummated the transactions contemplated by, an equity interest purchase agreement (the “TRx Purchase Agreement”) by and among the Company, TRx, Fremantle Corporation and LRS International LLC, the selling members of TRx (collectively, the “TRx Sellers”), which provided for the purchase of all of the equity and ownership interests of TRx by the Company (the "TRx Acquisition"). The consideration for the TRx Acquisition consisted of $18.9 million in cash, as adjusted for estimated working capital, estimated cash on hand, estimated indebtedness and estimated

transaction expenses, as well as 7,534,884 shares of the Company's common stock having an aggregate value on the closing date of $8.5 million (the "Equity Consideration") and certain potential contingent payments. Upon closing, the Company issued 5,184,920 shares of its common stock to the TRx Sellers. Pursuant to the TRx Purchase Agreement, the issuance of the remaining 2,349,968 shares was subject to the Company's stockholder approval. In May 2018, stockholder approval was obtained and the remaining shares were issued to the TRx Sellers. The contingent shares were initially recorded to contingently issuable shares, which is recorded within stockholder's equity and were reclassed to common stock and additional paid in capital upon issuance, on the consolidating balance sheet date. As a result of the TRx Acquisition, the Company has currently recorded goodwill of $12.6 million, of which $8.7 million was deductible for income taxes.

During the third quarter of 2018, the Company identified and recorded measurement period adjustments to our preliminary purchase price allocation that was disclosed in prior periods. These adjustments are reflected in the tables below. The measurement period adjustments were the result of an arbitration ruling discussed in further detail in Note 13, the facts and circumstances of which existed as of the acquisition date.

The following table summarizes the preliminary acquisition-date fair value of the consideration transferred at the date of acquisition both as disclosed in periods prior to the third quarter of 2018 and as adjusted for measurement period adjustments identified during the third quarter of 2018:

	At November 17, 2017 (preliminary)	Measurement Period Adjustments	At November 17, 2017 (as adjusted)
Cash	$ 18,900,000	$ —	$ 18,900,000
Common stock (including contingently issuable shares)	8,514,419	—	8,514,419
Contingent payments	2,576,633	(1,210,000)	1,366,633
Total consideration transferred	$ 29,991,052	(1,210,000)	28,781,052

The TRx Acquisition was accounted for as a business combination under the acquisition method of accounting. Accordingly, the tangible and identifiable intangible assets acquired, and liabilities assumed, were recorded at fair value as of the date of acquisition, with the remaining purchase price recorded as goodwill. The goodwill recognized is attributable primarily to strategic opportunities related to leveraging TRx's research and development, intellectual property, and processes.

The following table summarizes the preliminary fair values of the assets acquired and liabilities assumed at the date of acquisition both as disclosed in periods prior to the third quarter of 2018 and as adjusted for measurement period adjustments identified during the third quarter of 2018:

	At November 17, 2017 (preliminary)	Measurement Period Adjustments	At November 17, 2017 (as adjusted)
Fair value of assets acquired:			
Cash and cash equivalents	$ 11,068	$ —	$ 11,068
Accounts receivable, net	2,872,545	—	2,872,545
Inventory	495,777	—	495,777
Prepaid expenses and other current assets	134,281	—	134,281
Other receivables	—	2,764,515	2,764,515
Identifiable Intangible Assets:			—
Acquired product marketing rights - Metafolin	10,465,000	1,522,000	11,987,000
PAI sales and marketing agreement	2,334,000	219,000	2,553,000
Acquired product marketing rights - Millipred	4,714,000	342,000	5,056,000
Acquired product marketing rights - Ulesfia	555,000	(555,000)	—
Total assets acquired	21,581,671	4,292,515	25,874,186
Fair value of liabilities assumed:			
Accounts payable	192,706	—	192,706
Accrued expenses and other current liabilities	4,850,422	3,764,515	8,614,937
Deferred tax liability	839,773	78,840	918,613
Total liabilities assumed	5,882,901	3,843,355	9,726,256
Total identifiable net assets	15,698,770	449,160	16,147,930
Fair value of consideration transferred	29,991,052	(1,210,000)	28,781,052
Goodwill	$ 14,292,282	$ (1,659,160)	$ 12,633,122

The purchase price allocation related to the acquisition of TRx was finalized in 2018. The fair values of intangible assets, including marketing rights, licenses and developed technology, were determined using variations of the income approach, specifically the multi-period excess earnings method. Varying discount rates were also applied to the projected net cash flows. The Company believes the assumptions are representative of those a market participant would use in estimating fair value. The final fair value of intangible assets both as disclosed in prior periods and as adjusted by measurement period adjustments identified during the third quarter of 2018 includes the following:

	At November 17, 2017 (preliminary)	Measurement Period Adjustments	At November 17, 2017 (as adjusted)
Acquired product marketing rights - Metafolin	$ 10,465,000	$ 1,522,000	$ 11,987,000
PAI sales and marketing agreement	2,334,000	219,000	2,553,000
Acquired product marketing rights - Millipred	4,714,000	342,000	5,056,000
Acquired product marketing rights - Ulesfia	555,000	(555,000)	—
Total	**$ 18,068,000**	**$ 1,528,000**	**$ 19,596,000**

The Company received written notice to terminate the Pharmaceutical Associates, Inc. ("PAI") sales and marketing agreement in the second quarter of 2018. As a result, the Company reassessed the fair value of the PAI sales and marketing agreement on that date (a level III non-recurring fair value measurement) and concluded due to the absence of future cash flows beyond the date of termination

that the fair value was $0. An impairment charge was recognized in the second quarter of 2018 in the amount of $1.9 million, representing the remaining net book value of the PAI sales and marketing agreement intangible asset.

Pro Forma Impact of Business Combinations

The following supplemental unaudited pro forma information presents Cerecor's financial results as if the acquisition of Avadel pediatric products, which was completed on February 16, 2018, had occurred on January 1, 2018:

	Six Months Ended June 30, 2018
Total revenues, net	$ 10,972,913
Net loss	$ (10,935,919)
Basic and diluted net loss per share of common stock	$ (0.34)
Basic and diluted net loss per share of preferred stock	$ —

The above unaudited pro forma information was determined based on the historical GAAP results of Cerecor and Avadel's pediatric products. The unaudited pro forma consolidated results are provided for informational purposes only and are not necessarily indicative of what Cerecor's condensed consolidated results of operations would have been had the acquisition of Avadel's pediatric products been completed on the date indicated or what the consolidated results of operations will be in the future.

6. Fair Value Measurements

ASC No. 820, *Fair Value Measurements and Disclosures* ("ASC 820"), defines fair value as the price that would be received to sell an asset, or paid to transfer a liability, in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. The fair value standard also establishes a three-level hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability on the measurement date. The three levels are defined as follows:

- Level 1—inputs to the valuation methodology are quoted prices (unadjusted) for an identical asset or liability in an active market.
- Level 2—inputs to the valuation methodology include quoted prices for a similar asset or liability in an active market or model-derived valuations in which all significant inputs are observable for substantially the full term of the asset or liability.
- Level 3—inputs to the valuation methodology are unobservable and significant to the fair value measurement of the asset or liability.

The following table presents, for each of the fair value hierarchy levels required under ASC 820, the Company's assets and liabilities that are measured at fair value on a recurring basis:

	June 30, 2019 Fair Value Measurements Using		
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets			
Investments in money market funds*	$ 6,532,339	$ —	$ —
Liabilities			
Contingent consideration	$ —	$ —	$ 7,859,361
Warrant liability**	$ —	$ —	$ 11,520
Unit purchase option liability**	$ —	$ —	$ 27,314

	December 31, 2018 Fair Value Measurements Using		
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets			
Investments in money market funds*	$ 7,324,932	$ —	$ —
Liabilities			
Contingent consideration	$ —	$ —	$ 9,050,564
Warrant liability**	$ —	$ —	$ 2,950
Unit purchase option liability**	$ —	$ —	$ 7,216

*Investments in money market funds are reflected in cash and cash equivalents on the accompanying condensed consolidated balance sheets.

**Warrant liability and UPO liability are reflected in accrued expenses and other current liabilities on the accompanying condensed consolidated balance sheets.

As of June 30, 2019 and December 31, 2018, the Company's financial instruments included cash and cash equivalents, restricted cash, accounts receivable, accounts payable, accrued expenses and other current liabilities, short term and long-term debt, warrant liability, the underwriters' UPO liability, and contingent consideration. The carrying amounts reported in the accompanying condensed consolidated financial statements for cash and cash equivalents, restricted cash, accounts receivable, accounts payable, accrued expenses, and other current liabilities approximate their respective fair values because of the short-term nature of these accounts. The estimated fair value of the Company's long-term debt of $14.9 million as of June 30, 2019 was based on current interest rates for similar types of borrowings and is in Level 2 of the fair value hierarchy.

Level 3 Valuation

The tables presented below are a summary of changes in the fair value of the Company's Level 3 valuations for the warrant liability, UPO liability and contingent consideration for the six months ended June 30, 2019 and 2018:

	Warrant liability	Unit purchase option liability	Contingent consideration	Total
Balance at December 31, 2018	$ 2,950	$ 7,216	$ 9,050,564	$ 9,060,730
Payment of contingent consideration	—	—	(379,255)	(379,255)
Change in fair value due to Lachlan Settlement	—	—	(1,277,150)	(1,277,150)
Other changes in fair value	8,570	20,098	465,202	493,870
Balance at June 30, 2019	$ 11,520	$ 27,314	$ 7,859,361	$ 7,898,195

	Warrant liability	Unit purchase option liability	Contingent consideration	Total
Balance at December 31, 2017	$ 8,185	$ 26,991	$ 2,576,633	$ 2,611,809
Issuance of contingent consideration	—	—	7,920,000	7,920,000
Change in fair value	6,145	13,188	276,008	295,341
Balance at June 30, 2018	$ 14,330	$ 40,179	$ 10,772,641	$ 10,827,150

In 2014, the Company issued warrants to purchase 625,208 shares of convertible preferred stock. Upon the closing of our initial public offering ("IPO") in October 2015 these warrants became warrants to purchase 22,328 shares of common stock, in accordance with their terms. The warrants expire in October 2020. The warrants represent a freestanding financial instrument that is indexed to an obligation, which the Company refers to as the warrant liability. The warrant liability is marked-to-market each reporting period with the change in fair value recorded to other income, net in the accompanying statements of operations until the warrants are exercised,

expire or other facts and circumstances lead the warrant liability to be reclassified to stockholders' equity. The fair value of the warrant liability is estimated using a Black-Scholes option-pricing model. The significant assumptions used in preparing the option pricing model for valuing the warrant liability as of June 30, 2019, include (i) volatility of 50%, (ii) risk free interest rate of 1.87%, (iii) strike price of $8.40, (iv) fair value of common stock of $5.44, and (v) expected life of 1.3 years.

The underwriters' UPO was issued to the underwriters of the Company's IPO in 2015 and provides the underwriters the option to purchase up to a total of 40,000 units. The units underlying the UPO will be, immediately upon exercise, separated into shares of common stock, underwriters' Class A warrants and underwriters' Class B warrants (such warrants together referred to as the Underwriters' Warrants). The Underwriters' Warrants were warrants to purchase shares of common stock. The Class B warrants expired in April 2017 and the Class A warrants expired in October 2018, while the UPO expires in October 2020. The Company classifies the UPO as a liability, as it is a freestanding marked-to-market derivative instrument that is precluded from being classified in stockholders' equity. The UPO liability is marked-to-market each reporting period with the change in fair value recorded to other income, net in the accompanying statements of operations until the UPO is exercised, expires or other facts and circumstances lead the UPO to be reclassified to stockholders' equity. The fair value of the UPO liability is estimated using a Black-Scholes option-pricing model. The significant assumptions used in preparing the simulation model for valuing the UPO as of June 30, 2019, include (i) volatility of 50%, (ii) risk free interest rate of 1.87% , (iii) unit strike price of $7.47, (iv) fair value of underlying equity of $5.44, and (v) expected life of 1.3 years.

The Company's business acquisitions of Avadel's pediatric products and TRx (see Note 5) involve the potential for future payment of consideration that is contingent upon the achievement of operation and commercial milestones and royalty payments on future product sales. The fair value of contingent consideration was determined at the acquisition date utilizing unobservable inputs such as the estimated amount and timing of projected cash flows, the probability of success (achievement of the contingent event), and the risk-adjusted discount rate used to present value the probability-weighted cash flows. Subsequent to the acquisition date, at each reporting period, the contingent consideration liabilities are remeasured at the current fair value with changes recorded in the condensed consolidated statement of operations.

As part of the acquisition of Avadel's pediatric products, the Company will pay a 15% annual royalty on net sales of the acquired Avadel pediatric products through February 2026, up to an aggregate amount of $12.5 million. The fair value of the future royalty is the expected future value of the contingent payments discounted to a present value. The estimated fair value of the royalty payments as of June 30, 2019 was $7.9 million. The significant assumptions used in estimating the fair value of the royalty payment as of June 30, 2019 include (i) the expected net sales of the acquired Avadel pediatric products for that are subject to the 15% royalty based on the Company's net sales forecast and, (ii) the risk-adjusted discount rate of 8.11%, which is comprised of the risk-free interest rate of 1.86% and a counterparty risk of 6.25% utilized to discount the expected royalty payments. The liability is reduced by periodic payments.

The consideration for the TRx acquisition included certain potential contingent payments. First, pursuant to the TRx Purchase Agreement, the Company would have been required to pay $3.0 million to the Sellers if the gross profit related to TRx products equaled or exceeded $12.6 million in 2018. The Company did not achieve this contingent event in 2018 and therefore no value was assigned to the contingent payout as of December 31, 2018. Additionally, the Company may have been required to pay the following: (1) $2.0 million upon the transfer of the Ulesfia NDA to the Company ("NDA Transfer Milestone"), and (2) $2.0 million upon FDA approval of a new dosage of Ulesfia ("FDA Approval Milestone"). However, as part of the settlement the Company entered into during the second quarter of 2019 with Lachlan Pharmaceuticals, an Irish company controlled by the previous owners of TRx, among additional terms discussed in Note 13, the Company gave up its right to sell Ulesfia, except for a limited amount of inventory on hand until that inventory is sold or expired. As a result, the Settlement released the Company from the potential contingent payments related to the NDA Transfer Milestone and FDA Approval Milestone and therefore no value was assigned to the two milestones as of June 30, 2019 resulting in the Company recognizing a gain on the change of fair value of contingent consideration of $1.3 million for the three and six months ended June 30, 2019.

No other changes in valuation techniques or inputs occurred during the six months ended June 30, 2019 and 2018. No transfers of assets between Level 1 and Level 2 of the fair value measurement hierarchy occurred during the six months ended June 30, 2019 and 2018.

7. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities as of June 30, 2019 and December 31, 2018 consisted of the following:

	As of	
	June 30, 2019	December 31, 2018
Sales returns and allowances	$ 4,579,975	$ 3,972,510
Medicaid rebates	2,658,184	2,237,269
Minimum sales commitments, royalties payable, and purchase obligations	2,154,613	9,662,901
Compensation and benefits	1,974,655	1,953,065
Research and development expenses	1,132,456	278,132
Sales and marketing	627,025	1,112,378
General and administrative	182,835	235,721
Other	37,998	279,397
Total accrued expenses and other current liabilities	$ 13,347,741	$ 19,731,373

8. Deerfield Obligation

In relation to the Company's acquisition of Avadel's pediatric products on February 16, 2018, the Company assumed an obligation that Avadel had to Deerfield CSF, (the "Deerfield Obligation"). Beginning in July 2018 through October 2020, the Company is required to pay a quarterly payment of $262,500 to Deerfield. In January 2021, a balloon payment of $15,250,000 is due. The difference between the gross value and fair value of these payments will be recorded as interest expense in the Company's condensed consolidated statements of operations through January 2021 using the effective interest method. Interest expense for the three and six months ended June 30, 2019 was $0.2 million and $0.5 million, respectively, and is included in interest expense, net on the accompanying consolidated statement of operations. The amounts due within the next year are included in current portion of long-term debt on the Company's condensed consolidated balance sheets. The amounts due in greater than one year are included in long-term debt, net of current portion, on the Company's condensed consolidated balance sheets. The Deerfield Obligation was $15.3 million as of June 30, 2019, of which $1.1 million is recorded as a current liability.

9. Capital Structure

According to the Company's amended and restated certificate of incorporation, the Company is authorized to issuetwo classes of stock, common stock and preferred stock. At June 30, 2019, the total number of shares of capital stock the Company was authorized to issue was 205,000,000 of which 200,000,000 was common stock and 5,000,000 was preferred stock. All shares of common and preferred stock have a par value of $0.001 per share.

On December 26, 2018, the Company filed a Certificate of Designation of Preferences of Series B Non-Voting Convertible Preferred Stock ("Series B Convertible Preferred Stock" or "convertible preferred stock") of Cerecor Inc. (the “Certificate of Designation of the Series B Preferred Stock”) classifying and designating the rights, preferences and privileges of the Series B Convertible Preferred Stock. The Certificate of Designation of the Series B Convertible Preferred Stock authorized 2,857,143 shares of convertible preferred stock. The Series B Convertible Preferred Stock converts to shares of common stock on a 1-for-5 ratio and has the same rights, preferences, and privileges as common stock other than it holds no voting rights.

Convertible Preferred Stock

December 2018 Armistice Private Placement

On December 27, 2018, the Company entered into a series of transactions as part of a private placement with Armistice in order to generate cash to continue to develop our pipeline assets and for general corporate purposes. The transactions are considered one transaction for accounting purposes. As part of the transaction, the Company exchanged common stock warrants issued on April 27, 2017 to Armistice for the purchase up to 14,285,714 shares of the Company’s common stock at an exercise price of $0.40 per share (the "original warrants") for like-kind warrants to purchase up to2,857,143 shares of the Company's newly designated Series B Convertible Preferred Stock with an exercise price of $2.00 per share (the "exchanged warrants"). Armistice immediately exercised the exchanged warrants and acquired an aggregate of 2,857,143 shares of the convertible preferred stock. Net proceeds of the transaction were approximately $5.7 million for the year ended December 31, 2018.

In order to provide Armistice an incentive to exercise the exchanged warrants, the Company also entered into a securities purchase agreement with Armistice pursuant to which the Company issued warrants for 4,000,000 shares of common stock of the Company with a term of5.5 years and an exercise price of $12.50 per share (the "incentive warrants"). For accounting purposes, the Company calculated

the fair value of the incentive warrants of $1.7 million, which was considered a deemed distribution to Armistice for the year ended December 31, 2018.

Voting

Holders of the Company's convertible preferred stock are not entitled to vote.

Dividends

The holders of convertible preferred stock are entitled to receive dividends, if any, as may be declared from time to time by the board of directors out of legally available funds.

Liquidation

In the event of the Company's liquidation, dissolution or winding up, holders of the Company's convertible preferred stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all debts and other liabilities.

Rights and Preferences

Each share of convertible preferred stock converts to shares of common stock on a 1-for-5 ratio. There are no other preemptive or subscription rights and there are no redemption or sinking fund provisions applicable to the Company's common stock.

Common Stock

Common Stock Offering

On March 8, 2019, the Company closed on an underwritten public offering of common stock for 1,818,182 shares of common stock of the Company, at a price to the public of $5.50 per share. Armistice participated in the offering by purchasing 363,637 shares of common stock of the Company from the underwriter at the public price. The gross proceeds to the Company, before deducting underwriting discounts and commissions and offering expenses, were approximately $10.0 million. The net proceeds were approximately $9.0 million.

December 2018 Armistice Private Placement

As discussed in detail above, on December 27, 2018 the Company exchanged previously outstanding warrants for like-kind warrants for 2,857,143 shares of the Company's convertible preferred stock with an exercise price of $2.00 per share. Armistice immediately exercised these warrants for 2,857,143 shares of convertible preferred stock for net proceeds to the Company of $5.7 million. The convertible preferred stock converts to common stock on a 1-for-5 ratio (or to 14,285,714 shares of common stock in total). Additionally, on December 27, 2018, in order to provide Armistice an incentive to exercise the exchanged warrants, the Company entered into a securities purchase agreement with Armistice pursuant to which the Company issued warrants for 4,000,000 shares of common stock of the Company with a term of 5.5 years and an exercise price of $12.50 per share (the "incentive warrants"). See "December 2018 Armistice Private Placement" above for more details.

August 2018 Armistice Private Placement

On August 17, 2018, the Company entered into a securities purchase agreement with Armistice, pursuant to which the Company sold 1,000,000 shares of the Company's common stock, $0.001 par value per share for a purchase price of $3.91 per share, which was the closing price of shares of the Common Stock on August 16, 2018. Net proceeds of this securities purchase agreement were approximately $3.9 million.

Ichorion Asset Acquisition

On September 25, 2018, under the terms of the Ichorion Asset Acquisition noted above in Note 5, the Company issued 5.8 million common stock shares upon closing.

Contingently Issuable Shares

Under the terms of TRx acquisition noted above in Note 5, the Company was required to issue common stock having an aggregate value as calculated in the TRx Purchase Agreement on the Closing Date of $8.1 million (the "Equity Consideration"). Upon closing, the Company issued 5,184,920 shares of its common stock. Pursuant to the TRx Purchase Agreement, the issuance of the remaining 2,349,968 shares as a part of the Equity Consideration was subject to stockholder approval at the Company's 2018 Annual Stockholder's Meeting. This approval was obtained in May 2018 and the remaining shares were issued to the TRx Sellers.

Voting

Common stock is entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends

The holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by the board of directors out of legally available funds.

Liquidation

In the event of the Company's liquidation, dissolution or winding up, holders of the Company's common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all debts and other liabilities.

Rights and Preferences

Holders of the Company's common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to the Company's common stock.

Common Stock Warrants

At June 30, 2019, the following common stock warrants were outstanding:

Number of shares underlying warrants	Exercise price per share	Expiration date
22,328*	$ 8.40	October 2020
2,380*	$ 8.68	May 2022
4,000,000	$ 12.50	June 2024
4,024,708		

*Accounted for as a liability instrument (see Note 6)

10. Stock-Based Compensation

2016 Equity Incentive Plan

On April 5, 2016, the Company's board of directors adopted the 2016 Equity Incentive Plan (the "2016 Plan") as the successor to the 2015 Omnibus Plan (the "2015 Plan"). The 2016 Plan was approved by the Company's stockholders and became effective on May 18, 2016 (the "2016 Plan Effective Date").

Upon the 2016 Plan Effective Date, the 2016 Plan reserved and authorized up to 600,000 additional shares of common stock for issuance, as well as 464,476 unallocated shares remaining available for grant of new awards under the 2015 Plan. An Amended and Restated 2016 Equity Incentive Plan (the "2016 Amended Plan) was approved by the Company's stockholders in May 2018 which increased the share reserve by an additional 1.4 million shares. During the term of the 2016 Amended Plan, the share reserve will automatically increase on the first trading day in January of each calendar year by an amount equal to 4% of the total number of outstanding shares of common stock of the Company on the last trading day in December of the prior calendar year. As of June 30, 2019, there were 934,972 shares available for future issuance under the 2016 Amended Plan.

Option grants expire after ten years. Employee options typically vest over three or four years. Options granted to directors typically vest over three years. Directors may elect to receive stock options in lieu of board compensation, which vest immediately. For

stock options granted to employees and non-employee directors, the estimated grant date fair market value of the Company's stock-based awards is amortized ratably over the individuals' service periods, which is the period in which the awards vest. Stock-based compensation expense includes expense related to stock options, restricted stock units and ESPP shares. The amount of stock-based compensation expense recognized for the three and six months ended June 30, 2019 and 2018 was as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Research and development	$ 120,709	$ 20,379	$ 178,085	$ 31,876
General and administrative	196,211	549,199	665,336	756,581
Sales and marketing	209,789	38,853	279,981	62,798
Total stock-based compensation	$ 526,709	$ 608,431	$ 1,123,402	$ 851,255

In April 2019, the former CEO resigned, however he remains on the Company's board of directors. Subsequent to his resignation, during the second quarter of 2019, the former CEO agreed to forfeit the unvested portion of his equity awards granted to him during his service as CEO. As a result, he forfeited a total of 1,489,583 equity awards, which included 689,583 unvested service-based vesting options, 500,000 unvested market-based options and 300,000 unvested restricted stock units. The Company accounts for forfeitures as they occur. Because the requisite service period of 2.8 years was not rendered for the market-based options, the forfeiture of the market-based options resulted in the reversal in the second quarter of 2019 of the full expense recognized to date of $0.5 million, which was recorded as a reduction to general and administrative expense.

Stock options with service-based vesting conditions

The Company has granted awards that contain service-based vesting conditions. The compensation cost for these options is recognized on a straight-line basis over the vesting periods. A summary of option activity for the six months ended June 30, 2019 is as follows:

	Options Outstanding			
	Number of shares	Weighted average exercise price per share	Weighted average grant date fair value of options	Weighted average remaining contractual term (in years)
Balance at December 31, 2018	3,746,597	$ 4.16		7.8
Granted	2,381,627	$ 5.96	$ 7,691,720	
Exercised	(74,902)	$ 3.44		
Forfeited	(796,063)	$ 5.12	$ 2,325,463	
Expired	(80,712)	$ 7.95	$ 279,812	
Balance at June 30, 2019	5,176,547	$ 4.79		8.3
Exercisable at June 30, 2019	2,321,047	$ 4.38		7.0

The aggregate intrinsic value of stock options is calculated as the difference between the exercise price of the stock options and the fair value of the Company's common stock for those stock options that had exercise prices lower than the fair value of the Company's common stock. As of June 30, 2019, the aggregate intrinsic value of options outstanding and currently exercisable was $6.3 million and $4.3 million, respectively. The total intrinsic value of options exercised during the six months ended June 30, 2019 was $0.1 million. The total grant date fair value of shares which vested during the six months ended June 30, 2019 was $1.0 million. The per-share weighted-average grant date fair value of the options granted during the six months ended June 30, 2019 was estimated at $3.23. There were 480,680 options that vested during the six months ended June 30, 2019 with a weighted average exercise price of $3.49 per share.

The Company recognized stock-based compensation expense of $0.6 million and $0.9 million related to stock options with service-based vesting conditions for the three and six months ended June 30, 2019, respectively. At June 30, 2019, there was $7.5 million of total unrecognized compensation cost related to unvested service-based vesting condition awards. The unrecognized compensation cost is expected to be recognized over a weighted-average period of 3.3 years.

Stock options with market-based vesting conditions

The Company has granted awards that contain market-based vesting conditions. The following table summarizes the Company's market-based option activity for the six months ended June 30, 2019:

	Options Outstanding			
	Number of shares	Weighted average exercise price per share	Weighted average remaining contractual term (in years)	Aggregate intrinsic value (1)
Balance at December 31, 2018	500,000	$ 4.24	9.2	
Granted	300,000	$ 4.98		
Exercised	—			
Forfeited	(500,000)	$ 4.24		
Balance at June 30, 2019	300,000	$ 4.98	9.9	$ 138,000
Exercisable at June 30, 2019	—			

(1) The aggregate intrinsic value in the above table represents the total pre-tax amount that a participant would receive if the option had been exercised on the last day of the respective fiscal period. Options with a market value less than its exercise value are not included in the intrinsic value amount.

During the second quarter of 2019, the Company granted the Executive Chairman of the Board an option to purchase 300,000 shares of Company common stock with market-based vesting conditions at an exercise price of $4.98 per share. One-third of the shares vest upon the Company's common stock closing at or above $8.00 per share for three consecutive days, one-third of the shares vest upon the Company's stock closing at or above $10.50 per share for three consecutive days, and one-third of the shares vest upon the Company's stock closing at or above $13.00 per share for three consecutive days. Each vesting tranche represents a unique requisite service period and therefore the compensation cost for each vesting tranche is recognized on a straight-line basis over its respective vesting period.

The Company recognized stock-based compensation expense of $(0.4) million and $(0.3) million for the three and six months ended June 30, 2019, which includes the reversal of expense for the former CEO's forfeited options and the expense related to the market-based options granted during the quarter. At June 30, 2019, there was $1.0 million of total unrecognized compensation cost related to unvested market-based vesting conditions awards. This compensation cost is expected to be recognized over a weighted-average period of 2.5 years.

Stock-based compensation assumptions

The following table shows the assumptions used to compute stock-based compensation expense for stock options granted to employees and members of the board of directors under the Black-Scholes valuation model and the assumptions used to compute stock-based compensation expense for market-based stock options grants under a Monte Carlo simulation for the six months ended June 30, 2019:

Service-based options	
Expected dividend yield	—%
Expected volatility	55%
Expected life (in years)	5.0 - 6.25
Risk-free interest rate	1.76 - 2.59%
Market-based options	
Expected dividend yield	—%
Expected volatility	60%
Expected life (in years)	10
Risk-free interest rate	2.32%

Restricted Stock Units

The Company has granted restricted stock units ("RSU") to certain employees. The Company measures the fair value of the restricted awards using the stock price on the date of the grant. The restricted shares typically vest annually over a four-year period beginning on the first anniversary of the award. The following table summarizes the Company's RSU activity for six months ended June 30, 2019:

	RSUs Outstanding	
	Number of shares	Weighted average grant date fair value
Unvested RSUs at December 31, 2018	445,000	$ 4.27
Granted	295,000	$ 4.98
Vested	(161,250)	$ 4.49
Forfeited	(300,000)	$ 4.24
Unvested RSUs at June 30, 2019	278,750	

During the second quarter of 2019, the Company granted its newly appointed Executive Chairman of the Board250,000 RSUs, of which 50,000 shares vested immediately on the grant date and the remainder are to vest in three equal annual increments based on continued service.

The Company recognized stock-based compensation expense of $0.3 million and $0.4 million related to RSUs for the three and six months ended June 30, 2019, respectively. At June 30, 2019, there was $1.4 million of total unrecognized compensation cost related to the RSU grants. This compensation cost is expected to be recognized over a weighted-average period of 2.8 years.

Employee Stock Purchase Plan

On April 5, 2016, the Company's board of directors approved the 2016 Employee Stock Purchase Plan (the "ESPP"). The ESPP was approved by the Company's stockholders and became effective on May 18, 2016 (the "ESPP Effective Date").

Under the ESPP, eligible employees can purchase common stock through accumulated payroll deductions at such times as are established by the administrator. The ESPP is administered by the compensation committee of the Company's board of directors. Under the ESPP, eligible employees may purchase stock at 85% of the lower of the fair market value of a share of the Company's common stock (i) on the first day of an offering period or (ii) on the purchase date. Eligible employees may contribute up to 15% of their earnings during the offering period. The Company's board of directors may establish a maximum number of shares of the Company's common stock that may be purchased by any participant, or all participants in the aggregate, during each offering or offering period. Under the ESPP, a participant may not accrue rights to purchase more than $25,000 of the fair market value of the Company's common stock for each calendar year in which such right is outstanding.

Upon the ESPP Effective Date, the Company reserved and authorized up to 500,000 shares of common stock for issuance under the ESPP. On January 1 of each calendar year, the aggregate number of shares that may be issued under the ESPP shall automatically increase by a number equal to the lesser of (i) 1% of the total number of shares of the Company's capital stock outstanding on December 31 of the preceding calendar year, and (ii) 500,000 shares of the Company's common stock, or (iii) a number of shares of the Company's common stock as determined by the Company's board of directors or compensation committee. The number of shares increased by 408,042 on January 1, 2019. As of June 30, 2019, 1,148,085 shares remained available for issuance.

In accordance with the guidance in ASC 718-50, *Employee Stock Purchase Plans*, the ability to purchase shares of the Company's common stock at the lower of the offering date price or the purchase date price represents an option and, therefore, the ESPP is a compensatory plan under this guidance. Accordingly, stock-based compensation expense is determined based on the option's grant-date fair value and is recognized over the requisite service period of the option. The Company used the Black-Scholes valuation model and recognized stock-based compensation expense of $52,388 and $87,685 for the three and six months ended June 30, 2019, respectively.

11. Income Taxes

The provision for income taxes was $66,417 and $232,776 for the three and six months ended June 30, 2019, respectively, and is comprised of several components including current year state income tax related to one of the Company's wholly owned subsidiaries and current year amortization of tax-deductible goodwill that gives rise to indefinite lived deferred tax liability impacting the amount of

valuation allowance required. Additionally, discrete to the three and six months ended June 30, 2019, the Company recorded interest and penalties on the outstanding taxes payable to the IRS and various state authorities.

12. Leases

Corporate Headquarters' Lease

The Company identified one operating lease, which is for its corporate headquarters located in Rockville, Maryland. The annual base rent for the office space is $161,671, subject to annual 2.5% increases over the term of the lease. The lease provides for a rent abatement for a period of 12 months following the Company's date of occupancy. The lease has an initial term of 10 years from the date the Company makes its first annual fixed rent payment, which is expected to occur in January 2020. The Company has the option to extend the lease two times, each for a period of five years, and may terminate the lease as of the sixth anniversary of the first annual fixed rent payment, upon the payment of a termination fee. As of the lease commencement date, it is not reasonably certain that the Company will exercise the renewal periods or early terminate the lease and therefore the end date of the lease for accounting purposes is January 31, 2030. The remaining term of the lease at June 30, 2019 was 10.6 years.

Supplemental balance sheet information related to the lease is as follows:

	As of	
	June 30, 2019	December 31, 2018
Property and equipment, net	$ 728,138	$ —
Other long-term liabilities	$ 1,212,268	$ —

The operating lease right-of-use asset is included in property and equipment and the lease liability is included in other long-term liabilities in our condensed consolidated balance sheets. In order to determine the present value of lease payments, the Company utilized a discount rate of 7.7%. This rate was determined based on available information of the rate of interest the Company would pay to borrow on a collateralized basis at an amount equal to the lease payments in a similar economic environment over a similar term on the transition date.

The components of lease expense for the three and six months ended June 30, 2019 and 2018 were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Operating lease cost*	$ 39,534	$ 49,241	$ 94,140	$ 96,800

*Includes short-term leases, which are immaterial.

Because the corporate headquarter lease provides for a 12-month lease abatement, the cash paid for amounts included in the measurement of lease liabilities was $0 as of June 30, 2019.

The following table shows a maturity analysis of the operating lease liability as of June 30, 2019:

	Undiscounted Cash Flows
June 30, 2019 through December 31, 2019	$ —
2020	155,815
2021	169,510
2022	173,748
2023	178,092
Thereafter	1,183,290
Total lease payments	$ 1,860,455
Less implied interest	$ (648,187)
Total	$ 1,212,268

13. Commitments and Contingencies

Litigation

The Company is party in various contractual disputes, litigation, and potential claims arising in the ordinary course of business. The Company does not believe that the resolution of these matters will have a material adverse effect on our financial position or results of operations except as otherwise disclosed in this document.

TRx 2018 Target Gross Profit Dispute

As part of the TRx acquisition, pursuant to the Purchase Agreement, the Company is required to pay$3.0 million to the Sellers (or "former TRx owners") if the gross profit, as defined in the Purchase Agreement, related to TRx products equaled or exceeded $12.6 million in 2018. The Company believes it did not achieve this contingent event in 2018 and therefore no amount is due to the former TRx owners. However, during the second quarter of 2019 the former TRx owners disputed the Company's calculation of gross profit and therefore believes the Company met the $12.6 million target in 2018. Pursuant to the Purchase Agreement, in lieu of an unresolved dispute, the dispute will be submitted to an independent accounting firm for resolution. The independent accounting firm is in process of being identified. Cerecor plans to defend its position vigorously. The dispute represents a possible loss to the Company in the range of $0 to $3.0 million.

Lachlan Pharmaceuticals Settlement

As discussed in Note 5, in November 2017, the Company acquired TRx and its wholly-owned subsidiaries, including Zylera. The previous owners of TRx combined beneficially own more than 10% of our outstanding common stock. Zylera, which is now our wholly owned subsidiary, entered into an agreement with Lachlan Pharmaceuticals, an Irish company controlled by the previous owners of TRx (“Lachlan”), effective December 18, 2015 (the "Lachlan Agreement"). Pursuant to the Lachlan Agreement, Lachlan named Zylera as its exclusive distributor of Ulesfia in the United States and agreed to supply Ulesfia to Zylera exclusively for marketing and sale in the United States. On May 22, 2019, the Company, Lachlan, the owners of Lachlan and Concordia Pharmaceuticals Inc., Sarl (“Concordia”), which is the unrelated third party from which Lachlan obtained rights to distribute Ulesfia, entered into a Settlement Agreement and related side letter and terminated the Lachlan Agreement, as discussed in more detail below (the Settlement Agreement and related side letter collectively the “Settlement”).

The Lachlan Agreement required Zylera to purchase a minimum of20,000 units per year, or approximately $1.2 million worth of product, from Lachlan, unless and until there was a “Market Change” involving a new successful competitive product. Zylera was required to pay Lachlan $58.84 per unit and handling fees equal to$4.03 per unit of fully packaged Ulesfia in 2019, escalating 10% annually. The Lachlan Agreement also required that Zylera make certain cumulative net sales milestone payments and royalty payments to Lachlan with a $3.0 million annual minimum payment unless and until there was a Market Change. Lachlan was obligated to pay identical amounts to the unrelated third party from which it obtained rights to Ulesfia, with the payments ultimately flowing through Shionogi, Inc. to Summers Laboratories, Inc. ("Summers Labs"). Because of the dispute described below, the Company had not made any payments to Lachlan under the Lachlan Agreement subsequent to the acquisition date.

On December 10, 2016, Zylera informed Lachlan that a Market Change had occurred due to the introduction of Arbor Pharmaceuticals' lice product, Sklice®. On June 5, 2017, Lachlan and Zylera entered into joint legal representation along with other unrelated third parties in negotiation and arbitration of a dispute with Summers Labs regarding the existence of a Market Change and the concomitant obligations of the parties. The arbitration panel issued an interim ruling on October 23, 2018 that no Market Change had occurred up to and including the date of the hearing. The arbitration panel issued a second interim ruling on December 26, 2018, rejecting Summers Labs' request to accelerate future minimum royalties, but ruling in favor of Summers Labs that it is owed reimbursement for all reasonable costs and expenses, including legal fees, by Shionogi, as well as interest, as stipulated in the contract. The arbitration panel issued a final award on March 1, 2019 that dictated the final amount of reimbursable costs and interest. The rulings and final award had no direct bearing on the Company because the Company was not a named defendant to the original claim by Summers Labs and a federal court denied Zylera's ability to be a counterclaimant in the matter. Furthermore, the Company was not subject to the guarantee or interest provisions identified in the second ruling as these elements of the contractual relationship were not passed down to or through Lachlan. However, the Company interpreted the rulings’ impact on the Lachlan Agreement to mean that the minimum purchase obligation and minimum royalty provisions of the contract were active and due for any prior periods as well as future periods.

Prior to the Settlement, the Company had recognized an $8.7 million liability for these minimum obligations and $0.4 million for the royalty payable in accrued liabilities as of March 31, 2019. Additionally, prior to settlement, under the terms of the TRx

Purchase Agreement, the former TRx owners were required to indemnify the Company for100% of all ”Pre-Acquisition Ulesfia Losses,” as defined in the purchase agreement, related to this arbitration, including legal costs, in excess of $1.0 million. Furthermore, the former TRx owners were required to indemnify the Company for50% of “Post-Acquisition Ulesfia Losses,” as defined in the purchase agreement, which would include losses resulting from having to fund these minimum obligations post-acquisition. The Company had recorded an indemnity receivable of $5.2 million in other receivables as of March 31, 2019, which the Company believed was fully collectible.

Pursuant to the Settlement, during the second quarter of 2019, the Company made a $2.3 million cash payment to Concordia for a full release of all current and future liabilities related to the Lachlan Agreement as of June 30, 2019. As a result, the Company reversed the $8.7 million liability for the minimum obligations and $0.4 million royalty payable in accrued liabilities as of June 30, 2019. The Settlement also released the former TRx owners of their requirement to indemnify the Company for the losses discussed above. Thus, the Company reversed the $5.2 million indemnity receivable in other receivables as of June 30, 2019. The Settlement resulted in a net reversal of $1.6 million in previously recognized expense to cost of product sales for the three and six months ended June 30, 2019.

Additionally, with the termination of the Lachlan Agreement, the Company gave up its right to sell Ulesfia, except for a limited amount of inventory on hand until that inventory is all sold or expired. Finally, as discussed in detail in Note 6, the Settlement released the Company from having to make any acquisition milestone payout for the NDA transfer of Ulesfia and the FDA approval of an alternate dosing. Therefore, no value is assigned to the two milestones as of June 30, 2019, which resulted in the recognition of a gain on the change in fair value of contingent consideration of $1.3 million for the period ended June 30, 2019.

Purchase obligations

The Company has unconditional purchase obligations as a result of the acquisition of Avadel's pediatric products that include agreements to purchase goods that are enforceable and legally binding and that specify all significant terms including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Purchase obligations exclude agreements that are cancelable at any time without penalty. The unconditional purchase obligations outstanding as of June 30, 2019 include the following:

Karbinal Royalty Make-Whole Provision

As discussed in Note 5, on February 16, 2018, in connection with the acquisition of Avadel's pediatric products, the Company entered into a supply and distribution agreement with TRIS Pharma (the "Karbinal Agreement"). As part of this agreement, the Company has an annual minimum sales commitment, which is based on a commercial year that spans from August 1 through July 31, of 70,000 units through 2033. The Company is required to pay TRIS a royalty make whole payment of $30 for each unit under the 70,000 units annual minimum sales commitment through 2033.

The Company paid $0.9 million to TRIS in August 2018 related to the make-whole payment for the commercial year ended July 31, 2018. As of June 30, 2019, the Company has accrued $1.5 million in accrued expenses and other current liabilities related to the Karbinal royalty make whole for the commercial year ending July 31, 2019. For the three and six months ended June 30, 2019, the make-whole provision of $0.4 million and $0.8 million has been recorded in cost of product sales. The future royalty make-whole payments are unknown as the amount owed to TRIS is dependent on the number of units sold.

Possible future milestone proceeds for out-licensed compounds

On August 8, 2019, the Company entered into an assignment of license agreement (the “Assignment Agreement”) with ES Therapeutics, LLC (“ES Therapeutics”), a wholly-owned subsidiary of Armistice, a significant stockholder of the Company. Pursuant to the Assignment Agreement, the Company assigned and transferred its rights, title, interest, and obligations with respect to CERC-611 to ES Therapeutics. The Company initially licensed the compound from Eli Lilly Company ("Lilly") in September 2016. The Assignment Agreement provides that Armistice will pay the Company an upfront payment of $0.1 million, which is due within 30 days of the effective date of the Assignment Agreement. The Assignment Agreement also contains: (a) a $7.5 million milestone payment to the Company upon cumulative net sales of licensed products reaching $750.0 million; and (b) a $12.5 million milestone payment to the Company upon cumulative net sales of licensed products reaching $1.3 billion. The Assignment Agreement also releases the Company of obligations related to CERC-611, including the $1.3 million contingent payment to Lilly upon the first subject dosage of CERC-611 in a multiple ascending dose study, which is recorded as a license obligation on the balance sheet as of June 30, 2019. The release of this license obligation will result in an offset of research and development expense in the amount of the contingent payment during the third quarter of 2019. The Assignment Agreement also releases the Company from additional potential

future payments due to Lilly upon achievement of certain development and commercialization milestones, including the first commercial sale, and milestone payments and royalty on net sales upon commercialization of the compound.

In August 2017, the Company sold its worldwide rights to CERC-501 to Janssen Pharmaceuticals, Inc. (“Janssen”) in exchange for initial gross proceeds of$25.0 million. There is a potential future $20.0 million regulatory milestone payment to the Company. The terms of the agreement provide that Janssen will assume ongoing clinical trials and be responsible for any new development and commercialization of CERC-501.

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

This Quarterly Report on Form 10-Q and the information incorporated herein by reference contain forward-looking statements that involve a number of risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Forward-looking statements can be identified by the use of forward-looking words such as "believes," "expects," "may," "will," "plans," "intends," "estimates," "could," "should," "would," "continue," "seeks," "aims," "projects," "predicts," "pro forma," "anticipates," "potential" or other similar words (including their use in the negative), or by discussions of future matters such as the development of product candidates or products, technology enhancements, possible changes in legislation, and other statements that are not historical. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those below and elsewhere in this Quarterly Report on Form 10-Q, particularly in Part II – Item 1A, "Risk Factors," as well as in our Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC, on March 18, 2019, as amended on April 23, 2019 and in our other filings with the SEC. Statements made herein are as of the date of the filing of this Quarterly Report on Form 10-Q with the SEC and should not be relied upon as of any subsequent date. Unless otherwise required by applicable law, we do not undertake, and we specifically disclaim any obligation to update any forward-looking statements to reflect occurrences, developments, unanticipated events or circumstances after the date of such statement.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited financial statements and related notes that appear in Item 1 of this Quarterly Report on Form 10-Q and with our audited financial statements and related notes for the year ended December 31, 2018 appearing in our Annual Report on Form 10-K filed with the SEC on March 18, 2019, as amended on April 23, 2019.

Overview

Cerecor Inc. (the Company or "Cerecor") is a fully integrated biopharmaceutical company with commercial operations and research and development capabilities. The Company is building a pipeline of innovative therapies in orphan diseases, neurology and pediatric healthcare. The Company's pediatric orphan disease pipeline is led by CERC-801, CERC-802 and CERC-803. All three compounds are therapies for inborn errors of metabolism, specifically disorders known as Congenital Disorders of Glycosylation ("CDGs") by means of substrate replacement therapy. The U.S. Food and Drug Administration ("FDA") has granted Rare Pediatric Disease Designation ("RPDD") and Orphan Drug Designation ("ODD") to all three CERC-800 compounds, thus qualifying the Company to receive a Priority Review Voucher ("PRV") upon approval of a new drug application ("NDA"). The PRV may be sold or transferred an unlimited number of times. The Company plans to leverage the 505(b)(2) NDA pathway for all three compounds to accelerate development and approval. The Company is also in the process of developing one other preclinical pediatric rare disease compound, CERC-913, for the treatment of mitochondrial DNA Depletion Syndrome. The Company's neurology pipeline is led by CERC-301, a Glutamate NR2B selective, NMDA Receptor antagonist, which Cerecor is currently developing as a novel treatment for orthostatic hypotension ("OH"). The Company is also developing CERC-406, a CNS-targeted COMT inhibitor for Parkinson's Disease.

The Company also has a diverse portfolio of marketed products. Our marketed products are led by our prescribed dietary supplements and prescribed drugs. Our prescribed dietary supplements include Poly-Vi-Flor® and Tri-Vi-Flor™ which are prescription vitamin and fluoride supplements used in infants and children to treat or prevent deficiency of essential vitamins and fluoride. The Company also markets a number of prescription drugs that treat a range of pediatric diseases, disorders and conditions. Cerecor's prescription drugs include Millipred®, Karbinal™ ER, AcipHex® Sprinkle™ and Cefaclor for Oral Suspension.

Recent Developments

Cerecor Added to Russell 3000® Index

The Company was added to the Russell 3000® Index effective July 1, 2019. Membership in the Russell 3000® Index, which remains in place for one year, means the automatic inclusion of Cerecor's common stock in index funds designed to track stocks included in the Russell 3000® Index. FTSE Russell, a leading global index provider, determines membership for its Russell indexes primarily by objective, market-capitalization rankings and style attributes. Russell indexes are widely used by investment managers and institutional investors for index funds and as benchmarks for active investment strategies.

Appointment of Keith Schmidt to Board of Directors

In June 2019, the Company announced the appointment of Keith Schmidt to its Board of Directors. Mr. Schmidt joined the Cerecor Board as a member of the Audit Committee, the Compensation Committee, and an independent director serving a term ending at the 2019 Annual Meeting. Mr. Schmidt has over 35 years of diverse, cross-functional executive experience in the healthcare industry including experience in new product development and commercialization. The Company believes Mr. Schmidt will provide valuable insights and strategic guidance as it continues to progress current commercial products as well as prepare for commercialization and launch of our pipeline assets.

Research and Development Updates

Neurology Pipeline Assets Updates

In July 2019, the Company announced final positive results from its completed Phase 1 study of CERC-301 for the treatment of Neurogenic Orthostatic Hypotension ("nOH") in Parkinson's disease patients. These final results further strengthen the previously reported interim results announced in April 2019, showing that CERC-301 produces a rapid, robust and sustained improvement in systolic blood pressure (SBP) upon standing in Parkinson's patients suffering from nOH, utilizing the standardized Orthostatic Standing Test (OST). All doses showed clinically meaningful increases in blood pressure over placebo, within the six-hour post-dose timepoints. The purpose of the Phase 1 study is to evaluate the single-dose safety, tolerability and pharmacokinetics of CERC-301 in the relevant patient population, as well as explore the effects on blood pressure in nOH patients during an orthostatic challenge at escalating dose levels. The final results reinforce the rapid, robust increase in SBP from baseline to six hours. This early and sustained effect could differentiate CERC-301 from existing nOH treatments. Additionally, all doses tested were safe and well tolerated with no serious adverse events reported. Additionally, in early 2019, a patent was issued for CERC-301, which should provide Cerecor with intellectual property rights to CERC-301 until 2035. The patent covers the crystalline form of CERC-301, as well as a pharmaceutical composition containing the crystalline form of CERC-301. It also covers methods of treating conditions responsive to NR2B antagonists.

Pediatric Rare Disease Pipeline Assets Updates

In July 2019, the Company announced that the FDA accepted the CERC-802 MPI deficiency IND application filing and may proceed with the proposed study. The clinical development program for CERC-802 will commence with a Phase I study in healthy volunteers. The goals of the study will be to assess the single dose tolerability and pharmacokinetics of CERC-802. Cerecor seeks to leverage existing clinical and nonclinical data in conjunction with sponsor-initiated studies, such as this Phase I study and the recently initiated CDG FIRST Trial (discussed in detail below), to accelerate development and approval of CERC-802 via the 505(b)(2) pathway.

In July 2019, the Company announced it has enrolled its first patient into the CDG FIRST trial. The CDG FIRST trial is a multi-center, international, non-interventional, retrospective study that follows general principles of periodic assessment of CDG patients in routine practice. The objectives of the study are to collect natural history and treatment-related data of patients diagnosed with PGM1-CDG, MPI-CDG or SLC35C1-CDG who are either treated with or without D-galactose, D-mannose and L-fucose, respectively, as well as patients with other CDGs who are treated with one of the sugars. Cerecor has three compounds under development for CDGs: CERC-801, D-galactose, to treat Phosphoglucomutase 1 (PGM1) Deficiency; CERC-802, D-mannose, to treat Mannose-Phosphate Isomerase (MPI) Deficiency; and CERC-803, L-fucose, to treat Leukocyte Adhesion Deficiency Type II (LADII) or SLC35C1-CDG. Each indication is an ultra-rare CDG estimated to have less than 1,000 patients in the world.

All three CERC-800 programs have been granted RPDD and ODD by the FDA and CERC-801 has received Fast-Track Designation ("FTD") by the FDA. There are numerous benefits associated with receipt of ODD, which include 7-year marketing exclusivity (upon approval) in the United States, 10-year marketing exclusivity (upon approval) in Europe, tax credits (up to 25% of clinical development costs) and waiver of Prescription Drug User Fee Act application fees (filing fees). RPDD provides eligibility for receipt of a PRV upon approval of an NDA. The PRV, which may be sold or transferred an unlimited amount of times, can be used to obtain priority review for a subsequent new drug application or biologics license application. Further, FTD is granted to drugs being developed for the treatment of serious or life-threatening diseases or conditions where there is an unmet medical need. The purpose of the FTD provision is to help facilitate development and expedite the review of drugs to treat serious and life-threatening conditions so that an approved product can reach the market expeditiously. Cerecor has previously held pre-IND meetings with the FDA and plans to leverage data from the CDG FIRST Trial, existing clinical and nonclinical data from published literature and sponsor-initiated studies to accelerate development and approval of all three compounds under the 505(b)(2) pathway.

The following chart summarizes upcoming research & development milestones over the next twelve to eighteen months:

	Program	Target Indication	Upcoming Milestone
Metabolic Disorders	CERC-801*	PGM1-CDG	-FDA Discussion 2H19 -Targeted NDA Submission 2H20
	CERC-802*	MPI-CDG	-Phase I Initiated 4Q19 -Targeted NDA Submission 1H21
	CERC-803*	SLC35C1-CDG	-IND Filing 1H20 -Targeted NDA Submission 2021
Neurology Disorders	CERC-301	Orthostatic Hypotension	Initiate PoC in Additional Indication(s) 2H19
	CERC-406	Parkinson's Disease	IND Filing 1H20

*505(b)(2) Pathway

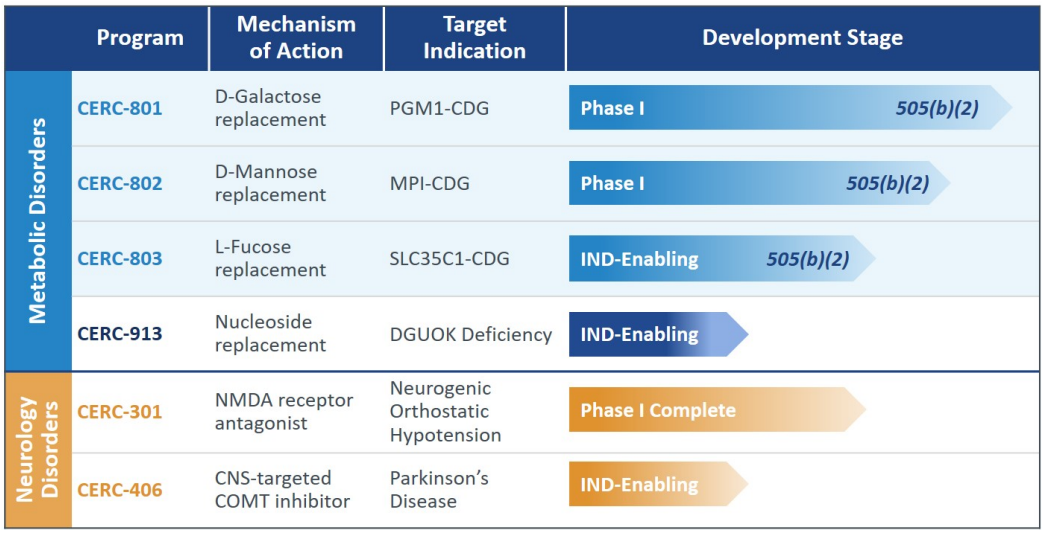
Our Strategy

Our strategy for increasing shareholder value includes:

- Advancing our pipeline of compounds through development and to regulatory approval;
- Acquiring or licensing rights to targeted, differentiated preclinical and clinical stage product candidates;
- Acquiring or licensing rights to clinically meaningful and differentiated products that are already on the market for pediatric use or in late-stage development for pediatric indications;
- Growing sales of the existing commercial products in our portfolio, including by identifying and investing in growth opportunities such as new indications and new geographic markets; and
- Opportunistically out-licensing rights to indications or geographies.

Product Pipeline Assets

The following table summarizes key information about our product candidates and further detail regarding each product candidate follows:



On August 8, 2019, the Company entered into an assignment of license agreement (the "Assignment Agreement") with ES Therapeutics, LLC ("ES Therapeutics"), a wholly-owned subsidiary of Armistice, a significant stockholder of the Company. Pursuant to the Assignment Agreement, the Company assigned and transferred its rights, title, interest, and obligations with respect to CERC-611 to ES Therapeutics. The Company initially licensed the compound from Eli Lilly Company ("Lilly") in September 2016. The Assignment Agreement provides that Armistice will pay the Company an upfront payment of $0.1 million, which is due within 30 days of the effective date of the Assignment Agreement. The Assignment Agreement also contains: (a) a $7.5 million milestone payment to the Company upon cumulative net sales of licensed products reaching $750.0 million; and (b) a $12.5 million milestone payment to the Company upon cumulative net sales of licensed products reaching $1.3 billion. The Assignment Agreement also releases the Company of obligations related to CERC-611, including the $1.3 million contingent payment to Lilly upon the first subject dosage of CERC-611 in a multiple ascending dose study, which is recorded as a license obligation on the balance sheet as of June 30, 2019. The release of this license obligation will result in an offset of research and development expense in the amount of the contingent payment during the third quarter of 2019. The Assignment Agreement also releases the Company from additional potential future payments due to Lilly upon achievement of certain development and commercialization milestones, including the first commercial sale, and milestone payments and royalty on net sales upon commercialization of the compound.

Results of Operations

Comparison of the Three Months Ended June 30, 2019 and 2018

The following table summarizes our revenue for the three months ended June 30, 2019 and 2018:

	Three Months Ended June 30,	
	2019	2018
	(in thousands)	
Product revenue, net	$ 4,449	$ 4,711
Sales force revenue	$ —	$ 74
	$ 4,449	$ 4,785

Product Revenue, net

Net product revenue decreased $0.3 million for the three months ended June 30, 2019 as compared to the same period in 2018. The decrease was due to a less favorable product mix and lower sales volume during the current period.

Sales Force Revenue

As part of the acquisition of TRx in November 2017, the Company acquired a sales and marketing agreement with Pharmaceutical Associates, Inc. ("PAI") under which the Company received a monthly marketing fee to promote, market and sell certain products on behalf of PAI. The Company was also entitled to a share of PAI's profits. For the three months ended June 30, 2018, sales force revenue was $0.1 million. The PAI contract was canceled during the second quarter of 2018 and therefore there is no sales force revenue for the three months ended June 30, 2019.

Cost of Product Sales

Cost of product sales was $(0.1) million for the three months ended June 30, 2019, as compared to $1.4 million for the three months ended June 30, 2018. The decrease of $1.5 million for the current period as compared to the same period in 2018 was attributable to the net $1.6 million reversal to cost of product sales recorded for the three months ended June 30, 2019 related the Lachlan Settlement Agreement the Company entered into on May 22, 2019. Pursuant to the Settlement, the Company made a $2.3 million cash payment for a full release of all current and future liabilities related to the Lachlan Agreement as of June 30, 2019. As a result, the Company reversed the $8.7 million liability for the minimum obligations and $0.4 million royalty payable (both related to the Ulesfia product) in accrued liabilities as of June 30, 2019. The Settlement also released the former TRx owners of their requirement to indemnify the Company for the pre-acquisition Ulesfia losses. Thus, the Company reversed the $5.2 million indemnity receivable in other receivables related to the pre-acquisition Ulesfia losses as of June 30, 2019. The Settlement resulted in a net reversal of $1.6 million to cost of product sales for the three months ended June 30, 2019.

The decrease related to the Lachlan Settlement Agreement is partially offset by the write down of Flexichamber inventory as of June 30, 2019 to $0 which resulted in a $0.2 million charge to cost of product sales for the period.

Research and Development Expenses

The following table summarizes our research and development expenses for thethree months ended June 30, 2019 and 2018:

	Three Months Ended June 30,	
	2019	2018
	(in thousands)	
Preclinical expenses	$ 667	$ 396
Clinical expenses	1,691	351
CMC expenses	755	33
Internal expenses not allocated to programs:		
Salaries, benefits and related costs	474	236
Stock-based compensation expense	121	20
Other	5	47
	$ 3,713	$ 1,083

Research and development expenses increased $2.6 million for the three months ended June 30, 2019 compared to the same period in 2018. Clinical expenses increased $1.3 million primarily due to increased activities related to the CERC-301 clinical study in nOH during the second quarter of 2019 and activities related to CERC-801, CERC-802, and CERC-803, which were acquired as part of the Ichorion Acquisition in September 2018. Chemistry, Manufacturing, and Controls ("CMC") expenses increased $0.7 million for the three months ended June 30, 2019 compared to the same period in 2018 due to additional spending on manufacturing to support clinical development. Salaries, benefits, and related costs increased by $0.2 million compared to the same period in 2018 due to an increase in headcount and salary-related costs.

General and Administrative Expenses

The following table summarizes our general and administrative expenses for thethree months ended June 30, 2019 and 2018:

	Three Months Ended June 30,	
	2019	2018
	(in thousands)	
Salaries, benefits and related costs	$ 1,226	$ 836
Legal, consulting and other professional expenses	774	1,543
Stock-based compensation expense	196	549
Other	186	114
	$ 2,382	$ 3,042

General and administrative expenses were $2.4 million for the three months ended June 30, 2019, which is a decrease of $0.7 million compared to the three months ended June 30, 2018. The overall decrease was driven by a $0.8 million decrease in legal, consulting, and other professional expenses, $0.4 million decrease in stock-based compensation, partially offset by a $0.4 million increase in salaries, benefits and related costs.

Legal, consulting and other professional expenses decreased $0.8 million mainly due to a substantial decrease in consulting fees. The consulting costs incurred in the prior year were related to the integration of the acquisitions of TRx and Avadel's pediatric products. The Company has since increased corporate headcount and therefore utilizes less consulting services to meet accounting and reporting requirements. Additionally, $0.4 million of litigation fees incurred in the three months ended June 30, 2018 relate to arbitration and legal costs related to Lachlan Pharmaceuticals (explained further in Note 13 to the accompanying unaudited financial statements appearing above). Under the terms of the TRx Purchase Agreement, prior to entering into the Lachlan Settlement Agreement in the second quarter of 2019, the former TRx owners were required to indemnify the Company for 100% of all pre-acquisition losses related this arbitration, including legal costs, and possible minimum payments in excess of $1.0 million. The $1.0 million threshold was met in the third quarter of 2018. Stock-based compensation expense decreased $0.4 million for the three months ended June 30, 2019 as compared to the same period in 2018 due to the reversal of the full expense recognized to-date of $0.5 million related to the former CEO's unvested market-based options that were forfeited during the quarter, partially offset by expense recognized for stock options granted to executives in the period and expense recognized related to the Company's annual stock option award. These decreases were partially offset by a $0.4 million increase to salaries, benefits and related costs due to an increase in headcount and salary-related costs.

Sales and Marketing Expenses

The following table summarizes our sales and marketing expenses for the three months ended June 30, 2019 and 2018:

	Three Months Ended June 30,	
	2019	2018
	(in thousands)	
Salaries, benefits and related costs	$ 1,803	$ 1,424
Logistics, insurance and other commercial operations expenses	344	417
Stock-based compensation expense	210	39
Advertising and marketing expense	488	136
Other	92	26
	$ 2,937	$ 2,042

Sales and marketing expenses increased $0.9 million for the three months ended June 30, 2019 as compared to the same period in 2018. Salaries, benefits and related costs increased $0.4 million as a result of increasing sales and sales support personnel needed to maintain and grow our commercial sales activities in connection with the acquisition of TRx and Avadel's pediatric products. Specifically, during the third quarter of 2018, the Company initiated an expansion of the sales force, which was largely completed in the first quarter of 2019. Stock-based compensation expense increased $0.2 million due to an increase in stock option grants during second half of 2018 driven by the sales force expansion as well as the additional expense related to the annual stock option award that was granted on April 1, 2019. Advertising and marketing expenses increased $0.4 million due to an increased focus on advertising and marketing initiatives during the current quarter to support the portfolio of pediatric drugs.

Amortization Expense

The following table summarizes our amortization expense for the three months ended June 30, 2019 and 2018:

	Three Months Ended June 30,	
	2019	2018
	(in thousands)	
Amortization of intangible assets	$ 1,079	$ 1,233

Amortization expense relates to the acquisition of intangible assets as part of the acquisition of TRx in November 2017 and Avadel's pediatric products in February 2018.

Impairment of Intangible Assets

The following table summarizes our expense related to impairment of intangible assets for thethree months ended June 30, 2019 and 2018:

	Three Months Ended June 30,	
	2019	2018
	(in thousands)	
Impairment of intangible assets	$ 1,449	$ 1,702

The Company recorded expense related to impairment of intangible assets of$1.4 million for the three months ended June 30, 2019 due to the impairment of the Flexichamber intangible asset. During the second quarter of 2019, the Company made a strategic decision to eliminate sales force efforts related to selling Flexichamber. As a result of this decision, paired with significant deviations from forecasted sales, management identified an impairment indicator for Flexichamber during the second quarter of 2019. Accordingly, the Company performed a test for recoverability and concluded that the sum of its estimated future undiscounted cash flows was less than its carrying value of $1.4 million. Management then measured the impairment loss by calculating the excess of the carrying amount of Flexichamber over its fair value. Management determined that due to the absence of future material cash flows that the fair value was $0. Accordingly, a full impairment was recognized in the amount of $1.4 million for the three months ended June 30, 2019.

The Company recorded impairment of intangible asset expense of$1.7 million for the three months ended June 30, 2018 due to the impairment of the PAI sales and marketing agreement intangible asset upon termination of the corresponding agreement.

Change in Fair Value of Contingent Consideration

The following table summarizes our change in fair value of contingent consideration for thethree months ended June 30, 2019 and 2018:

	Three Months Ended June 30,	
	2019	2018
	(in thousands)	
Change in fair value of contingent consideration	$ (992)	$ 13

The Company recognized a gain on the change in fair value of contingent consideration of$1.0 million for the three months ended June 30, 2019 as compared to an immaterial loss for the same period in 2018. The contingent consideration was related to the potential for future payment of consideration that is contingent upon the achievement of operation and commercial milestones and royalty payments on future product sales as part of the Company's acquisitions of Avadel's pediatric products and TRx. The fair value of contingent consideration was determined at the acquisition date. Subsequent to the acquisition date, at each reporting period, the contingent consideration liability is remeasured at the current fair value with changes recorded in operating expenses in the condensed consolidated statement of operations.

The gain recognized in the current period is largely related to the Company entering into the Lachlan Settlement Agreement during the second quarter of 2019 that, among other terms, released the Company from the potential contingent payments related to the TRx acquisition, thus reducing the fair value down to $0 as of June 30, 2019. This represented a gain on the change of fair value of contingent consideration of $1.3 million for the three months ended June 30, 2019. The gain is partially offset by a $0.3 million

loss recognized for the three months ended June 30, 2019 related to the increase in fair value of the contingent consideration related to the future potential royalties on Avadel's pediatric products.

Other Expense, Net

The following table summarizes our other expense, net for the three months ended June 30, 2019 and 2018:

	Three Months Ended June 30,	
	2019	2018
	(in thousands)	
Change in fair value of warrant liability and unit purchase option liability	$ 19	$ 4
Interest expense, net	(200)	(242)
	$ (181)	$ (238)

Income Tax Expense

The provision for income taxes was $66,417 for the three months ended June 30, 2019 and includes estimated cash taxes and additionally, discrete to the quarter, interest and penalties on the outstanding taxes payable to the IRS and various state authorities. The provision for income taxes for the three months ended June 30, 2018, which was immaterial, was composed of state income tax for one of the Company's wholly owned subsidiaries.

Comparison of the Six Months Ended June 30, 2019 and 2018

The following table summarizes our revenue for the six months ended June 30, 2019 and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Product revenue, net	$ 9,861	$ 8,971
Sales force revenue	—	297
	$ 9,861	$ 9,268

Product Revenue, Net

Net product revenue increased $0.9 million for the six months ended June 30, 2019 as compared to the same period in 2018. The increase was due to favorable product mix and unit growth driven by the sales force expansion as well as due to a full year of sales of products that were acquired during the first quarter of 2018.

Sales Force Revenue

As part of the acquisition of TRx in November 2017, the Company acquired a sales and marketing agreement with PAI under which the Company received a monthly marketing fee to promote, market and sell certain products on behalf of PAI. The Company was also entitled to a share of PAI's profits. For the six months ended June 30, 2018, sales force revenue was $0.3 million. The PAI contract was canceled during the second quarter of 2018 and therefore there is no sales force revenue for the six months ended June 30, 2019.

Cost of Product Sales

Cost of product sales was $1.8 million for the six months ended June 30, 2019, as compared to $2.3 million for the six months ended June 30, 2018. The decrease of $0.5 million for the current period as compared to the same period in 2018 was attributable to $(1.6) million recognized to cost of product sales related to the reversal of expense pursuant to the Lachlan Settlement Agreement the Company entered into on May 22, 2019. Pursuant to the Settlement, the Company made a $2.3 million cash payment for a full release of all current and future liabilities related to the Lachlan Agreement as of June 30, 2019. As a result, the Company reversed the $8.7 million liability for the minimum obligations and $0.4 million royalty payable (both related to the Ulesfia product) in accrued liabilities as of June 30, 2019. The Settlement also released the former TRx owners of their requirement to indemnify the Company for the pre-acquisition Ulesfia losses. Thus, the Company reversed the $5.2 million indemnity receivable in other receivables related

to the pre-acquisition Ulesfia losses as of June 30, 2019. The Settlement resulted in a net reversal of $1.6 million to cost of product sales for the six months ended June 30, 2019 offset by activity recorded for the first quarter of 2019.

The decrease related to the Lachlan Settlement Agreement is partially offset by increased cost of product sales recognized for sales of our pediatric products driven by increased sales for the six months ended June 30, 2019. The decrease was further partially offset by the write down of Flexichamber inventory as of June 30, 2019 to $0, which resulted in a $0.2 million charge to cost of product sales for the period.

Research and Development Expenses

The following table summarizes our research and development expenses for thesix months ended June 30, 2019and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Preclinical expenses	$ 1,547	$ 1,282
Clinical expenses	3,280	649
CMC expenses	1,190	140
Internal expenses not allocated to programs:		
Salaries, benefits and related costs	908	485
Stock-based compensation expense	178	32
Other	11	144
	$ 7,114	$ 2,732

Research and development expenses increased $4.4 million for the six months ended June 30, 2019 compared to the same period in 2018. The overall increase is driven by an increase in research and development activities during the current year as the Company continues to develop its pipeline of assets. Clinical expenses increased $2.6 million primarily due to increased activities related to the CERC-301 clinical study in nOH during the first half of 2019 and activities related to CERC-801, CERC-802, and CERC-803, which were acquired as part of the Ichorion Acquisition in September 2018. Chemistry, Manufacturing, and Controls ("CMC") expenses increased $1.1 million for the six months ended June 30, 2019 compared to the same period in 2018 due to additional spending on manufacturing to support clinical development. Salaries, benefits, and related costs increased by $0.4 million compared to the same period in 2018 due to an increase in headcount and salary-related costs.

General and Administrative Expenses

The following table summarizes our general and administrative expenses for thesix months ended June 30, 2019and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Salaries, benefits and related costs	$ 2,456	$ 1,475
Legal, consulting and other professional expenses	1,661	3,527
Stock-based compensation expense	665	757
Other	317	190
	$ 5,099	$ 5,949

General and administrative expenses were$5.1 million for the six months ended June 30, 2019, which is a decrease of $0.9 million compared to the same period in 2018. The overall decrease was largely driven by a $1.9 million decrease in in legal, consulting, and other professional expenses, partially offset by a $1.0 million increase in salaries, benefits and related costs.

Legal, consulting and other professional expenses decreased $1.9 million mainly due to a substantial decrease in consulting fees. The consulting costs incurred in the prior year were related to the integration of the acquisitions of TRx and Avadel's pediatric products. The Company has since increased corporate headcount and therefore utilizes less consulting services to meet accounting and reporting requirements. Additionally, $0.9 million of litigation fees incurred in the six months ended June 30, 2018 relate to

arbitration and legal costs related to Lachlan Pharmaceuticals (explained further in Note 13 to the accompanying unaudited financial statements appearing above). Under the terms of the TRx Purchase Agreement, prior to entering into the Lachlan Settlement Agreement in the second quarter of 2019, the former TRx owners were required to indemnify the Company for 100% of all pre-acquisition losses related this arbitration, including legal costs, and possible minimum payments in excess of $1.0 million. The $1.0 million threshold was met in the third quarter of 2018. Stock-based compensation expense decreased $0.1 million for the six months ended June 30, 2019 as compared to the same period in 2018 due to the reversal of the full expense recognized to-date of $0.5 million related to the former CEO's unvested market-based options that were forfeited during the quarter, partially offset by expense recognized for stock options granted to executives in the period and the Company's annual stock option award. These decreases were partially offset by a $1.0 million increase to salaries, benefits and related costs due to an increase in headcount and salary-related costs.

Sales and Marketing Expenses

The following table summarizes our sales and marketing expenses for the six months ended June 30, 2019 and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Salaries, benefits and related costs	$ 3,640	$ 2,629
Logistics, insurance and other commercial operations expenses	683	510
Stock-based compensation expense	280	63
Advertising and marketing expense	1,303	312
Other	140	64
	$ 6,046	$ 3,578

Sales and marketing expenses increased $2.5 million for the six months ended June 30, 2019 as compared to the same period in 2018. Salaries, benefits and related costs increased $1.0 million as a result of increasing sales and sales support personnel needed to maintain and grow our commercial sales activities in connection with the acquisition of TRx and Avadel's pediatric products. Specifically, during the third quarter of 2018, the Company initiated an expansion of the sales force, which was largely completed in the first quarter of 2019. Stock-based compensation expense increased $0.2 million due to an increase in stock option grants during second half of 2018 driven by the sales force expansion as well as the additional expense related to the annual stock option award that was granted on April 1, 2019. Advertising and marketing expenses increased $1.0 million due to an increased focus on advertising and marketing initiatives during the current year to support the portfolio of pediatric drugs.

Amortization Expense

The following table summarizes our amortization expense for the six months ended June 30, 2019 and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Amortization of intangible assets	$ 2,158	$ 2,250

Amortization expense relates to the acquisition of intangible assets as part of the acquisition of TRx in November 2017 and Avadel's pediatric products in February 2018.

Impairment of Intangible Assets

The following table summarizes our expense related to impairment of intangible assets for the six months ended June 30, 2019 and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Impairment of intangible assets	$ 1,449	$ 1,702

The Company recorded expense related to impairment of intangible assets of $1.4 million for the six months ended June 30, 2019 due to the impairment of the Flexichamber intangible asset. During the second quarter of 2019, the Company made a strategic decision to not have its sales force focus its efforts on selling Flexichamber. As a result of this decision paired with significant deviations from forecasted sales, management identified an impairment indicator for Flexichamber during the second quarter of 2019. Accordingly, the Company performed a test for recoverability and concluded that the sum of its estimated future undiscounted cash flows was less than its carrying value. Management then measured the impairment loss by calculating the excess of the carrying amount of Flexichamber over its fair value. Management determined that due to the absence of future material cash flows that the fair value was $0 and therefore the impairment loss equated Flexichamber's carrying amount on June 30, 2019 of $1.4 million.

The Company recorded impairment of intangible asset expense of $1.7 million for the six months ended June 30, 2018 due to the impairment of the PAI sales and marketing agreement intangible asset upon termination of the corresponding agreement.

Change in Fair Value of Contingent Consideration

The following table summarizes our change in fair value of contingent consideration for the six months ended June 30, 2019 and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Change in fair value of contingent consideration	$ (812)	$ 276

The Company recognized a gain on the change in fair value of contingent consideration of $0.8 million for the six months ended June 30, 2019 as compared to a loss of $0.3 million for the same period in 2018. The contingent consideration was related to the potential for future payment of consideration that is contingent upon the achievement of operation and commercial milestones and royalty payments on future product sales as part of the Company's acquisitions of Avadel's pediatric products and TRx. The fair value of contingent consideration was determined at the acquisition date. Subsequent to the acquisition date, at each reporting period, the contingent consideration liability is remeasured at the current fair value with changes recorded in operating expenses in the condensed consolidated statement of operations.

The gain recognized in the current period is largely related to the Company entering into the Lachlan Settlement Agreement during the second quarter of 2019 which released the Company from the potential contingent payments related to the TRx acquisition, thus reducing the fair value down to $0 as of June 30, 2019. This represented a gain on the change of fair value of contingent consideration of $1.3 million for the six months ended June 30, 2019. The gain is partially offset by a $0.5 million loss recognized for the six months ended June 30, 2019 related to the increase in fair value of the contingent consideration related to the future potential royalties on Avadel's pediatric products.

Other Expense, Net

The following table summarizes our other income (expense) for the six months ended June 30, 2019 and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Change in fair value of warrant liability and unit purchase option liability	$ (29)	$ (19)
Other (expense) income, net	(9)	19
Interest expense, net	(408)	(343)
	$ (446)	$ (343)

Other expense, net increased $0.1 million for the six months ended June 30, 2019, as compared to the same period in 2018, which was primarily driven by a $0.1 million increase in net interest expense. The interest expense recognized relates to interest for the Deerfield Obligation assumed as part of the acquisition of Avadel's pediatric products, which took place on February 16, 2018.

Due to the timing of the acquisition, approximately 4.5 months of interest was incurred for the six months ended June 30, 2018 as compared to a full six months for the year ended June 30, 2019.

Income Tax Expense

The provision for income taxes was $0.2 million for the six months ended June 30, 2019 and includes estimated cash taxes and additionally, discrete to the six months ended June 30, 2019, interest and penalties on the outstanding taxes payable to the IRS and various state authorities. The provision for income taxes was immaterial for the six months ended June 30, 2018 and was composed of state income tax for one of the Company's wholly owned subsidiaries.

Liquidity and Capital Resources

In order to meet its cash flow needs, the Company applies a disciplined decision-making methodology as it evaluates the optimal allocation of the Company's resources between investing in the Company's current commercial product line, the Company's development portfolio and acquisitions or in-licensing of new assets. For the six months ended June 30, 2019, Cerecor generated a net loss of $13.7 million and negative cash flow from operations of $9.8 million. As of June 30, 2019, Cerecor had an accumulated deficit of $111.9 million and a balance of $9.4 million in cash and cash equivalents. During the first quarter of 2019, the Company closed an underwritten public offering of common stock for 1,818,182 shares of common stock of the Company, at a price to the public of $5.50 per share ("public price"). Armistice Capital Master Fund Ltd. ("Armistice"), our largest stockholder, participated in the offering by purchasing 363,637 shares of common stock of the Company from the underwriter at the public price. Cerecor director Steven J. Boyd is Armistice's Chief Investment Officer. The net proceeds of the offering were approximately $9.0 million.

The Company plans to use cash and the anticipated cash flows from the Company's existing product sales to offset costs related to its neurology programs, pediatric rare disease programs, business development, costs associated with its organizational infrastructure, and debt principal and interest payments. Cerecor expects to continue to incur significant expenses and operating losses for the immediate future as it continues to invest in the Company's pipeline assets. Our ability to achieve and maintain profitability in the future is dependent on, among other things, the development, regulatory approval, and commercialization of our new product candidates and achieving a level of revenues from our existing product sales adequate to support our cost structure, which includes significant investment in our pipeline assets.

The Company believes it will require additional financing to continue to execute its clinical development strategy and fund future operations. The Company plans to meet its capital requirements through operating cash flows from product sales and some combination of equity or debt financings, collaborations, out-licensing arrangements, strategic alliances, federal and private grants, marketing, distribution or licensing arrangements or the sale of current or future assets. If the Company is not able to secure adequate additional funding, the Company may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible or suspend or curtail planned programs. If the Company raises additional funds through collaborations, strategic alliances or licensing arrangements with third parties, the Company may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates.

Our plan to aggressively develop our pipeline will require substantial cash inflows in excess of what the Company expects our current commercial operations to generate. However, the Company expects that our existing cash and cash equivalents, together with anticipated revenue, will enable us to fund our operating expenses, capital expenditure requirements, and other non-operating cash payments, such as fixed quarterly payments on our outstanding debt balances, through at least August 2020.

Uses of Liquidity

The Company uses cash and the anticipated positive net cash flows from the Company's existing product sales to fund research and development expenses related to its neurology and pediatric rare disease pipelines, business development, costs associated with its organizational infrastructure, and debt principal and interest payments.

Deerfield Debt Obligation

In relation to the Company's acquisition of Avadel's pediatric products on February 16, 2018, the Company assumed an obligation that Avadel had to Deerfield (the "Deerfield Obligation"). Beginning in July 2018 through October 2020, the Company will pay a quarterly payment of $262,500 to Deerfield. In January 2021, a balloon payment of $15,250,000 is due.

Cash Flows

The following table summarizes our cash flows for the six months ended June 30, 2019 and 2018:

	Six Months Ended June 30,	
	2019	2018
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (9,839)	$ (614)
Investing activities	(257)	(26)
Financing activities	8,914	399
Net decrease in cash and cash equivalents	$ (1,182)	$ (241)

Net cash used in operating activities

Net cash used in operating activities was $9.8 million for the six months ended June 30, 2019 and consisted primarily of a net loss of $13.7 million, which was driven by increased research and development activities as the Company continues to fund its pipeline of development assets and also by increased sales and marketing expenses incurred to support commercial sales activities. The net loss was partially offset by non-cash depreciation and amortization of $2.2 million, non-cash impairment of intangible assets of $1.4 million related to the impairment of Flexichamber, non-cash stock-based compensation expense of $1.1 million, and changes in working capital, primarily, a decrease in accrued expenses and other liabilities of $6.3 million offset by a decrease in other receivables of $5.3 million. The decrease in other receivables was driven by the Lachlan Settlement that was entered into during the period that, among other terms, released the former TRx owners of their requirement to indemnify the Company for pre-acquisition Ulesfia losses. The decrease in accrued expenses and other liabilities was also driven by the Lachlan Settlement that also released the Company of all current and future liabilities including minimum purchase obligations and royalties related to the Lachlan Agreement.

Net cash used in operating activities was $0.6 million for the six months ended June 30, 2018 and consisted primarily of a net loss of $9.9 million, offset by non-cash stock-based compensation expense of $0.9 million, depreciation and amortization of $2.3 million, impairment of intangible assets of $1.7 million and changes in working capital, primarily, an increase in accrued expenses of $2.4 million and an increase in accounts payable of $1.6 million.

Net Cash used in investing activities

Net cash used in investing activities was $0.3 million for the six months ended June 30, 2019, an increase of approximately $0.2 million over the six months ended June 30, 2018. The increase was primarily driven by the purchase of property and equipment in connection with the Company occupying its new corporate headquarters during the first quarter of 2019.

Net cash used in investing activities was $25,932 for the six months ended June 30, 2018 and primarily consisted of purchases of property and equipment.

Net Cash provided by financing activities

Net cash provided by financing activities was $8.9 million for the six months ended June 30, 2019 and consisted primarily of net proceeds of approximately $9.0 million from the underwritten public offering of common stock for 1,818,182 shares of common stock of the Company, at a price to the public of $5.50 per share. Additionally, for the six months ended June 30, 2019, the Company received $0.3 million of proceeds from exercise of stock options and warrants and $0.1 million of proceeds from sales of common stock under the employee stock purchase plan. The increase was partially offset by $0.4 million payment of contingent consideration related to the Avadel acquisition.

Net cash provided by financing activities was $0.4 million for the six months ended June 30, 2018 primarily from the proceeds from option and warrant exercises.

Critical Accounting Policies, Estimates, and Assumptions

This Management's Discussion and Analysis of Financial Condition and Results of Operations is based on our unaudited condensed consolidated financial statements, which have been prepared in accordance with GAAP. In preparing the financial statements in conformity with GAAP, the Company makes estimates and assumptions that have an impact on assets, liabilities, revenue and expenses reported. These estimates can also affect supplemental information disclosed by us, including information about contingencies, risk, and financial condition. In our unaudited condensed consolidated financial statements, estimates are

used for, but not limited to, revenue recognition, cost of product sales, stock-based compensation, fair value measurements (including those relating to contingent consideration), cash flows used in management's going concern assessment, income taxes, goodwill, and other intangible assets and clinical trial accruals. The Company believes, given current facts and circumstances, our estimates and assumptions are reasonable, adhere to GAAP and are consistently applied. Inherent in the nature of an estimate or assumption is the fact that actual results may differ from estimates, and estimates may vary as new facts and circumstances arise. Our most critical accounting estimates and assumptions are included in our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC on March 18, 2019 and amended on April 23, 2019.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as defined by applicable SEC rules and regulations.

Recently Adopted Accounting Pronouncements

See Item 1 of Part I, “Notes to Unaudited Financial Statements,” Note 2, of this Quarterly Report on Form 10-Q.

JOBS Act

The JOBS Act contains provisions that, among other things, reduce reporting requirements for an “emerging growth company.” As an emerging growth company, we have elected to not take advantage of the extended transition period afforded by the JOBS Act for the implementation of new or revised accounting standards and, as a result, will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Risk

As a smaller reporting company, we are not required to provide the information required by this Item.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) and Rule 15d-15(b) of the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation as of the end of the period covered by this Quarterly Report on Form 10-Q of the effectiveness of the design and operation of our disclosure controls and procedures. In designing and evaluating our disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of the end of the period covered by this Quarterly Report on Form 10-Q.

Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the period covered by this Quarterly Report on Form 10-Q that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Attestation Report of Registered Public Accounting Firm

The Quarterly Report on Form 10-Q does not include an attestation report of our independent registered public accounting firm due to an exemption established by the JOBS Act for emerging growth companies.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

Lachlan Pharmaceuticals

In November 2017, the Company acquired TRx and its wholly-owned subsidiaries, including Zylera. The previous owners of TRx combined beneficially own more than 10% of our outstanding common stock. Zylera, which is now our wholly owned subsidiary, entered into an agreement with Lachlan Pharmaceuticals, an Irish company controlled by the previous owners of TRx (“Lachlan”), effective December 18, 2015 (the "Lachlan Agreement"). Pursuant to the Lachlan Agreement, Lachlan named Zylera as its exclusive distributor of Ulesfia in the United States and agreed to supply Ulesfia to Zylera exclusively for marketing and sale in the United States. On May 22, 2019, the Company, Lachlan, the owners of Lachlan and Concordia Pharmaceuticals Inc., Sarl (“Concordia”), which is the unrelated third party from which Lachlan obtained rights to distribute Ulesfia, entered into a Settlement Agreement and related side letter and terminated the Lachlan Agreement, as discussed in more detail below (the Settlement Agreement and related side letter collectively the “Settlement”).

The Lachlan Agreement required Zylera to purchase a minimum of 20,000 units per year, or approximately $1.2 million worth of product, from Lachlan, unless and until there was a “Market Change” involving a new successful competitive product. Zylera was required to pay Lachlan $58.84 per unit and handling fees equal to $4.03 per unit of fully packaged Ulesfia in 2019, escalating 10% annually. The Lachlan Agreement also required that Zylera make certain cumulative net sales milestone payments and royalty payments to Lachlan with a $3.0 million annual minimum payment unless and until there was a Market Change. Lachlan was obligated to pay identical amounts to the unrelated third party from which it obtained rights to Ulesfia, with the payments ultimately flowing through Shionogi, Inc. to Summers Laboratories, Inc. ("Summers Labs"). Because of the dispute described below, the Company had not made any payments to Lachlan under the Lachlan Agreement subsequent to the acquisition date.

On December 10, 2016, Zylera informed Lachlan that a Market Change had occurred due to the introduction of Arbor Pharmaceuticals' lice product, Sklice®. On June 5, 2017, Lachlan and Zylera entered into joint legal representation along with other unrelated third parties in negotiation and arbitration of a dispute with Summers Labs regarding the existence of a Market Change and the concomitant obligations of the parties. The arbitration panel issued an interim ruling on October 23, 2018 that no Market Change had occurred up to and including the date of the hearing. The arbitration panel issued a second interim ruling on December 26, 2018, rejecting Summers Labs' request to accelerate future minimum royalties, but ruling in favor of Summers Labs that it is owed reimbursement for all reasonable costs and expenses, including legal fees, by Shionogi, as well as interest, as stipulated in the contract. The arbitration panel issued a final award on March 1, 2019 that dictated the final amount of reimbursable costs and interest. The rulings and final award had no direct bearing on the Company because the Company was not a named defendant to the original claim by Summers Labs and a federal court denied Zylera's ability to be a counterclaimant in the matter. Furthermore, the Company was not subject to the guarantee or interest provisions identified in the second ruling as these elements of the contractual relationship were not passed down to or through Lachlan. However, the Company interpreted the rulings’ impact on the Lachlan Agreement to mean that the minimum purchase obligation and minimum royalty provisions of the contract were active and due for any prior periods as well as future periods.

Prior to the Settlement, the Company had recognized an $8.7 million liability for these minimum obligations in accrued liabilities as of March 31, 2019. Additionally, prior to settlement, under the terms of the TRx Purchase Agreement, the former TRx owners were required to indemnify the Company for 100% of all ”Pre-Acquisition Ulesfia Losses,” as defined in the purchase agreement, related to this arbitration, including legal costs, in excess of $1.0 million. Furthermore, the former TRx owners were required to indemnify the Company for 50% of “Post-Acquisition Ulesfia Losses,” as defined in the purchase agreement, which would include losses resulting from having to fund these minimum obligations post-acquisition. The Company had recorded an indemnity receivable of $5.2 million in other receivables as of March 31, 2019, which the Company believed was fully collectible.

Pursuant to the Settlement, during the second quarter of 2019, the Company made a $2.3 million cash payment to Concordia for a full release of all current and future liabilities related to the Lachlan Agreement. The Settlement also released the former TRx owners of their requirement to indemnify the Company for the losses discussed above. With the termination of the Lachlan Agreement, the Company has given up its right to sell Ulesfia, except for a limited amount of inventory on hand until that inventory is all sold or expired. Additionally, the Settlement released the Company from having to make any acquisition milestone payout for the NDA transfer of Ulesfia and the FDA approval of an alternate dosing.

Item 1A. Risk Factors.

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 18, 2019 and amended on April 23, 2019, which could materially affect our business, financial condition, or future results. Our risk factors as of the date of this Quarterly Report on Form 10-Q have not changed materially from those described in our Annual Report on Form 10-K, as amended. However, the risks described in our Annual Report on Form 10-K are not the only risks facing our company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition, or future results of operations and the trading price of our common stock.

Item 5. Other Information.

On August 8, 2019, the Company entered into an assignment of license agreement (the “Assignment Agreement”) with ES Therapeutics, LLC (“ES Therapeutics”), a wholly-owned subsidiary of Armistice, a significant stockholder of the Company. Pursuant to the Assignment Agreement, the Company assigned and transferred its rights, title, interest, and obligations with respect to CERC-611 to ES Therapeutics. The Company initially licensed the compound from Eli Lilly Company ("Lilly") in September 2016. The Assignment Agreement provides that Armistice will pay the Company an upfront payment of $0.1 million, which is due within 30 days of the effective date of the Assignment Agreement. The Assignment Agreement also contains: (a) a $7.5 million milestone payment to the Company upon cumulative net sales of licensed products reaching $750.0 million; and (b) a $12.5 million milestone payment to the Company upon cumulative net sales of licensed products reaching $1.3 billion. The Assignment Agreement also releases the Company of obligations related to CERC-611, including the $1.3 million contingent payment to Lilly upon the first subject dosage of CERC-611 in a multiple ascending dose study, which is recorded as a license obligation on the balance sheet as of June 30, 2019. The release of this license obligation will result in an offset of research and development expense in the amount of the contingent payment during the third quarter of 2019. The Assignment Agreement also releases the Company from additional potential future payments due to Lilly upon achievement of certain development and commercialization milestones, including the first commercial sale, and milestone payments and royalty on net sales upon commercialization of the compound.

Item 6. Exhibits.

Exhibit Number	Description of Exhibit
10.1#	Employment Agreement, dated April 10, 2019, by and between Cerecor, Inc. and Simon Pedder (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on April 12, 2019).
31.1	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

Management contract or compensatory agreement.

* This certification is being furnished solely to accompany this Quarterly Report pursuant to 18 U.S.C. Section 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

SIGNATURES

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

Cerecor Inc.

Date: August 8, 2019

/s/ Joseph M. Miller

Joseph M. Miller

Chief Financial Officer

(on behalf of the registrant and as the registrant's principal executive officer, principal financial officer and principal accounting officer)

Exhibit 31.1

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

I, Joseph M. Miller, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cerecor 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 8, 2019

/s/ Joseph M. Miller

Joseph M. Miller

Chief Financial Officer

(Registrant's principal executive officer, principal financial officer and principal accounting officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
AND PRINCIPAL FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Cerecor Inc. (the "Registrant") on Form 10-Q for the three and six months ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joseph M. Miller, Chief Financial Officer of the Registrant, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

Date: August 8, 2019

/s/ Joseph M. Miller

Joseph M. Miller

Chief Financial Officer

(Registrant's principal executive officer, principal financial officer and principal accounting officer)

The foregoing certifications are not deemed filed with the Securities and Exchange Commission for purposes of section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), and are not to be incorporated by reference into any filing of Cerecor Inc. under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filing.