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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 September 30, 2018

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.)
400 E. Pratt Street, Suite 606	**(410) 522-8707**
Baltimore, Maryland 21202	(Registrant's telephone number,
(Address of principal executive offices)	including area code)

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

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

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

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 November 6, 2018, the registrant had 40,806,053 shares of common stock outstanding.

CERECOR INC.

FORM 10-Q

For the Quarter Ended September 30, 2018

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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

CERECOR INC. and SUBSIDIARIES

Condensed Consolidated Balance Sheets

	September 30, 2018 (unaudited)	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 6,838,353	$ 2,472,187
Accounts receivable, net	3,008,538	2,935,025
Other receivables	6,264,485	427,241
Escrowed cash receivable	—	3,752,390
Inventory, net	1,064,469	382,153
Prepaid expenses and other current assets	1,260,304	703,225
Restricted cash-current portion	37,027	1,959
Total current assets	18,473,176	10,674,180
Property and equipment, net	92,096	44,612
Intangible assets, net	32,456,075	17,664,480
Goodwill	16,411,123	14,292,282
Restricted cash, net of current portion	179,735	131,353
Total assets	$ 67,612,205	$ 42,806,907
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 1,535,933	$ 1,298,980
Accrued expenses and other current liabilities	18,172,630	7,531,122
Income taxes payable	2,195,048	2,259,148
Long-term debt- current portion	1,050,000	—
Contingent consideration-current portion	1,957,938	—
Total current liabilities	24,911,549	11,089,250
Long term debt, net of current portion	14,352,224	—
Contingent consideration, net of current portion	7,552,537	2,576,633
Deferred tax liability, net	37,990	7,144
License obligations	1,250,000	1,250,000
Other long-term liabilities	—	24,272
Total liabilities	48,104,300	14,947,299
Stockholders' equity:		
Preferred stock—$0.001 par value; 5,000,000 shares authorized at September 30, 2018 and December 31, 2017; zero shares issued and outstanding at September 30, 2018 and December 31, 2017	—	—
Common stock—$0.001 par value; 200,000,000 shares authorized at September 30, 2018 and December 31, 2017; 40,679,634 and 31,266,989 shares issued and outstanding at September 30, 2018 and December 31, 2017, respectively	40,656	31,268
Additional paid-in capital	112,126,404	83,338,136
Contingently issuable shares	—	2,655,464
Accumulated deficit	(92,659,155)	(58,165,260)
Total stockholders' equity	19,507,905	27,859,608
Total liabilities and stockholders' equity	$ 67,612,205	$ 42,806,907

See accompanying notes to the condensed consolidated financial statements.

CERECOR INC. and SUBSIDIARIES

Condensed Consolidated Statements of Operations (Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenues				
Product revenue, net	$ 4,074,786	$ —	$ 13,045,824	$ —
Sales force revenue	—	—	296,875	—
License and other revenue	—	25,000,000	—	25,000,000
Grant revenue	—	37,592	—	579,597
Total revenues, net	4,074,786	25,037,592	13,342,699	25,579,597
Operating expenses:				
Cost of product sales	3,111,290	—	5,397,872	—
Research and development	1,047,877	964,574	3,780,352	2,411,293
Acquired in-process research and development	18,723,952	—	18,723,952	—
General and administrative	1,884,293	2,151,859	7,833,612	4,921,269
Sales and marketing	2,310,760	—	5,889,137	—
Amortization expense	1,065,398	—	3,315,843	—
Impairment of intangible assets	159,687	—	1,861,562	—
Total operating expenses	28,303,257	3,116,433	46,802,330	7,332,562
(Loss) income from operations	(24,228,471)	21,921,159	(33,459,631)	18,247,035
Other (expense) income:				
Change in fair value of contingent consideration, warrant liability and unit purchase option liability	(87,838)	64	(383,179)	(1,586)
Other income	—	—	18,655	—
Interest (expense) income, net	(234,854)	29,387	(577,664)	(53,991)
Total other (expense) income, net	(322,692)	29,451	(942,188)	(55,577)
Net (loss) income before taxes	(24,551,163)	21,950,610	(34,401,819)	18,191,458
Income tax expense	52,412	3,230,000	92,076	3,230,000
Net (loss) income	$(24,603,575)	$ 18,720,610	$(34,493,895)	$ 14,961,458
Net (loss) income per share of common stock, basic and diluted	$ (0.71)	$ 0.52	$ (1.05)	$ 0.65
Weighted-average shares of common stock outstanding, basic	34,648,641	21,382,683	32,749,291	14,952,391
Weighted-average shares of common stock outstanding, diluted	34,648,641	21,407,702	32,749,291	14,960,032

See accompanying notes to the condensed consolidated unaudited financial statements.

CERECOR INC. and SUBSIDIARIES

Condensed Consolidated Statements of Cash Flows (Unaudited)

	Nine Months Ended September 30,	
	2018	**2017**
Operating activities		
Net (loss) income	$ (34,493,895)	$ 14,961,458
Adjustments to reconcile net (loss) income (used in) provided by operating activities:		
Depreciation and amortization	3,333,416	17,050
Impairment of intangible assets	1,861,562	—
Stock-based compensation expense	1,796,387	852,210
Acquired in-process research and development, including transaction costs	18,723,952	—
Deferred taxes	(47,994)	—
Amortization of inventory fair value associated with acquisition of TRx and Avadel Pediatric Products	262,419	—
Non-cash interest expense	327,224	20,365
Change in fair value of warrant liability and unit purchase option liability	22,328	1,586
Change in fair value of contingent consideration	360,850	—
Changes in assets and liabilities:		
Accounts receivable, net	(73,513)	—
Grants receivable	—	102,337
Other receivables	(3,072,729)	—
Inventory, net	(226,735)	—
Prepaid expenses and other assets	27,571	50,228
Escrowed cash receivable	3,752,390	(3,750,803)
Accounts payable	172,243	(697,695)
Income taxes payable	(64,100)	3,230,000
Accrued expenses and other liabilities	6,186,178	341,109
Net cash (used in) provided by operating activities	(1,152,446)	15,127,845
Investing activities		
Acquisition of Avadel Pediatric Products	(1)	—
Cash acquired from the acquisition of Ichorion Therapeutics, Inc.	1,429,876	—
Purchase of property and equipment	(65,057)	(7,990)
Net cash provided by (used in) investing activities	1,364,818	(7,990)
Financing activities		
Proceeds from option and warrant exercises	508,746	—
Proceeds from sale of shares pursuant to private placement, net	3,857,106	4,650,000
Proceeds from sales of common stock under employee stock purchase plan	8,400	35,430
Proceeds from sale of shares under common stock purchase agreement	—	1,693,498
Payment of contingent consideration	(137,008)	—
Principal payments on term debt	—	(2,374,031)
Payment of offering costs	—	(279,246)
Net cash provided by financing activities	4,237,244	3,725,651
Increase in cash, cash equivalents and restricted cash	4,449,616	18,845,506
Cash, cash equivalents, and restricted cash at beginning of period	2,605,499	5,201,897
Cash, cash equivalents, and restricted cash at end of period	$ 7,055,115	$ 24,047,403
Supplemental disclosures of cash flow information		
Cash paid for interest	$ 262,500	$ 72,526

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:

	September 30, 2018	2017
Cash and cash equivalents	$ 6,838,353	$ 23,955,397
Restricted cash, current	37,027	29,159
Restricted cash, non-current	179,735	62,847
Total cash, cash equivalents and restricted cash	$ 7,055,115	$ 24,047,403

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 robust pipeline of innovative therapies in pediatric healthcare, neurology, and orphan rare diseases. The Company's neurology pipeline is led by CERC-301, which is currently in a Phase I safety study for Neurogenic Orthostatic Hypotension ("nOH"). The Company is also developing three other neurological clinical and preclinical stage compounds. The Company's pediatric orphan rare disease pipeline is led by CERC-801, CERC-802 and CERC-803. All three of these compounds are preclinical therapies for inherited metabolic 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") to all three compounds. Under the FDA’s Rare Pediatric Disease Priority Review Voucher ("PRV") program, upon the approval of a new drug application ("NDA") for the treatment of a rare pediatric disease, the sponsor of such application would be eligible for a PRV that can be used to obtain priority review for a subsequent new drug application or biologics license application. The PRV may be sold or transferred an unlimited number of times. The Company expects to file Investigational New Drug ("IND") applications with the FDA for two programs in 2019. Furthermore, 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.

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®, Veripred®, Ulesfia®, Karbinal™ ER, AcipHex® Sprinkle™ and Cefaclor for Oral Suspension. Finally, the Company has one marketed medical device, Flexichamber™.

Cerecor was incorporated in 2011, commenced operations in the second quarter of 2011 and completed an initial public offering in October 2015. 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 million, of which $3.75 million was deposited into a twelve-month escrow to secure indemnification obligations to Janssen. The Company collected the full amount of the escrow in August of 2018. Additionally, there is a potential future $20 million regulatory milestone payment. 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.

On November 17, 2017, the Company acquired TRx Pharmaceuticals, LLC (“TRx”) and its wholly-owned subsidiaries (see "TRx Acquisition" in Note 4 below for a description of the transaction).

On February 16, 2018, Cerecor acquired all rights to Avadel Pharmaceuticals PLC’s (“Avadel”) marketed pediatric products (the “Acquired Products”) for the assumption of certain of Avadel's financial obligations (see "Avadel Pediatric Products Acquisition" in Note 4 below for a description of the 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 4 below for a description of the transaction).

Liquidity

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 in order to meet its cash flow needs. For the nine months ended September 30, 2018, Cerecor generated a net loss of $34.5 million and negative cash flow from operations of $1.2 million. As of September 30, 2018, Cerecor had an accumulated deficit of $92.7 million and a balance of $6.8 million in cash and cash equivalents. The Company plans to use this cash and the anticipated positive net cash flows from the Company's existing product sales to offset costs related to its pediatric rare disease preclinical programs, clinical development for our neurology 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. 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.

The Company believes it will require additional financing to continue to execute its clinical development strategy and/or 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, including our recently acquired pediatric rare disease preclinical programs, will require substantial cash inflows in excess of what the Company expects our current commercial operations to generate. The Company expects that our existing cash and cash equivalents, together with the proceeds from the execution of management's plan to complete one or more financings through the issuance of equity, which could be completed with the Company's majority owner, if necessary, and/or through the out-licensing or sale of current or future assets on or before May 2019, will enable us to fund our operating expenses, capital expenditure requirements, and other non-operating cash payments such as principal payments on our outstanding debt balances through at least November 2019.

2. 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 (the "FASB").

In the opinion of management, the accompanying unaudited condensed consolidated financial statements include all adjustments, consisting of normal recurring adjustments that are necessary to present fairly the Company's financial position, results of operations and cash flows. The condensed consolidated balance sheet at December 31, 2017 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 or any other future period. 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.

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, 2017 audited consolidated financial statements.

Reclassification

During 2018, the Company concluded that going forward it would net amounts due to distributors against open receivable balances. The company has reclassified $0.3 million from accrued expenses and other current liabilities to accounts receivable, net in the December 31, 2017 balance sheet to conform with current period presentation.

Principles of Consolidation

The condensed consolidated financial statements include the accounts of Cerecor Inc. and its wholly-owned subsidiaries after elimination of all intercompany balances and transactions.

Variable Interest Entities

The primary beneficiary of a variable interest entity ("VIE") must consolidate the related assets and liabilities. Certain disclosures are required by sponsors, significant interest holders in VIEs and potential VIEs. The Company regularly assesses its relationships with contractual third party and other entities for potential VIEs. In making this assessment, the Company considers the potential that its contracts or other arrangements provide subordinated financial support, absorb losses or rights to residual returns of the entity and the

ability to directly or indirectly make decisions about the entities' activities. Based on the Company's assessments performed, management concluded that there were no relationships that constitute a VIE for which the Company was determined to be the primary beneficiary at September 30, 2018. If the Company's management makes the determination that it is the primary beneficiary of a VIE, the Company will consolidate the statements of operations and financial condition of the VIE into its condensed consolidated financial statements.

Fair Value Measurements

Fair value is a market-based measurement, not an entity-specific measurement. The objective of a fair value measurement is to estimate the price to sell an asset or transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions. Such transactions to sell an asset or transfer a liability are assumed to occur in the principal market for that asset or liability, or in the absence of the principal market, the most advantageous market for the asset or liability.

Assets and liabilities subject to fair value measurement disclosures are required to be classified according to a three-level fair value hierarchy with respect to the inputs (or assumptions) used to determine fair value. The level in which an asset or liability is disclosed within the fair value hierarchy is based on the lowest level input that is significant to the related fair value measurement in its entirety. The guidance under the fair value measurement framework applies to other existing accounting guidance in the FASB codification that requires or permits fair value measurements. Refer to related disclosures in Note 5, Fair Value Measurements.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures. On an ongoing basis, management evaluates its estimates, including estimates related to but not limited to, revenue recognition, share-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 bases its estimates on historical experience and other market-specific or other relevant assumptions that it believes to be reasonable under the circumstances. Actual results may differ from those estimates or assumptions.

Net Income (Loss) per Share, Basic and Diluted

Earnings per share are computed using the two-class method. The two-class method of computing earnings per share is an earnings allocation formula that determines earnings per share for common stock and any participating securities according to dividends declared (whether paid or unpaid) and participation rights in undistributed earnings. Shares of the unexercised warrants issued in the Armistice private placement (See Note 9) in 2017 are considered participating securities because these warrants contain a non-forfeitable right to dividends irrespective of whether the warrants are ultimately exercised. Under the two-class method, earnings per common share for the common stock and participating warrants are computed by dividing the sum of distributed earnings to common shareholders and undistributed earnings allocated to common shareholders by the weighted-average number of shares of common stock and participating warrants outstanding for the period. In applying the two-class method, undistributed earnings are allocated to common stock and participating warrants based on the weighted-average shares outstanding during the period. As the warrants issued in the Armistice transaction do not share in net losses of the Company, they are excluded from weighted average shares and warrants outstanding during periods of net loss.

Diluted net income (loss) 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 issued under the Company's long-term incentive plans, 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 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 addition, net losses are not allocated to the participating securities.

Contingently issuable shares are included in the calculation of basic income (loss) per share as of the beginning of the period in which all the necessary conditions have been satisfied. Contingently issuable shares are included in diluted net income (loss) per share based on the number of shares, if any, that would be issuable under the terms of the arrangement if the end of the reporting period was the end of the contingency period, if the results are dilutive.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. The carrying amounts reported in the balance sheets for cash and cash equivalents are valued at cost, which approximates their fair value.

Escrowed Cash Receivable

On August 14, 2017, the Company sold all of its rights to CERC-501 to Janssen in exchange for initial gross proceeds of $25 million, of which $3.75 million was deposited into a twelve-month escrow to secure certain indemnification obligations to Janssen. The Company collected the full escrow amount in August of 2018.

Restricted Cash

Restricted cash consists of the 2016 Employee Stock Purchase Plan deposits, credit card deposits, landlord deposits and payroll processing deposits. The Company has a $125,000 deposit with ADP to facilitate payroll processing, which will be returned to the company upon termination of the service or a restructuring of the agreement. In exchange for receiving business credit card services from Silicon Valley Bank, the Company deposited $50,000 as collateral with Silicon Valley Bank. This amount will remain deposited with Silicon Valley Bank for the duration the business credit card services are used by the Company. These deposits are recorded as restricted cash, net of current portion on the balance sheet as of September 30, 2018 and December 31, 2017. The remaining restricted cash balance relates to the 2016 Employee Stock Purchase Plan. The Company established the Employee Stock Purchase Plan in 2016 (the "Plan"). Eligible employees can purchase common stock through accumulated payroll deductions at such times as are established by the Plan administrator. Deposits made by employees for potential future stock purchases are recorded as restricted cash.

The Company adopted ASU 2016-18 effective January 1, 2018 and now includes restricted cash balances within the cash, cash equivalents and restricted cash balance on the statement of cash flows. All prior periods were retrospectively adjusted to conform to the current period presentation.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily cash and cash equivalents. The Company maintains a portion of its cash and cash equivalent balances in the form of a money market account with a financial institution that management believes to be creditworthy. The Company has no financial instruments with off-balance sheet risk of loss.

Inventory

Inventory consists primarily of finished goods stated at the lower of cost or net realizable value, with cost determined on a first-in, first-out basis. The Company reviews the composition of inventory at each reporting period in order to identify obsolete, slow-moving, quantities in excess of expected demand, or otherwise non-saleable items. If non-saleable items are observed and there are no alternate uses for the inventory, the Company will record a write-down to net realizable value in the period that the decline in value is first recognized. These valuation adjustments are recorded based upon various factors for the Company’s products, including the level of product manufactured by the Company, the level of product in the distribution channel, current and projected product demand, the expected shelf life of the product and firm inventory purchase commitments.

Goodwill

Goodwill relates to the amount that arose in connection with the acquisitions of TRx and Avadel's pediatric products. Goodwill represents the excess of the purchase price over the fair value of the net assets acquired when accounted for using the acquisition method of accounting for business combinations. Goodwill is not amortized but is evaluated for impairment on an annual basis or more frequently if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of the Company's reporting unit below its carrying amount. The company consists of one reporting unit.

Intangible Assets

Intangible assets with definite useful lives are amortized over their estimated useful lives and reviewed for impairment if certain events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Intangible assets subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an intangible

asset might not be recoverable. Impairment losses are measured and recognized to the extent the carrying value of such assets exceeds their fair value.

Contingent Consideration

Some of the Company's business acquisitions involve the potential for future payment of consideration that is contingent upon the achievement of operational and commercial milestones and royalty payments on future product sales. The preliminary fair value of contingent consideration liabilities was determined at the acquisition date using unobservable level 3 inputs. These inputs include 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 liability is remeasured at current fair value with changes recorded in the condensed consolidated statements of operations.

License and Other Revenue

The Company recognizes revenues from collaboration, license or other research or sale arrangements when or as performance obligations are satisfied. For milestone payments, the Company assesses, at contract inception, whether the milestones are considered probable of being achieved. If it is probable that a significant revenue reversal will occur, the Company will not record revenue until the uncertainty has been resolved. Milestone payments that are contingent upon regulatory approval are not considered probable of being achieved until the approvals are obtained as it is outside the control of the Company. If it is probable that a significant revenue reversal will not occur, the Company will estimate the milestone payments using the most likely amount method. The Company will re-assess the milestones each reporting period to determine the probability of achievement.

Grant Revenue

Grant revenues are derived from government grants that support the Company's efforts on specific research projects. The Company determined that the government agencies providing grants to the Company are not our customers. The Company recognizes grant revenue when there is reasonable assurance of compliance with the conditions of the grant and reasonable assurance that the grant revenue will be received.

Product Revenues, net

The Company generates substantially all of its revenue from sales of prescription pharmaceutical products to its customers and has identified a single product delivery performance obligation, which is the provision of prescription pharmaceutical products to its customers based upon Master Service Agreements in place with wholesaler distributors, purchase orders from retail pharmacies or other direct customers and a contractual arrangement with a specialty pharmacy. The performance obligation is satisfied at a point in time, when control of the product has been transferred to the customer, either at the time the product has been received by the customer or to a lesser extent when the product is shipped. The Company determines the transaction price based on fixed consideration in its contractual agreements and the transaction price is allocated entirely to the performance obligation to provide pharmaceutical products. In determining the transaction price, a significant financing component does not exist because the timing from when the Company delivers product to when the customers pay for the product is less than one year and the customers do not pay for product in advance of the transfer of the product.

Revenues from sales of products are recorded net of any variable consideration for estimated allowances for returns, chargebacks, distributor fees, prompt payment discounts, government rebates and other common gross-to-net revenue adjustments. The identified variable consideration is recorded as a reduction of revenue at the time revenues from product sales are recognized. The Company recognizes revenue only to the extent that it is probable that a significant revenue reversal will not occur in a future period.

Provisions for returns and government rebates are included within current liabilities in the condensed consolidated balance sheet. Provisions for prompt payment discounts and distributor fees, are included as a reduction to accounts receivable. Calculating these items involves estimates and judgments based on sales or invoice data, contractual terms, historical utilization rates, new information regarding changes in these programs' regulations and guidelines that would impact the amount of the actual rebates, our expectations regarding future utilization rates for these programs, and channel inventory data. These estimates may differ from actual consideration amount received and the Company will re-assess these estimates and judgments each reporting period to adjust accordingly.

The following table presents net revenues disaggregated by type:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Prescribed dietary supplements	$ 2,096,851	$ —	$ 5,766,642	$ —
Prescription drugs	1,977,935	—	7,279,182	—
Sales force revenue	—	—	296,875	—
License and other revenue	—	25,000,000	—	25,000,000
Grant revenue	—	37,592	—	579,597
Total revenue	$ 4,074,786	$25,037,592	$ 13,342,699	$25,579,597

Concentration with Customer

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 September 30, 2018, the Company's three largest customers accounted for approximately 34%, 31% and 27%, respectively, of the Company's total net product revenues from sale of prescription pharmaceutical products. For the nine months ended September 30, 2018, the Company's three largest customers accounted for approximately 30%, 30% and 24%, respectively, of the Company's total net product revenues from sale of prescription pharmaceutical products.

Returns and Allowances

Consistent with industry practice, the Company maintains a return policy that allows customers to return product within a specified period both prior to and, in certain cases, subsequent to the product's expiration date. The Company's return policy generally allows customers to receive credit for expired products within six months prior to expiration and within one year after expiration. The provision for returns and allowances consists of estimates for future product returns and pricing adjustments. The primary factors considered in estimating potential product returns include:

- the shelf life or expiration date of each product;
- historical levels of expired product returns;
- external data with respect to inventory levels in the wholesale distribution channel;
- external data with respect to prescription demand for the Company's products; and
- the estimated returns liability to be processed by year of sale based on analysis of lot information related to actual historical returns.

The Company's estimate for returns and allowances may be impacted by a number of factors, but the principal factor relates to the level of inventory in the distribution channel.

Distribution Fees and Rebates

Consistent with pharmaceutical industry practices, the Company establishes contracts with wholesalers that provide for Distribution Service Fees ("DSA fees"). Settlement of DSA fees generally occur on a monthly or quarterly basis based on net sales for the period. DSA fee accruals are based on contractual fees to be paid to the wholesaler distributors applied to purchases of our products.

The Company is also subject to rebates on sales made under governmental pricing programs. For example, Medicaid rebates are amounts owed based upon contractual agreements or legal requirements with public sector (Medicaid) benefit providers after the final dispensing of the product by a pharmacy to a benefit plan participant. Medicaid reserves are based on expected payments, which are driven by patient usage, contract performance and field inventory that will be subject to a Medicaid rebate. Medicaid rebates are typically billed up to 180 days after the product is shipped, however can be as much as 270 days after the quarter in which the product is dispensed to the Medicaid participant. In addition to the estimates mentioned above, the Company's calculation also requires other estimates, such as estimates of sales mix, to determine which sales are subject to rebates and the amount of such rebates. Periodically, the Company adjusts the Medicaid rebate provision based on actual claims paid. Due to the delay in billing, adjustments to actual claims paid may incorporate revisions of this provision for several periods. Because Medicaid pricing programs involve particularly difficult interpretations of complex statutes and regulatory guidance, our estimates could differ from actual experience.

In determining estimates for these rebates, the Company considers the terms of the contracts, relevant statutes, historical relationships of rebates to revenues, past payment experience, estimated inventory levels and estimated future trends.

Chargebacks and Sales Discounts

Chargeback accruals are based on the differentials between product acquisition prices paid by wholesalers and lower government contract pricing paid by eligible customers covered under federally qualified programs. Sales discounts accruals are based on payment terms extended to customers.

Sales Force Revenue

Pursuant to a Marketing Agreement with Pharmaceutical Associates, Inc. (“PAI”), the Company received a monthly marketing fee to promote, market and sell certain products on behalf of PAI. The Company also received a matching fee payment for each month of the term of the Marketing Agreement if certain provisions calculated in accordance with the terms and inputs set forth in the Marketing Agreement are met. Marketing fees and any matching payments are recognized as sale force revenue when all the performance obligations have been satisfied, as earned on a monthly basis. The Marketing Agreement with PAI was terminated in April 2018.

Accounting Policy Elections

The Company elected the following practical expedients in applying Topic 606 to its identified revenue streams:

- Portfolio approach - contracts within each revenue stream have similar characteristics and the Company believes this approach would not differ materially than if applying Topic 606 to each individual contract.
- Modified retrospective approach - the Company applied Topic 606 only to contracts with customers that were not completed at the date of initial application, January 1, 2018.
- Significant financing component - the Company does not adjust the promised amount of consideration for the effects of a significant financing component as the Company expects, at contract inception, that the period between when the Company transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less.
- Shipping and handling activities - the Company considers any shipping and handling costs that are incurred after the customer has obtained control of the product as a cost to fulfill a promise and will account for them as an expense.
- Contract costs - the Company recognizes the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that the Company otherwise would have recognized is one year or less.

The Company does not incur costs to obtain a contract or costs to fulfill a contract that would result in the capitalization of contract costs. Specifically, internal sales commissions are costs to fulfill a contract and are expensed in the same period that revenue is recognized, which is typically within the same quarterly reporting period. Contract costs are expensed or amortized in “Operating expenses” on the accompanying Condensed Consolidated Statements of Operations.

The Company has not made significant changes to the judgments made in applying ASU 2014-09, *Revenue from Contracts with Customers* (Topic 606) ("ASU 2014-09") for the three and nine months ended September 30, 2018.

Cost of Product Sales

Cost of product sales is comprised of (i) costs to acquire products sold to customers, (ii) royalty, license payments and other agreements granting the Company rights to sell related products, (iii) distribution costs incurred in the sale of products, (iv) the value of any write-offs of obsolete or damaged inventory that cannot be sold, (v) minimum sale obligations and (vi) minimum purchase obligations. The Company acquired the rights to sell certain of its commercial products through license and assignment agreements with the original developers or other parties with interests in these products. These agreements obligate the Company to make payments under varying payment structures based on its net revenue from related products.

Shipping, Handling, and Freight

The Company includes the cost of shipping, handling, and freight associated with product sales as part of cost of goods sold.

Research and Development Expenses

Research and development costs are expensed as incurred. These costs include, but are not limited to, employee-related expenses, including salaries, benefits and stock-based compensation of research and development personnel; expenses incurred under agreements

with contract research organizations and investigative sites that conduct clinical trials and preclinical studies; the cost of acquiring, developing and manufacturing clinical trial materials; other supplies; facilities, depreciation and other expenses, such as direct and allocated expenses for rent, utilities and insurance; and costs associated with preclinical activities, regulatory operations, pharmacovigilance, quality and travel.

Costs for certain development activities, such as clinical trials, are recognized based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations, or information provided to the Company by its vendors, such as clinical research organizations, with respect to their actual costs incurred. Payments for these activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred, and are reflected in the financial statements as prepaid or accrued research and development expense, as the case may be.

Acquired In-Process Research and Development Expenses

Acquired in-process research and development ("IPR&D") expense includes the initial costs of IPR&D projects, acquired directly in a transaction other than a business combination, that do not have an alternative future use.

Sales and Marketing Expenses

Sales and marketing expenses consist primarily of professional fees, contractual fees, advertising and marketing cost and salaries, benefits and related costs for sales and sales support personnel, including stock-based compensation and travel expenses.

Amortization Expense

Amortization expense includes the amortization of the Company's acquired intangible assets. There is no amortization expense included in cost of product sales or sales and marketing expense as all amortization expense is included within its own standalone line in operating expenses in the Company's condensed consolidated statements of operations.

Impairment of Intangible Assets

Impairment of Intangible assets includes any impairment charges related to the Company's acquired intangible assets.

Comprehensive Loss

Comprehensive loss is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss was equal to net loss for all periods presented.

Income Taxes

The Company accounts for income taxes under the asset and liability method in accordance with ASC 740, Income Taxes (“ASC 740”). Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Deferred tax assets primarily include net operating loss and tax credit carryforwards, accrued expenses not currently deductible and the cumulative temporary differences related to certain research and patent costs. Certain tax attributes, including net operating losses and research and development credit carryforwards, may be subject to an annual limitation under Sections 382 and 383 of the Internal Revenue Code (the "Code"). See Note 11 for further information. The portion of any deferred tax asset for which it is more likely than not that a tax benefit will not be realized must then be offset by recording a valuation allowance. The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not to be sustained upon examination based on the technical merits of the position. The amount for which an exposure exists is measured as the largest amount of benefit determined on a cumulative probability basis that the Company believes is more likely than not to be realized upon ultimate settlement of the position. The Company’s policy is to record interest and penalties on uncertain tax positions as income tax expense. As of September 30, 2018, the Company did not believe any material uncertain tax positions were present.

On December 22, 2017, the “Tax Cuts and Jobs Act” ("TCJA") was enacted, that significantly reforms the Internal Revenue Code of 1986, as amended. The TCJA, among other things, includes changes to U.S. federal tax rates, imposes significant additional limitations on the deductibility of interest and net operating loss carryforwards, allows for the expensing of capital expenditures, and puts into effect the migration from a “worldwide” system of taxation to a territorial system. See Note 11 below for further discussion related to the tax impact to the Company.

Stock-Based Compensation

The Company applies the provisions of ASC 718, Compensation—Stock Compensation ("ASC 718"), which requires the measurement and recognition of compensation expense for all stock-based awards made to employees and non-employees, including employee stock options, in the statements of operations.

For stock options issued to employees and members of the board of directors for their services, the Company estimates the grant date fair value of each option using the Black-Scholes option pricing model. The use of the Black-Scholes option pricing model requires management to make assumptions with respect to the expected term of the option, the expected volatility of the common stock consistent with the expected life of the option, risk-free interest rates and expected dividend yields of the common stock. For awards subject to service-based vesting conditions, including those with a graded vesting schedule, the Company recognizes stock-based compensation expense equal to the grant date fair value of stock options on a straight-line basis over the requisite service period, which is generally the vesting term. Forfeitures are recorded as they are incurred as opposed to being estimated at the time of grant and revised.

For stock option grants with market-based conditions, compensation expense is recognized ratably over the attribution period. The Company estimates the fair value of the market-based stock option grants using a Monte-Carlo simulation. The Company generally estimates fair value using assumptions, including the risk-free interest rate, the expected volatility of a peer group of similar companies, the expected term of the awards and the expected dividend yield. The expected term for market-based stock option awards is based on the expected term calculated using a Monte-Carlo simulation. These estimates involve inherent uncertainties and the application of management's judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future.

For stock options issued to non-employees, the Company initially measures the options at their grant date fair values and revalues as the underlying equity instruments vest and are recognized as expense over the earlier of the period ending with the performance commitment date or the date the services are completed in accordance with the provisions of ASC 718 and ASC 505-50, Equity-Based Payments to Non-Employees ("ASC 505-50").

Clinical Trial Expense Accruals

As part of the process of preparing its financial statements, the Company is required to estimate its expenses resulting from its obligations under contracts with vendors, clinical research organizations and consultants and under clinical site agreements in connection with conducting clinical trials. The financial terms of these contracts are subject to negotiations, which vary from contract to contract and may result in payment flows that do not match the periods over which materials or services are provided under such contracts. The Company's objective is to reflect the appropriate trial expenses in its financial statements by matching those expenses with the period in which services are performed and efforts are expended. The Company accounts for these expenses according to the progress of the trial as measured by subject progression and the timing of various aspects of the trial. The Company determines accrual estimates by taking into account discussion with applicable personnel and outside service providers as to the progress or state of consummation of trials, or the services completed. During the course of a clinical trial, the Company adjusts its clinical expense recognition if actual results differ from its estimates. The Company makes estimates of its accrued expenses as of each balance sheet date based on the facts and circumstances known to it at that time. The Company's clinical trial accruals are dependent upon the timely and accurate reporting of contract research organizations and other third-party vendors. Although the Company does not expect its estimates to be materially different from amounts actually incurred, its understanding of the status and timing of services performed relative to the actual status and timing of services performed might vary and might result in it reporting amounts that are too high or too low for any particular period.

Segment Information

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision-making group, in making decisions on how to allocate resources and assess performance. The Company's chief operating decision maker is currently represented by the Company's management team and consists of the Company's Chief Executive Officer and Chief Financial Officer. The Company and the management team view the Company's operations and manage its business as one operating segment. All long-lived assets of the Company reside in the United States. The Company and the management team view the Company's operations and manage its business as one operating segment.

Recently Adopted Accounting Pronouncements

Adoption of ASC 606

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* (Topic 606) ("ASU 2014-09"). Topic 606, along with amendments issued in 2015, 2016 and 2017, supersedes the revenue recognition requirements in Topic 605, *Revenue Recognition*, including most industry-specific revenue recognition guidance throughout the Industry Topics of the Accounting Standards Codification. ASU 2014-09 provides a comprehensive new revenue recognition model that requires a company to recognize revenue to depict the transfer of goods or services to a customer in an amount that reflects the consideration it expects to receive in exchange for those goods or services. On January 1, 2018, the Company adopted the new revenue recognition standard for all contracts not completed as of the adoption date using the modified retrospective method. The implementation of the new revenue recognition standard did not have a material quantitative impact on the Company's condensed consolidated financial statements as the timing of revenue recognition for product sales did not significantly change. In addition, the Company did not have a material cumulative effect adjustment to Accumulated deficit upon adoption of the new revenue recognition standard on January 1, 2018. The information presented for the periods prior to January 1, 2018 has not been restated and is reported under Topic 605.

The Company recognizes revenue when its performance obligations with its customers have been satisfied. At contract inception, the Company determines if a contract is within the scope of Topic 606 and then evaluates the contract using the following five steps: (1) identify the contract with the customer; (2) identify the performance obligations; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations; and (5) recognize revenue when (or as) the entity satisfies a performance obligation.

Other Adopted Accounting Pronouncements

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business* ("ASU 2017-01"). The standard provides guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. If substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single asset or a group of similar assets, the assets acquired (or disposed of) are not considered a business. ASU 2017-01 is effective for fiscal periods beginning after December 15, 2017 (including interim periods within those periods) with early adoption permitted. The Company adopted this standard on January 1, 2018.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation-Stock Compensation (Topic 718) - Scope of Modification Accounting* ("ASU 2017-09") to clarify when to account for a change to the terms or conditions of a share-based payment award as a modification. Under the new guidance, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. The guidance is effective prospectively for all companies for annual periods and interim periods within those annual periods, beginning on or after December 15, 2017. The adoption of this standard on January 1, 2018 did not have a significant impact on the Company's financial statements.

In November 2016, the FASB issued ASU No. 2016-18, *Restricted Cash ("*ASU 2016-18"*)*. The guidance is intended to address the diversity that currently exists in the classification and presentation of changes in restricted cash on the statement of cash flows. The new standard requires that entities show the changes in the total of cash and cash equivalents, restricted cash and restricted cash equivalents on the statement of cash flows and no longer present transfers between cash and cash equivalents, restricted cash and restricted cash equivalents on the statement of cash flows. The new standard is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company adopted this standard on January 1, 2018. Upon adoption of ASU 2016-18 the Company applied the retrospective transaction method for each period presented and included $0.1 million of restricted cash in the beginning period cash, cash equivalents and restricted cash balance. The September 30, 2017 statement of cash flows has been updated to include $0.1 million of restricted cash.

In October 2016, the FASB issued ASU No. 2016-16, "*Income Taxes (Topic 740), Intra-Entity Transfers of Assets Other Than Inventory*" ("ASU 2016-16"), which requires companies to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. ASU 2016-16 is effective for annual reporting periods, and interim periods therein, beginning after December 15, 2017. The adoption of this standard on January 1, 2018 did not have a significant impact on the Company's financial statements.

In August 2016, the FASB issued ASU No. 2016-15 *Statement of Cash Flows, Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"), which reduces existing diversity in the classification of certain cash receipts and cash payments on the statements of cash flows. ASU 2016-15 is effective for fiscal years beginning after December 15, 2017, and for interim periods within those fiscal years. The adoption of this standard on January 1, 2018 did not have a significant impact on the Company's financial statements.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, *Leases* (Topic 842) ("ASU 2016-02"). This guidance revises existing practice related to accounting for leases under ASC No. 840, *Leases* ("ASC 840") for both lessees and lessors. The new guidance in ASU 2016-02 requires lessees to recognize a right-of-use 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 capital leases. For lessees, operating leases will result in straight-line expense (similar to current accounting by lessees for operating leases under ASC 840) while capital leases will result in a front-loaded expense pattern (similar to current accounting by lessees for capital leases under ASC 840). The new standard is effective for the Company beginning January 1, 2019. In July 2018, the FASB issued both codification improvements, which clarify how to apply certain aspects of the standard, and an update to the transition methods allowable. Companies can either adopt the new standard at the earliest period presented using a modified retrospective approach or continue to apply the guidance under the current lease standard in the comparative periods presented. Companies that elect this option would record a cumulative-effect adjustment to the opening balance of retained earnings on the date of adoption, if necessary. The Company expects to apply the new guidance at the effective date, without adjusting the comparative periods. The Company anticipates that ASU 2016-02 will have an impact to our condensed consolidated balance sheet, as the Company will record an asset and a liability in connection with our leased office space. The Company does not expect an impact to our condensed statement of operations. The Company is in the process of identifying its lease agreements that will be impacted by the new standard and is currently further evaluating the overall impact to our condensed consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04 "*Intangibles-Goodwill and Other (Topic 350)*: *Simplifying the Test for Goodwill Impairment*" ("ASU 2017-04"). ASU-2017 eliminates step two of the goodwill impairment test and specifies that goodwill impairment should be measured by comparing the fair value of a reporting unit with its carrying amount. Additionally, the amount of goodwill allocated to each reporting unit with a zero or negative carrying amount of net assets should be disclosed. ASU 2017-04 is effective for annual or interim goodwill impairment tests performed in fiscal years beginning after December 15, 2019 and early adoption is permitted. The standard will be applied prospectively. The Company is currently evaluating the potential impact of the adoption of this standard on its financial statements.

3. Net Income (Loss) Per Share of Common Stock, Basic and Diluted

The following table sets forth the computation of basic and diluted net loss per share of common stock for the three and nine months ended September 30, 2018 and 2017, which includes both classes of participating securities:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Basic (loss) income per share:				
Net (loss) income	$ (24,603,575)	$ 18,720,610	$ (34,493,895)	$ 14,961,458
Undistributed (loss) earnings allocable to common shares	$ (24,603,575)	$ 18,720,610	$ (34,493,895)	$ 14,961,458
Weighted average shares, basic				
Common stock	34,648,641	21,382,683	32,749,291	14,952,391
Participating warrants	—	14,285,714	—	8,163,265
	34,648,641	35,668,397	32,749,291	23,115,656
Basic (loss) income per share:				
Common stock	$ (0.71)	$ 0.52	$ (1.05)	$ 0.65
Participating warrants	$ —	$ 0.52	$ —	$ 0.65

Diluted (loss) income per share:				
Net (loss) income	$ (24,603,575)	$ 11,222,732	$ (34,493,895)	$ 9,677,838
Net income reallocated	—	5,256	—	1,746
Undistributed (loss) earnings allocable to common shares	$ (24,603,575)	$ 11,227,988	$ (34,493,895)	$ 9,679,584
Weighted average shares, basic	34,648,641	21,382,683	32,749,291	14,952,391
Effect of dilutive securities				
Stock options	—	25,019	—	7,641
Weighted average number of shares - diluted	34,648,641	21,407,702	32,749,291	14,960,032
Diluted (loss) income per share:	$ (0.71)	$ 0.52	$ (1.05)	$ 0.65

The following outstanding securities at September 30, 2018 and 2017 have been excluded from the computation of diluted weighted shares outstanding, as they could have been anti-dilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Stock options	4,119,187	2,384,560	4,119,187	2,401,938
Warrants on common stock	18,905,064	4,661,145	18,905,064	4,661,145
Restricted Stock Awards	445,000	—	445,000	—
Underwriters' unit purchase option	40,000	40,000	40,000	40,000

4. 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 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 are subject to a lockup date through December 31, 2019. Consideration for the Ichorion Asset Acquisition included certain development milestones in the future worth up to an additional $15 million, payable either in shares of Company 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 million using the Company's stock price close on September 24th 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 acquired IPR&D expense is not tax deductible. The $0.2 million of transaction costs incurred were recorded to Acquired In-Process Research and Development expense. The assembled workforce asset recorded to intangible assets will be amortized over an estimated useful life of two years.

The contingent consideration related to the development milestones will be recognized if and when such milestones are probable and can be reasonably estimated.

Acquisitions of Businesses

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 a cash payment of one dollar. In addition, the Company assumed existing seller debt due in January 2021 with a fair value of $15.1 million and contingent consideration, referred to as Deferred payments, relating to royalty obligation 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 has currently 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 is 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. Transaction costs of $0.1 million were included as general and administrative expense in the condensed consolidated statements of operations for the nine months ended September 30, 2018.

During the second quarter of 2018, the Company identified and recorded measurement period adjustments to our preliminary purchase price allocation. These adjustments are reflected in the tables below. If the measurement period adjustments were reflected in the first quarter 2018 Form 10-Q it would have increased operating expenses by $0.3 million consisting primarily of increases to cost of product sales of $0.2 million and sales and marketing expense of $0.1 million. 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 the third quarter of 2018.

The following table summarizes the preliminary fair values of the assets acquired and liabilities assumed at the date of acquisition both as disclosed in the first quarter 2018 Form 10-Q and as adjusted for measurement period adjustments identified during the second quarter:

	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 and deferred payments	(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

Based on valuation estimates utilizing the estimated sales price of inventory less sales and marketing costs and an allowance for profit, a step-up in the value of inventory of $0.3 million was recorded in the opening balance sheet, of which approximately $0.1 million was charged to cost of goods sold during the post-acquisition period, February 16, 2018 through September 30, 2018.

The purchase price allocation has been prepared on a preliminary basis and is subject to change as additional information becomes available concerning the fair value and tax basis of the assets acquired and liabilities assumed. Any adjustments to the purchase price allocation will be made as soon as practicable but no later than one year from the February 16, 2018 acquisition date.

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 preliminary fair value of

intangible assets both as disclosed in the first quarter 2018 Form 10-Q and as adjusted by measurement period adjustments identified during the second quarter includes the following:

	At February 16, 2018 (preliminary)	Measurement Period Adjustments	At February 16, 2018 (as adjusted)	Useful Life
Acquired Product Marketing Rights - Karbinal	$ 6,221,000	$ (21,000)	$ 6,200,000	16 years
Acquired Product Marketing Rights - AcipHex	2,520,000	283,000	2,803,000	10 years
Acquired Product Marketing Rights - Cefaclor	6,291,000	1,320,000	7,611,000	7 years
Acquired Developed Technology - Flexichamber	1,131,000	546,000	1,677,000	10 years
Acquired IPR&D - LiquiTime formulations	290,000	(290,000)	—	Indefinite
Total	**$ 16,453,000**	**$ 1,838,000**	**$ 18,291,000**	

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 consists 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 were 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 condensed 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. If the measurement period adjustments were reflected in prior periods it would have decreased general and administrative expenses by $1.0 million, decreased other expense for the change in fair value of contingent consideration by $0.3 million, increased the impairment of intangible assets by $0.2 million, increased intangible amortization expense by $0.1 million and decreased income tax expense by $0.1 million. The measurement period adjustments were the result of an arbitration ruling discussed in further detail in Note 7, 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 prior periods and as adjusted for measurement period adjustments identified during the current quarter:

	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 prior periods and as adjusted for measurement period adjustments identified during the current quarter:

	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

Based on valuation estimates utilizing the estimated selling price of inventory less sales and marketing costs and an allowance for profit, a step-up in the value of inventory of $0.2 million was recorded in the opening balance sheet, of which approximately $0.2 million was charged to cost of product sales during the nine months ended September 30, 2018.

The purchase price allocation has been prepared on a preliminary basis and is subject to change as additional information becomes available concerning the fair value and tax basis of the assets acquired and liabilities assumed. Any adjustments to the purchase price allocation will be made as soon as practicable but no later than one year from the November 17, 2017 acquisition date.

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 preliminary fair value of intangible assets both as disclosed in prior periods and as adjusted by measurement period adjustments identified during the current quarter includes the following:

	At November 17, 2017 (preliminary)	Measurement Period Adjustments	At November 17, 2017 (as adjusted)	Useful Life
Acquired product marketing rights - Metafolin	$ 10,465,000	$ 1,522,000	$ 11,987,000	15 years
PAI sales and marketing agreement	2,334,000	219,000	2,553,000	2 years
Acquired product marketing rights - Millipred	4,714,000	342,000	5,056,000	4 years
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 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 nine months ended September 30, 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 acquisitions of Avadel Pediatric Products, which was completed on February 16, 2018, and of TRx, which was completed on November 17, 2017, had each occurred on January 1, 2017:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
	Pro forma	Pro forma	Pro forma	Pro forma
Total revenues, net	$ 4,074,786	$ 30,965,291	$ 15,047,699	$ 41,276,271
Net loss	$ (24,603,575)	$ 16,881,075	$ (35,539,494)	$ 8,505,715
Diluted net loss per share	$ (0.71)	$ 0.63	$ (1.09)	$ 0.42

The above unaudited pro forma information was determined based on the historical GAAP results of Cerecor, Avadel's pediatric products and TRx. The unaudited pro forma condensed 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 been completed on the dates indicated or what the condensed consolidated results of operations will be in the future.

5. 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.

As of September 30, 2018 and December 31, 2017, 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, contingent consideration and the underwriters' unit purchase option liability. 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 $15.4 million as of September 30, 2018 was based on current interest rates for similar types of borrowings and is in Level 2 of the fair value hierarchy.

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:

	September 30, 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*	$ 2,817,588	$ —	$ —
Liabilities			
Contingent consideration	$ —	$ —	$ 9,510,475
Warrant liability**	$ —	$ —	$ 14,330
Unit purchase option liability**	$ —	$ —	$ 43,174

	December 31, 2017 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*	$ 471,183	$ —	$ —
Liabilities			
Contingent consideration	$ —	$ —	$ 2,576,633
Warrant liability**	$ —	$ —	$ 8,185
Unit purchase option liability**	$ —	$ —	$ 26,991

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

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

Level 3 Valuation

The Company's acquisitions of TRx and Avadel's pediatric products (see Note 4) involve the potential for future payment of consideration that is contingent upon the achievement of operational and commercial milestones. The fair value of contingent consideration is determined using unobservable inputs. These inputs include 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 liability is remeasured at current fair value with changes recorded in the Company's condensed consolidated statements of operations. Changes in any of the inputs may result in a significantly different fair value adjustment.

The warrant liability (which relates to warrants to purchase shares of common stock) is marked-to-market each reporting period with the change in fair value recorded to other income (expense) 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 September 30, 2018, include (i) volatility of 52.5%, (ii) risk free interest rate of 2.82%, (iii) strike price ($8.40), (iv) fair value of common stock ($4.67), and (v) expected life of 2.05 years.

The underwriters' unit purchase option (the "UPO") was issued to the underwriters of the Company's initial public offering ("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 are warrants to purchase shares of common stock (see Note 9 for additional information on the UPO). 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 (expense) 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 within a Monte Carlo simulation model framework. The significant assumptions used in preparing the simulation model for valuing the UPO as of September 30, 2018, include (i) volatility range of 35% to 50%, (ii) risk free interest rate range of 2.12% to 2.78%, (iii) unit strike price ($7.48), (iv) underwriters' Class A warrant strike price ($5.23), (v) underwriters' Class B warrant strike price ($4.49) and (vi) fair value of underlying equity ($4.67).

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 nine months ended September 30, 2018 and 2017:

	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
Payment of contingent consideration	—	—	(137,008)	(137,008)
Purchase price allocation measurement period adjustment of contingent consideration	—	—	(1,210,000)	(1,210,000)
Change in fair value	6,145	16,183	360,850	383,178
Balance at September 30, 2018	$ 14,330	$ 43,174	$ 9,510,475	$ 9,567,979

	Warrant liability	Unit purchase option liability	Total
Balance at December 31, 2016	$ 5,501	$ 51	$ 5,552
Change in fair value	(4,970)	6,556	1,586
Balance at September 30, 2017	$ 531	$ 6,607	$ 7,138

The fair value of contingent consideration increased $0.4 million in the nine months ended September 30, 2018. The increase in fair value of contingent consideration is primarily attributable to an increase in the fair value of the contingent consideration related to the Avadel Pediatric Products Acquisition, which was driven by an increase in the net sales forecast.

No other changes in valuation techniques or inputs occurred during the three and nine months ended September 30, 2018 and 2017. No transfers of assets between Level 1 and Level 2 of the fair value measurement hierarchy occurred during the three and nine months ended September 30, 2018 and 2017.

6. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following:

	As of	
	September 30, 2018	December 31, 2017
Sales returns and allowances	$ 6,055,315	$ 3,829,030
Compensation and benefits	1,803,554	1,401,514
General and administrative	1,072,619	1,001,454
Minimum sales commitments, royalties payable, and purchase obligations	8,033,438	743,010
Research and development expenses	620,004	299,480
Other	587,700	256,634
Total accrued expenses and other current liabilities	$ 18,172,630	$ 7,531,122

7. Agreements

Significant changes to our outstanding Agreements since December 31, 2017 are as follows:

Lachlan Pharmaceuticals

In November 2017, the Company acquired TRx and its wholly-owned subsidiaries, including Zylera. The previous owners of TRx beneficially own more than 10% of our outstanding common stock. Zylera, which is now our wholly owned subsidiary, entered into the First Amended and Restated Distribution Agreement (the "Lachlan Agreement") with Lachlan Pharmaceuticals, an Irish company controlled by the previous owners of TRx ("Lachlan"), effective December 18, 2015. 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.

Pursuant to the Lachlan Agreement, Zylera is obligated to purchase a minimum of 20,000 units per year, or approximately $1.2 million worth of product, from Lachlan, subject to certain termination rights. Zylera must pay Lachlan $58.84 per unit and handling fees that are equal to $3.66 per unit of fully packaged Ulesfia in 2018, and escalate at a rate of 10% annually, as well as reimburse Lachlan for all product liability insurance fees incurred by Lachlan. The Lachlan Agreement also requires that Zylera make certain cumulative net sales milestone payments and royalty payments to Lachlan with a $3 million annual minimum payment unless and until there has been a "Market Change" involving a new successful competitive product. Lachlan is obligated to pay identical amounts to an unrelated third party from which it obtained rights to Ulesfia, with the payments ultimately going to Summers Laboratories, Inc. ("Summers Labs"). Because of the dispute described below, the Company has 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 issuance of the final award is scheduled for December 4, 2018. The final award has no direct bearing on the Company as 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. However, the Company has interpreted this ruling's impact on the Lachlan agreement to mean that a market change has not occurred, and the minimum purchase obligation and minimum royalty provisions of the contract are active and due for any prior periods as well as going forward for any future periods. The Company has recognized a $6.9 million liability for these minimum obligations in accrued liabilities as of September 30, 2018. Under the terms of the TRx Purchase Agreement, the former TRx owners are 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 million. Furthermore, the former TRx owners are required to indemnify the Company for 50% of post-acquisition Ulesfia losses, which would include losses resulting from having to fund these minimum obligations. The Company has recorded an indemnity receivable of $6.1 million in other receivables as of September 30, 2018, which the Company believes is fully collectible. The post-acquisition minimum obligations net of amounts recorded within the indemnity receivable of $1.7 million has been recorded in cost of product sales for the three and nine months ended September 30, 2018. If the Company fails to make these minimum obligations timely then the Lachlan Agreement may be terminated by Lachlan, in which case the Company would no longer be able to sell the Ulesfia product, but it would also not be subject to future minimum obligations.

Commercial, Supply, and Distribution Agreements

Acquired Product Marketing Rights - Karbinal

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"), under which the Company is granted the exclusive right to distribute and sell the product in the United States. The initial term of the Karbinal Agreement is 20 years. The Company will pay TRIS a royalty equal to 23.5% of net sales. Avadel has agreed to offset the 23.5% royalty payable by 8.5%, for a net royalty equal to 15%, in fiscal year 2018 and 2019 for net sales of Karbinal. The make-whole payment is capped at $750,000 each year. The Karbinal Agreement also contains minimum unit sales commitments. The Karbinal Agreement also has multiple commercial milestone obligations that aggregate up to $3.0 million based on cumulative net sales, the first of which is triggered at $40.0 million.

Acquired Product Marketing Rights - AcipHex

On February 16, 2018, in connection with the acquisition of Avadel's pediatric products, the Company assumed the License and Assignment Agreement for AcipHex (“AcipHex Agreement”) between Eisai, Inc. and FSC Therapeutics, LLC dated June 2014 and the Supply Agreement between Eisai, Inc. and FSC Laboratories, Inc. dated June 2014. Per the AcipHex Agreement, the Company is granted the exclusive license to exploit the products in the territory (U.S.) and an exclusive license to use Eisai trademarks to sell the products. Eisai will manufacture and supply the requirements for supply of the products. The term of the AcipHex Agreement is perpetual unless terminated per the agreement. Eisai will receive (a) a royalty with respect to the sales of AcipHex equal to 15.0% of Net Sales. The royalties are payable until the first commercial sale of an unauthorized generic product in the territory or the date that is five years from the effective date of the agreement. A maximum $8.0 million of sales-based milestone payments is possible should AcipHex accumulated net sales exceed $50.0 million.

Acquired Product Marketing Rights- Cefaclor

On February 16, 2018, in connection with the acquisition of Avadel's pediatric products, the Company assumed the License, Supply and Distribution Agreement for Cefaclor between Yung Shin Pharm. Ind, Co., Ltd. and FSC Therapeutics, LLC dated March 2015 (“Cefaclor Agreement”). The initial term of the Cefaclor Agreement runs through December 31, 2024 and will automatically renew for additional, successive twelve-month periods unless terminated by either party. Yung Shin will receive a royalty equal to 15.0% of Net Sales of Cefaclor. A maximum $6.5 million of sales-based milestone payments is possible should Cefaclor accumulated net sales exceed $40.0 million.

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 will pay a quarterly payment of $262,500 to Deerfield. In January 2021, a balloon payment of $15,250,000 is due. On the acquisition date, the Company determined the fair value of these payments to be $15,075,000 using a market participant's estimated cost of debt. Management performed a credit risk analysis that determined the Company's credit rating to be B to BB plus the yield on a ten-year treasury security. 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 months ended September 30, 2018 was $0.2 million. Interest expense for the nine months ended September 30, 2018 was $0.6 million. 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 $15.4 million as of September 30, 2018, 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 issue two classes of stock, common stock and preferred stock. As of September 30, 2018, 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 April 27, 2017, the Company further amended its certificate of incorporation in connection with the closing of the Armistice Private Placement (as defined below) with the filing of a Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (“Series A Preferred Stock”) of Cerecor Inc. (the “Certificate of Designation”). The Certificate of Designation authorized the issuance of 4,179 shares of Series A Preferred Stock to Armistice with a stated value of $1,000 per share, convertible into 11,940,000 shares of the Company’s common stock at a conversion price of $0.35 per share and was approved by its shareholders on June 30, 2017. On July 6, 2017, Armistice converted all of its outstanding shares of Series A Preferred Stock into common stock. Subsequent to the conversion of Armistice’s Series A Preferred Stock into common stock, Armistice has a majority voting control over the Company.

Common Stock

Ichorion Asset Acquisition

On September 25, 2018, under the terms of the Ichorion Asset Acquisition noted above in Note 4, the Company issued 5.8 million common stock shares upon closing.

Armistice Private Placements

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.

On April 27, 2017, the Company entered into a securities purchase agreement with Armistice, pursuant to which Armistice purchased $5.0 million of the Company's securities, consisting of 2,345,714 shares of the Company's common stock at a purchase price of $0.35 per share and 4,179 shares of Series A Preferred Stock at a price of $1,000 per share. The Company received $4.65 million in net proceeds from the Armistice Private Placement. The number of shares of common stock that were purchased in the private placement constituted approximately 19.99% of the Company's outstanding shares of common stock immediately prior to the closing of the Armistice Private Placement. Armistice also received warrants to purchase up to 14,285,714 shares of the Company's common stock at an exercise price of $0.40 per share. Under the terms of the securities purchase agreement, the Series A Preferred Stock were not convertible into common stock, and the warrants were not exercisable until the Company received approval of the private placement by the Company's shareholders as required by the rules and regulations of the NASDAQ Capital Market. The Company received shareholder approval for this transaction on June 30, 2017, at which time the warrants became exercisable and the Series A Preferred Stock became convertible into common stock.

As multiple instruments were issued in a single transaction, the Company initially allocated the issuance proceeds among the preferred stock, common stock and warrants using the relative allocation method. As the warrants were determined to be indexed to the Company's stock, and would only be settled in common shares, entirely in the control of the Company, the warrant instrument was accounted for as an equity instrument. Fair value of the warrants was initially determined upon issuance using the Black-Scholes Model (level 3 fair value measurement). Armistice converted all of the Series A Preferred Stock into 11,940,000 shares of common stock on July 6, 2017.

Contingently Issuable Shares

Under the terms of TRx acquisition noted above in Note 4, 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 and entirely contingent upon gaining such 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 September 30, 2018, the following common stock warrants were outstanding:

Number of shares underlying warrants	Exercise price per share	Expiration date
4,551,071	$ 4.55	October 2018
40,000*	$ 5.23	October 2018
3,571	$ 28.00	December 2018
22,328*	$ 8.40	October 2020
2,380*	$ 8.68	May 2022
14,285,714	$ 0.40	June 2022
18,905,064		

*Accounted for as a liability instrument (see Note 5)

In October 2018, approximately 0.1 million of the 4.6 million warrants listed above with an exercise price of $4.55 were exercised, generating proceeds of approximately $0.6 million. The remaining 4.5 million warrants expired.

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").

As of the 2016 Plan Effective Date, no additional grants will be made under the 2015 Plan or the 2011 Stock Incentive Plan (the "2011 Plan"), which was previously succeeded by the 2015 Plan effective October 13, 2015. Outstanding grants under the 2015 Plan and 2011 Plan will continue according to their terms as in effect under the applicable plan.

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 September 30, 2018, there were 730,067 shares available for future issuance under the 2016 Plan.

Option grants to employees and directors expire after ten years. Employee options typically vest over 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.

For stock options issued to non-employees, the Company measures the options at their fair value on the date at which the related service is complete. Expense is recognized over the period during which services are rendered by such non-employees until completed. At the end of each financial reporting period prior to the completion of the service, the fair value of the awards is remeasured using the then current fair market value of the Company's common stock and updated assumptions in the Black-Scholes option pricing model. 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 nine months ended September 30, 2018 and 2017 as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Research and development	$ 32,202	$ 41,323	$ 64,077	$ 123,883
General and administrative	843,122	222,924	1,599,703	728,327
Sales and marketing	69,809	—	132,607	—
Total stock-based compensation	$ 945,133	$ 264,247	$1,796,387	$ 852,210

Stock-based compensation during the three and nine months ended September 30, 2018 includes $0.3 million of expense related to modifications of awards related to a separated executive.

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 nine months ended September 30, 2018 is as follows:

	Options Outstanding			
	Number of shares	Weighted average exercise price	Grant date fair value of options	Weighted average remaining contractual term (in years)
Balance at December 31, 2017	2,823,489	$ 3.93		7.29
Granted	1,504,700	$ 3.88	$ 3,475,857	
Exercised	(243,115)	$ 2.08		
Forfeited	(465,887)	$ 2.73		
Balance at September 30, 2018	3,619,187	$ 4.18		7.97
Exercisable at September 30, 2018	1,832,581	$ 4.88		6.72

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 September 30, 2018, the aggregate intrinsic value of options outstanding, was $4.4 million. The total grant date fair value of shares which vested during the nine months ended September 30, 2018 was $943,270. The per-share weighted-average grant date fair value of the options granted during the nine months ended September 30, 2018 was estimated at $2.31. There were 476,399 options that vested during the nine months ended September 30, 2018 with a weighted average exercise price of $3.27.

Stock options with market-based vesting conditions

The Company has granted awards that contain market-based vesting conditions. Activity for the market-based options was as follows for the nine months ended September 30, 2018:

	Options Outstanding			
	Number of shares	Weighted average exercise price	Weighted average remaining contractual term (in years)	Aggregate intrinsic value (1)
Balance at December 31, 2017	—			
Granted	500,000	$ 4.24		
Exercised	—			
Forfeited	—			
Balance at September 30, 2018	500,000	$ 4.24	9.49	215,000
Exercisable at September 30, 2018	—			

(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.

The weighted-average grant-date fair value of stock options with market-based vesting conditions granted during the first nine months of fiscal year 2018 was $2.52 per share or $1,260,000. At September 30, 2018, there was $1,030,068 of total unrecognized compensation cost related to nonvested market-based vesting conditions awards. This compensation cost is expected to be recognized over the next 2.3 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 market-based stock option grants under a Monte Carlo simulation, for nine months ended September 30, 2018:

Service-based options	
Expected dividend yield	—%
Expected volatility	55 - 65%
Expected life (in years)	5.0 - 6.25
Risk-free interest rate	2.53 - 2.94%
Market-based options	
Expected dividend yield	—%
Expected volatility	60%
Expected life (in years)	10
Risk-free interest rate	2.84%

Restricted Stock Award

The Company has granted restricted stock awards ("RSA") 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 vest annually over a four year period beginning on the first anniversary of the award. The stock compensation expense on this award for the nine months ended September 30, 2018 was $227,858. A t September 30, 2018, there was $1,670,642 of total unrecognized compensation cost related to the RSA grants. This compensation cost is expected to be recognized over the next 3.5 years.

The following table summarizes the Company's RSA grants for nine months ended September 30, 2018:

	Non-vested RSAs Outstanding	
	Number of shares	Weighted average grant date fair value
Non-vested RSAs at December 31, 2017	—	$ —
Granted	445,000	$ 4.27
Vested	—	$ —
Forfeited	—	$ —
Non-vested RSAs at September 30, 2018	445,000	

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 94,341 and 312,669 on January 1, 2017 and January 1, 2018, respectively. As of September 30, 2018, 806,390 shares remained available for issuance.

In accordance with the guidance in ASC 718-50, 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 $31,788 for the nine months ended September 30, 2018, which is included in the table above with all other stock-based compensation.

11. Income Taxes

The provision for income taxes was $52,412 and $92,076 for the three and nine months ended September 30, 2018, 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 quarter, the Company recorded interest and penalties on the outstanding taxes payable to the IRS and a benefit for release of valuation allowance as a result of the adjustments made to the accounting for the TRx Acquisition described earlier.

The Tax Cuts and Jobs Act of 2017 ("TCJA") was passed late in the fourth quarter of 2017, ongoing guidance and accounting interpretation are expected over the next year, and significant data and analysis is required to finalize amounts recorded pursuant to the TCJA. In accordance with Accounting Bulletin No. 118, Income Tax Accounting Implications for the Tax Act ("SAB 118"), the Company considers the accounting for the deferred tax re-measurements and other items to be incomplete due to the forthcoming guidance and its ongoing analysis of final year-end data and tax positions. SAB 118 allows the Company to record provisional amounts during a measurement period not to extend beyond one year from the enactment date. Since the Tax Act was passed late in the fourth quarter of 2017, ongoing guidance and accounting interpretation are expected over the next year, and significant data and analysis is required to finalize amounts recorded pursuant to the Tax Act, the Company considers the accounting for the deferred tax re-measurements and other

items to be incomplete due to the forthcoming guidance and its ongoing analysis of final year-end data and tax positions. The Company expects to complete its analysis within the measurement period in accordance with SAB 118. The Company did not change any provisional estimates recognized in 2017 in the current quarter. Any adjustments to these amounts will be recorded to current tax expense in 2018 when the analysis is complete.

12. 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. See Note 7 for further discussion of the Lachlan legal arbitration.

Purchase obligations

The Company has unconditional purchase obligations as a result of recent acquisitions 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 September 30, 2018 include the following:

Lachlan Pharmaceuticals Minimum Purchase and Minimum Royalties Obligations

As discussed in Note 7, in November 2017, the Company acquired TRx and its wholly-owned subsidiaries, including Zylera. The previous owners of TRx 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. 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.

The Lachlan Agreement requires 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 has been a "Market Change" involving a new successful competitive product. Zylera must pay Lachlan $58.84 per unit and handling fees that are equal to $3.66 per unit of fully packaged Ulesfia in 2018 and escalate at a rate of 10% annually. The Lachlan Agreement also requires 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 has been a "Market Change" involving a new successful competitive product. The Company expects a successful competitive product will enter the market in early 2021 and therefore the future minimum purchase obligations and royalty payments are expected through 2020.

As of September 30, 2018, future minimum purchase obligations and future minimum royalty payments to Lachlan are as follows:

	Q4 2018*	2019*	2020*	2021	2022	Total*
Minimum Purchase Obligations	$ 312,501	1,257,326	1,265,378	—	—	$2,835,205
Minimum Royalties	750,000	3,000,000	3,000,000	—	—	6,750,000
Total	$ 1,062,501	4,257,326	4,265,378	—	—	$ 9,585,205

*Per the TRx Purchase Agreement, the previous owners of TRx are required to indemnify the Company for 50% of post-acquisition Ulesfia losses, which include the future minimum purchase obligations and future minimum royalties disclosed above. Thus, the Company's future net payouts related to the Ulesfia product will be significantly reduced as a result of the indemnification.

Karbinal Royalty Make Whole Payments

As discussed in Note 7, 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 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 has accrued $0.3 million related to the Karbinal royalty make whole payment for each of the three and nine months ending September 30, 2018. The future royalty make whole payments is unknown as the amount owed to TRIS is dependent on the number of units sold.

Office Lease

In 2013, the Company entered into a lease for corporate office space location in Baltimore, Maryland. The lease provided for three months of rent abatement and includes escalating rent payments. Rent expense is recognized on a straight-line basis over the term of the lease. Rent expense under the lease amounted to approximately $44,000 and $132,000, respectively, for the three and nine months ended September 30, 2018 and 2017. The lease expires on December 31, 2018.

During the third quarter of 2018, the Company entered into a lease for the Company's new corporate headquarters in Rockville, Maryland. The Company will be occupying the space for $161,671 in annual base rent, subject to annual 2.5% increases over the term of the lease. The lease provides for a rent abatement, pursuant to which the Landlord will forego annual fixed rent and additional rent 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, or approximately March 1, 2020, subject to early termination. 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 rent commencement date, upon the payment of a termination fee in the amount of $308,889. The lease has been classified as an operating lease. An immaterial amount of rent expense was recognized for this property for the three and nine months ended September 30, 2018.

As of September 30, 2018, minimum operating lease obligations for the new office space are as follows:

	Minimum Lease Payments
2019	$ —
2020	138,094
2021	169,165
2022	173,394
2023	177,729
Thereafter	1,198,161
Total	$ 1,856,543

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 April 2, 2018 as amended on May 25, 2018 and September 7, 2018, 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, 2017 appearing in our Annual Report on Form 10-K filed with the SEC on April 2, 2018, as amended on May 25, 2018 and September 7, 2018.

Overview

We are a fully integrated biopharmaceutical company with commercial operations and research and development capabilities. We are building a robust pipeline of innovative therapies in pediatric healthcare, neurology, and orphan rare diseases. The Company's neurology pipeline is led by CERC-301, which is currently in a Phase I safety study for Neurogenic Orthostatic Hypotension ("nOH"). The Company is also developing three other neurological clinical and preclinical stage compounds. The Company's pediatric orphan rare disease pipeline is led by CERC-801, CERC-802 and CERC-803. All three compounds are preclinical therapies for inherited metabolic disorders known as Congenital Disorders of Glycosylation ("CDGs") by means of substrate replacement therapy. The FDA has granted Rare Pediatric Disease designation to all three compounds. Under the FDA's Rare Pediatric Disease Priority Review Voucher ("PRV") program, upon the approval of a new drug application ("NDA") for the treatment of a rare pediatric disease, the sponsor of such application would be eligible for a PRV that can be used to obtain priority review for a subsequent new drug application or biologics license application. The PRV may be sold or transferred an unlimited number of times. We expect to file Investigational New Drug ("IND") applications with the U.S. Food & Drug Administration ("FDA") for two programs in 2019. Furthermore, we plan 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.

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®, Veripred®, Ulesfia®, Karbinal™ ER, AcipHex® Sprinkle™ and Cefaclor for Oral Suspension. Finally, the Company has one marketed medical device, Flexichamber™.

Cerecor was incorporated in 2011, commenced operations in the second quarter of 2011 and completed an initial public offering in October 2015. 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 million, of which $3.75 million was deposited into a twelve-month escrow. The Company collected the full escrow in August 2018. Additionally, there is a potential future $20 million regulatory milestone payment. 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.

On November 17, 2017, the Company acquired TRx Pharmaceuticals, LLC ("TRx") and its wholly-owned subsidiaries (see "TRx Acquisition" in Note 4 for a description of the transaction).

On February 16, 2018, Cerecor purchased and acquired all rights to Avadel Pharmaceuticals PLC's ("Avadel") marketed pediatric products (the "Acquired Products") for the assumption of certain of Avadel's financial obligations (see "Avadel Pediatric Products Acquisition" in Note 4 for a description of the 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 4 for a description of the transaction).

Our portfolio of product candidates is summarized below:

- **CERC-301:** ***Orphan Neurological Indication***. CERC-301 belongs to a class of compounds known as antagonists of the N-methyl-D-aspartate, or NMDA, receptor, a receptor subtype of the glutamate neurotransmitter system that is responsible for controlling neurologic adaptation. We believe CERC-301 selectively blocks the NMDA receptor subunit 2B, or NR2B (also called GluN2B). Given its specific mechanism of action and demonstrated tolerability profile, we believe CERC-301 may be well suited to address unmet medical needs in neurologic indications. We initiated a Phase I study in 2018 for neurogenic orthostatic hypotension ("nOH"), a condition that is part of a larger category called orthostatic hypotension (OH), which is also known as postural hypotension. nOH is caused by dysfunction in the autonomic nervous system and causes people to feel faint when they stand or sit up. We will continue to explore the use of CERC-301 in orphan neurologic conditions in preclinical and clinical studies.

- **CERC-611:** ***Adjunctive Treatment of Partial-Onset Seizures in Epilepsy.*** CERC-611 is a potent and selective antagonist of transmembrane alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid ("AMPA") receptor regulatory protein ("TARP")-ã8-dependent AMPA receptor in preclinical development. TARPs are a recently discovered family of proteins that have been found to associate with, and modulate the activity of, AMPA receptors. TARP y8-dependent AMPA receptors are localized primarily in the hippocampus, a region of the brain with importance in complex partial seizures and particularly relevant to seizure origination and/or propagation. We believe CERC-611 is the first drug candidate to selectively target and functionally block region-specific AMPA receptors after oral dosing, which we believe may improve the efficacy and side effect profile of CERC-611 over current anti-epileptics. Research also suggests that selectively targeting individual TARPs may enable selective modulation of specific brain circuits without globally affecting synaptic transmission. The clinical strategy for CERC-611 is currently being reevaluated due to a partial clinical hold. The exposure limits imposed by the agency currently allows for subtherapeutic dosing. We are investigating opportunities to broaden the exposure limits. We intend to develop CERC-611 as an adjunctive therapy for the treatment of partial-onset seizures in patients with epilepsy.

- **CERC-406 and CERC-425:** ***Adjunctive Treatment of Parkinson's Disease.*** CERC-406 and CERC-425 are preclinical candidates from our proprietary platform of compounds that inhibit catechol-O-methyltransferase, or COMT, within the brain, which we refer to as our COMTi platform. We believe they may have the potential to be developed for the adjunct treatment of Parkinson's disease.

- **CERC-800's (CERC-801, CERC-802, and CERC-803):** ***Substrate Replacement Therapies for CDGs.*** CERC-801, CERC-802 and CERC-803 represent genetically-targeted, small molecule, substrate replacement therapies with established therapeutic utility for the treatment of CDGs. CDGs are a rapidly expanding group of rare Inborn Errors of Metabolism (IEMs) due to defects in glycosylation. Glycosylation is the process by which carbohydrate complexes are created, modified and attached to proteins and lipids, creating glycoconjugates that are essential for cell structure and function in all tissues and organs. CDG is caused by a specific inherited mutation and more than 100 CDGs have been identified to date. CDGs typically present in infancy and can be associated with a broad spectrum of symptoms that include severe, disabling or life-threatening cases. Oral administration of CERC-801, CERC-802 or CERC-803 can replenish critical metabolic intermediates that are reduced or absent due to genetic mutation, overcoming single enzyme defects to support glycoprotein synthesis, maintenance and function. CERC-801 utilizes D-galactose as the active pharmaceutical ingredient to treat Phosphoglucomutase 1 (PGM1) Deficiency; CERC-802 utilizes D-mannose as the active pharmaceutical ingredient to treat Mannose-Phosphate Isomerase (MPI) Deficiency; and CERC-803 utilizes L-fucose as the active pharmaceutical ingredient to treat Leukocyte Adhesion Deficiency Type II (LADII).

  The FDA has granted Rare Pediatric Disease designation to CERC-801, CERC-802 and CERC-803. Under the FDA's PRV program, upon the approval of a NDA for the treatment of a rare pediatric disease, the sponsor of such application would be eligible for a PRV that can be used to obtain priority review for a subsequent new drug application or biologics license application. The PRV may be sold or transferred an unlimited number of times. We expect to file IND applications with the FDA for two programs in 2019. Furthermore, we plan to leverage the 505(b)(2) NDA pathway for all three compounds to accelerate development and approval.

- **CERC-913: ProTide Nucleotide for Mitochondrial Disorder.** CERC-913 is a genetically-targeted, small molecule substrate replacement therapy that uses a prodrug approach to overcome a single enzyme defect to treat mitochondrial DNA (mtDNA) depletion syndromes ("MDS"). A prodrug is a medication or compound that, after administration, is metabolized into a pharmacologically active substance. The ProTide prodrug platform is a clinically-validated approach to nucleoside monophosphate prodrugs. Some patients suffering from MDS lack a nucleoside kinase that produces nucleoside monophosphates for mtDNA synthesis. Direct substrate replacement of nucleoside monophosphates is impractical due to instability in plasma and low cell permeability. By masking a nucleoside monophosphate as a prodrug with improved drug-like properties, we can deliver the substrate to the desired subcellular compartment and bypass the missing nucleoside kinase. CERC-913 is intended for pediatric MDS patients with symptoms that manifest primarily in the liver, with 50% of patients experiencing liver failure in the first few years of life. CERC-913 is in preclinical development and we intend to file an IND in 2020.

Our strategy for increasing shareholder value includes:

- Growing sales of the existing commercial products in our portfolio, including by identifying and investing in growth opportunities such as new treatment indications and new geographic markets;
- 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 that are near market launch;
- Pursuing targeted, differentiated preclinical and clinical stage product candidates for rare disorders or orphan diseases; and
- Advancing our pipeline of compounds through development and to regulatory approval.

For the nine months ended September 30, 2018, the Company generated a net loss of $34.5 million and negative cash flows from operations of $1.2 million. 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 in order to meet its cash flow needs. As of September 30, 2018, Cerecor had an accumulated deficit of $92.7 million and a balance of $6.8 million in cash and cash equivalents. The Company plans to use this cash and the anticipated positive net cash flows from the Company's existing product sales to offset costs related to its pediatric rare disease preclinical programs, clinical development for our neurology programs, business development, costs associated with its organizational infrastructure and debt principal and interest payments. We expect to continue to incur significant expenses and operating losses for the immediate future. Our ability to achieve and maintain profitability in the future is dependent on 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.

The Company believes it will require additional financing to continue to execute its clinical development strategy and/or 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 we are not able to secure adequate additional funding, we may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible or suspend or curtail planned programs. If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates.

Our plans to aggressively develop our pipeline, including our recently acquired pediatric rare disease preclinical programs, will require substantial cash inflows in excess of what we anticipate our current commercial operations to generate. We expect that our existing cash and cash equivalents, together with the proceeds from the execution of management's plan to complete one or more financings through the issuance of equity, which could be completed with the Company's majority owner, if necessary, and/or through the out-licensing or sale of current or future assets on or before May 2019, will enable us to fund our operating expenses, capital expenditure requirements, and other non-operating cash payments such as principal payments on our outstanding debt balances through November 2019.

Recent Developments

Ichorion Asset Acquisition

On September 24, 2018, we entered into a merger agreement in which we acquired Ichorion Therapeutics, Inc. The consideration for the merger at closing consisted of 5.8 million shares of the Company’s Common Stock, par value $0.001 per share, as adjusted for Estimated Working Capital. The shares are subject to a lockup date through December 31, 2019.

Consideration for the Ichorion Asset Acquisition included certain development milestones in the future worth up to an additional $15 million, payable either in shares of Company Common Stock or in cash, at the election of the Company

Substantially all of the value of Ichorion was related to one group of similar identifiable assets which was the IPR&D for the three preclinical therapies for CDGs (CERC-801, CERC-802 and CERC-803) and as such the Company accounted for this transaction as an asset acquisition. The Ichorion Asset Acquisition aligns with our strategy to develop treatments for pediatric orphan rare diseases. All three compounds are for therapies for inherited metabolic disorders known as CDGs by means of substrate replacement therapy and are preclinical. The FDA has granted Rare Pediatric Disease designation to all three compounds. Under the FDA's PRV program, upon the approval of a NDA for the treatment of a rare pediatric disease, the sponsor of such application would be eligible for a PRV that can be used to obtain priority review for a subsequent new drug application or biologics license application. The PRV may be sold or transferred an unlimited number of times. We expect to file IND applications with the FDA for two programs in 2019. Furthermore, we plan to leverage the 505(b)(2) NDA pathway for all three compounds to accelerate development and approval. The Company is in the process of developing one other preclinical molecule for a pediatric orphan rare disease.

See Item 1, Note 4 to the unaudited condensed consolidated financial statements in this Quarterly Report on Form 10-Q for more information on the Ichorion Asset Acquisition.

Avadel Pediatric Products Acquisition

On February 16, 2018, the Company purchased and acquired all rights to Avadel Pharmaceuticals PLC's ("Avadel") marketed pediatric products (the "Avadel Products") for the assumption of certain of Avadel's financial obligations to Deerfield CSF, LLC, which includes a loan with a face value of $15 million due in January 2021 and its related interest payments as well as a 15% annual royalty on net sales of the Avadel Products through February 2026 (the "Avadel Acquisition"). The Avadel Products consist of Karbinal™ ER, AcipHex® Sprinkle™, Cefaclor for Oral Suspension, and Flexichamber™.

See Item 1, Note 4 to the unaudited condensed consolidated financial statements in this Quarterly Report on Form 10-Q for more information on the Avadel Pediatric Products Acquisition.

TRx Acquisition

On November 17, 2017, the Company acquired TRx, including its wholly-owned subsidiary Zylera Pharmaceuticals, LLC and its franchise of commercial medications led by Poly-Vi-Flor® (multivitamin and fluoride supplement tablet, chewable), Tri-Vi-Flor® (multivitamin and fluoride supplement suspension/drops), Millipred®, Veripred® and Ulesfia®. Zylera Pharma Corp, and Princeton, LLC. Under the terms of the transaction, the Company paid $18.9 million in cash and $8.5 million in Cerecor common stock. TRx shareholders will be eligible to receive up to an additional $7 million in contingent payments upon achievement of certain commercial and regulatory milestones.

Lachlan Pharmaceuticals

In November 2017, the Company acquired TRx and its wholly-owned subsidiaries, including Zylera. The previous owners of TRx beneficially own more than 10% of our outstanding common stock. Zylera, which is now our wholly owned subsidiary, entered into the First Amended and Restated Distribution Agreement (the "Lachlan Agreement") with Lachlan Pharmaceuticals, an Irish company controlled by the previous owners of TRx ("Lachlan"), effective December 18, 2015. 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.

Pursuant to the Lachlan Agreement, Zylera is obligated to purchase a minimum of 20,000 units per year, or approximately $1.2 million worth of product, from Lachlan, subject to certain termination rights. Zylera must pay Lachlan $58.84 per unit and handling fees that are equal to $3.66 per unit of fully packaged Ulesfia in 2018, and escalate at a rate of 10% annually, as well as reimburse Lachlan for all product liability insurance fees incurred by Lachlan. The Lachlan Agreement also requires that Zylera make certain cumulative net sales milestone payments and royalty payments to Lachlan with a $3 million annual minimum payment unless and until there has been a "Market Change" involving a new successful competitive product. Lachlan is obligated to pay identical amounts to an unrelated third party from which it obtained rights to Ulesfia, with the payments ultimately going to Summers Laboratories, Inc. ("Summers Labs"). Because of the dispute described below, the Company has 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 issuance of the final award is scheduled for December 4, 2018. The final award has no direct bearing on the Company as 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. However, the Company has interpreted this ruling's impact on the Lachlan agreement to mean that a market change has not occurred and the minimum purchase obligation and minimum royalty provisions of the contract are active and due for any prior periods as well as going forward for any future periods. The Company has recognized a $6.9 million liability for these minimum obligations in accrued liabilities as of September 30, 2018. Under the terms of the TRx Purchase Agreement, the former TRx owners are 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 million. Furthermore, the former TRx owners are required to indemnify the Company for 50% of post-acquisition Ulesfia losses, which would include losses resulting from having to fund these minimum obligations. The Company has recorded an indemnity receivable of $6.1 million in other receivables as of September 30, 2018, which the Company believes is fully collectible. The post-acquisition minimum obligations net of amounts recorded within the indemnity receivable has been recorded in cost of goods sold for the three and nine months ended September 30, 2018. If the Company fails to make these minimum obligations timely then the Lachlan Agreement may be terminated by Lachlan, in which case the Company would no longer be able to sell the Ulesfia product, but it would also not be subject to future minimum obligations.

Components of Operating Results

License, Other and Grant Revenue

Prior to the acquisitions of TRx and Avadel's pediatric products, the Company derived revenue primarily from the sale of CERC-501 to Janssen Pharmaceuticals, Inc. ("Janssen") in August 2017 and research grants from the National Institutes of Health.

In April 2016, the Company received a research and development grant from the National Institute on Drug Abuse, or NIDA, at the National Institutes of Health to provide additional resources for the period from May 2016 through April 2017 for a Phase 2 clinical trial for CERC-501. Additionally, in July 2016, the Company received a research and development grant from the National Institute on Alcohol Abuse and Alcoholism, or NIAAA, at the National Institutes of Health to provide additional resources for the period of July 2016 through December 2017 to progress the development of CERC-501 for the treatment of alcohol use disorder. The Company recognizes revenue under grants in earnings on a systemic basis in the period the related expenditures for which the grants are intended to compensate are incurred. Grant revenues are derived from government grants that support the Company’s efforts on specific research projects. The Company determined that the government agencies providing grants to the Company are not our customers.

Product Revenue, Net

The Company generates substantially all of our revenue from sales of prescription pharmaceutical products to our customers and have identified a single product delivery performance obligation, which is the provision of prescription pharmaceutical products to our customers based upon Master Service Agreements in place with wholesaler distributors, purchase orders from retail pharmacies or other direct customers and a contractual arrangement with a specialty pharmacy. The performance obligation is satisfied at a point in time, when control of the product has been transferred to the customer, either at the time the product has been received by the customer or to a lesser extent when the product is shipped. The Company determines the transaction price based on fixed consideration in its contractual agreements and the transaction price is allocated entirely to the performance obligation to provide pharmaceutical products. In determining the transaction price, a significant financing component does not exist since the timing from when the Company delivers product to when the customers pay for the product is less than one year and the customers do not pay for product in advance of the transfer of the product.

Revenues from sales of products are recorded net of any variable consideration for estimated allowances for returns, chargebacks, distributor fees, prompt payment discounts, government rebates and other common gross-to-net revenue adjustments. The identified variable consideration is recorded as a reduction of revenue at the time revenues from product sales are recognized. The Company recognizes revenue only to the extent that it is probable that a significant revenue reversal will not occur in a future period.

Provisions for returns and government rebates are included within current liabilities in the condensed consolidated balance sheet. Provisions for prompt payment discounts and distributor fees, are included as a reduction to accounts receivable. Calculating these items involves estimates and judgments based on sales or invoice data, contractual terms, historical utilization rates, new information regarding changes in these programs’ regulations and guidelines that would impact the amount of the actual rebates, our expectations regarding future utilization rates for these programs, and channel inventory data. These estimates may differ from actual

consideration amount received and the Company will re-assess these estimates and judgments each reporting period to adjust accordingly.

Returns and Allowances

Consistent with industry practice, the Company maintains a return policy that allows customers to return product within a specified period both subsequent to and, in certain cases, prior to the product's expiration date. Our return policy generally allows customers to receive credit for expired products within six months prior to expiration and within one year after expiration. The provision for returns and allowances consists of estimates for future product returns and pricing adjustments. The primary factors considered in estimating potential product returns include:

- the shelf life or expiration date of each product;
- historical levels of expired product returns;
- external data with respect to inventory levels in the wholesale distribution channel;
- external data with respect to prescription demand for our products; and
- the estimated returns liability to be processed by year of sale based on analysis of lot information related to actual historical returns.

The Company's estimate for returns and allowances may be impacted by a number of factors, but the principal factor relates to the level of inventory in the distribution channel. If the Company becomes aware of an increase in the level of inventory of its products in the distribution channel, the Company considers the reasons for the increase to determine whether the Company believes the increase is temporary or other-than-temporary. Increases in inventory levels assessed as temporary will not result in an adjustment to the provision for returns and allowances. Conversely, other-than-temporary increases in inventory levels may be an indication that future product returns could be higher than originally anticipated and, accordingly, the Company may need to adjust the provision for returns and allowances. Some of the factors that may be an indication that an increase in inventory levels will be other-than-temporary include:

- declining sales trends based on prescription demand;
- regulatory approvals that could shorten the shelf life of our products, which could result in a period of higher returns related to older product still in the distribution channel;
- introduction of new product or generic competition; and
- increasing price competition from generic competitors.

Distribution Fees and Rebates

Consistent with pharmaceutical industry practices, the Company establishes contracts with wholesalers that provide for Distribution Service Fees (“DSA fees”). Settlement of DSA fees may generally occur on a monthly or quarterly basis based on net sales for the period. DSA fee accruals are based on contractual fees to be paid to the wholesaler distributors applied to purchases of our products.

The Company is also subject to rebates on sales made under governmental pricing programs. For example, Medicaid rebates are amounts owed based upon contractual agreements or legal requirements with public sector (Medicaid) benefit providers after the final dispensing of the product by a pharmacy to a benefit plan participant. Medicaid reserves are based on expected payments, which are driven by patient us age, contract performance and field inventory that will be subject to a Medicaid rebate. Medicaid rebates are typically billed up to 180 days after the product is shipped, however can be as much as 270 days after the quarter in which the product is dispensed to the Medicaid participant. In addition to the estimates mentioned above, our calculation also requires other estimates, such as estimates of sales mix, to determine which sales are subject to rebates and the amount of such rebates. Periodically, the Company adjusts the Medicaid rebate provision based on actual claims paid. Due to the delay in billing, adjustments to actual claims paid may incorporate revisions of this provision for several periods. Because Medicaid pricing programs involve particularly difficult interpretations of complex statutes and regulatory guidance, our estimates could differ from actual experience.

In determining estimates for these rebates, the Company considers the terms of the contracts, relevant statutes, historical relationships of rebates to revenues, past payment experience, estimated inventory levels and estimated future trends.

Chargebacks and Sales Discounts

Chargeback accruals are based on the differentials between product acquisition prices paid by wholesalers and lower government contract pricing paid by eligible customers covered under federally qualified programs. Sales discounts accruals are based on payment terms extended to customers.

Sales Force Revenue

Pursuant to a Marketing Agreement with Pharmaceutical Associates, Inc. (“PAI”), the Company received a monthly marketing fee to promote, market and sell certain products on behalf of PAI. The Company also received a matching fee payment for each month of the term of the Marketing Agreement if certain provisions calculated in accordance with the terms and inputs set forth in the Marketing Agreement are met. Marketing fees and any matching payments are recognized as sale force revenue when all the performance obligations have been satisfied, as invoiced on a month basis. This contract was terminated in April 2018.

Accounting Policy Elections

The Company elected the following practical expedients in applying Topic 606 to its identified revenue streams:

- Portfolio approach - contracts within each revenue stream have similar characteristics and the Company believes this approach would not differ materially than if applying Topic 606 to each individual contract.
- Modified retrospective approach - the Company applied Topic 606 only to contracts with customers which were not completed at the date of initial application, January 1, 2018.
- Significant financing component - the Company did not adjust the promised amount of consideration for the effects of a significant financing component as the Company expects, at contract inception, that the period between when the Company transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less.
- Shipping and handling activities - the Company considers any shipping and handling costs that are incurred after the customer has obtained control of the product as a cost to fulfill a promise and will account for them as an expense.
- Contract costs - the Company recognizes the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that the Company otherwise would have recognized is one year or less.

The Company does not incur costs to obtain a contract or costs to fulfill a contract that would result in the capitalization of contract costs. Specifically, internal sales commissions are costs to fulfill a contract and are expensed in the same period that revenue is recognized, which is typically within the same quarterly reporting period. Contract costs are expensed or amortized in “Operating expenses” on the accompanying Condensed Consolidated Statements of Operations.

The Company has not made significant changes to the judgments made in applying ASU 2014-09, *Revenue from Contracts with Customers* (Topic 606) ("ASU 2014-09") for the three and nine months ended September 30, 2018.

Cost of Product Sales

Cost of product sales is comprised of (i) costs to acquire products sold to customers; (ii) royalty, license payments and other agreements granting the Company rights to sell related products; (iii) distribution costs incurred in the sale of products; (iv) the value of any write-offs of obsolete or damaged inventory that cannot be sold and (v) accruals for minimum sale obligations.

Research and Development Expenses

Our research and development expenses consist primarily of costs incurred manufacturing, developing, testing and seeking marketing approval for our product candidates. These costs include both external costs, which are study-specific costs, and internal research and development costs, which are not directly allocated to our product candidates.

External costs include:

- expenses incurred under agreements with third-party contract research organizations and investigative sites that conduct our clinical trials, preclinical studies, as well as manufacturing, quality and regulatory activities;
- payments made to contract manufacturers for drug substance and acquiring, developing and manufacturing clinical trial materials;
- payments related to acquisitions of our product candidates and preclinical platform; and
- milestone payments, and fees associated with the prosecution and maintenance of patents.

Internal costs include:

- personnel-related expenses, including salaries, benefits and stock-based compensation expense and travel expenses;
- consulting costs related to our internal research and development programs; allocated facilities, depreciation and other expenses, which include rent and utilities, as well as other supplies and licensing fees;
- software licensing;
- questionnaire costs; and
- product liability insurance.

Research and development costs are expensed as incurred. The Company records costs for some development activities, such as clinical trials, based on an evaluation of the progress to completion of specific tasks using data such as subject enrollment, clinical site activations or information provided to us by our vendors.

The Company tracks external costs by program and subsequently by product candidate once a product candidate has been selected for development. Product candidates in later stage clinical development generally have higher research and development expenses than those in earlier stages of development, primarily due to the increased size and duration of the clinical trials.

As of September 30, 2018, the Company had five full-time employees who were primarily engaged in research and development.

Acquired In-Process Research and Development Expenses

Acquired in-process research and development ("IPR&D") expense includes the initial costs of IPR&D projects, acquired directly in a transaction other than a business combination, that do not have an alternative future use.

General and Administrative Expenses

General and administrative expenses consist primarily of professional fees, patent costs and salaries, benefits and related costs for executive and other personnel, including stock-based compensation and travel expenses. Other general and administrative expenses include facility-related costs, communication expenses and professional fees for legal, including patent-related expenses, consulting, tax and accounting services, insurance, depreciation, integration and general corporate expenses.

Sales and Marketing Expenses

Sales and marketing expenses consist primarily of professional fees, advertising and marketing cost and salaries, contractual costs and benefits and related costs for sales and sales support personnel, including stock-based compensation and travel expenses.

Amortization Expense

Amortization expense includes the amortization of the Company's acquired intangible assets. There is no amortization expense included in cost of product sales or sales and marketing expense as all amortization expense is included within its own standalone line in operating expenses in the Company's condensed consolidated statements of operations.

Impairment of Intangible Assets

Impairment of intangible assets includes any impairment charges related to the Company's acquired intangible assets. The Company received written notice to terminate the PAI Sales and Marketing Agreement in the second quarter of 2018. An impairment charge was recognized in the nine months ended September 30, 2018 in the amount of $1.9 million, representing the remaining net book value of the PAI sales and marketing agreement intangible asset.

Change in Contingent Consideration, Fair Value of Warrant Liability and Unit Purchase Option Liability

In 2014, the Company issued warrants to purchase 625,208 shares of Series B convertible preferred stock. Upon the closing of our initial public offering, or IPO, in October 2015 these warrants became warrants to purchase 22,328 shares of common stock, in accordance with their terms. These warrants represent a freestanding financial instrument that is indexed to an obligation, which the Company refers to as the Warrant Liability. These warrants are classified as a liability at fair value. This liability is remeasured at each balance sheet date and the change in fair value is recorded within our statement of operations. The warrants expire in October 2020.

As part of our IPO, the underwriter received a unit purchase option, or UPO, to purchase up to 40,000 units, whereby a unit is comprised of one share of our common stock, one Class A warrant to purchase one share of our common stock and one Class B warrant to purchase one-half share of our common stock. The Class B warrants expired in April 2017. The UPO is classified as a liability at its respective fair value. This liability is remeasured at each balance sheet date and the change in fair value is recorded within our statement of operations. The UPO expires in October 2020.

The Company's business acquisitions involve the potential for future payment of consideration that is contingent upon the achievement of operational and commercial milestones and royalty payments on future product sales. The preliminary fair value of contingent consideration liabilities was determined at the acquisition date using unobservable level 3 inputs. These inputs include 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 liability is remeasured at current fair value with changes recorded in the condensed consolidated statements of operations. Changes in any of the inputs may result in a significantly different fair value adjustment.

Interest Expense, net

Net interest expense is primarily related to interest expense pursuant to the terms of our debt obligation assumed on February 16, 2018 as described in Note 8. Deerfield Obligation.

Critical Accounting Policies and Significant Judgments and Estimates

This discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States of America, or GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reported period. In accordance with GAAP, the Company bases our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. On an ongoing basis, we evaluate our estimates and assumptions, including those related to clinical and preclinical trial expenses and stock-based compensation. Actual results may differ from these estimates under different assumptions or conditions.

There have been no significant changes to our critical accounting policies from those disclosed in our 2017 Annual Report on Form 10-K except for the adoption of new accounting standards, including the new standard related to revenue recognition, as described in Note 2 to the interim unaudited condensed consolidated financial statements. For further details regarding revenues and cash flows arising from contracts with customers, refer to Note 2 to the interim unaudited condensed consolidated financial statements.

Non-GAAP Financial Metrics

In addition to disclosing financial results that are determined in accordance with GAAP, the Company also uses the following non-GAAP financial metrics to understand and evaluate our operating performance:

EBITDA, which the Company defines as GAAP net income adjusted for (i) taxes, (ii) interest expense, (iii) interest income, (iv) amortization of intangible assets, (v) depreciation, and (vi) inventory step-up adjustment recognized in earnings;

Adjusted EBITDA, which the Company defines as EBITDA as defined above further adjusted for (i) share-based compensation expense, (ii) change in fair value of contingent consideration, warrant liability and unit purchase option liability, (iii) restructuring costs, (iv) acquisition and integration-related expenses, (v) impairment of intangible assets, (vi) arbitration costs related to the Lachlan transaction which is further described in Item 1 Note 7, (vii) acquired IPR&D, which is further described in Item 1 Note 4, and (viii) sale or out-licensing of Company assets.

The Company updated our definition of Adjusted EBITDA during the third quarter of 2018 to adjust for acquired IPR&D and sale or out-licensing of Company assets. These updates did not impact previous presentation of prior periods.

The Company believes that providing this additional information is useful to the reader to better assess and understand our operating performance, primarily because management typically monitors the business adjusted for these items in addition to GAAP results. These non-GAAP financial metrics should be considered supplemental to and not a substitute for financial information prepared in accordance with GAAP. Our definition of these non-GAAP metrics may differ from similarly titled metrics used by others. The Company views these non-GAAP financial metrics as a means to facilitate our financial and operational

decision-making, including evaluation of our historical operating results and comparison to competitors' operating results. These non-GAAP financial metrics reflect an additional way of viewing aspects of our operations that, when viewed with GAAP results may provide a more complete understanding of factors and trends affecting our business. The determination of the amounts that are adjusted from these non-GAAP financial metrics is a matter of management judgment and depends upon, among other factors, the nature of the underlying expense or income amounts. Because non-GAAP financial metrics adjust for the effect of items that will increase or decrease our reported results of operations, we strongly encourage investors to review our consolidated financial statements and periodic reports in their entirety.

The following tables present reconciliations of these non-GAAP financial metrics to the most directly comparable GAAP financial measure for the three and nine months ended September 30, 2018 and 2017:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
	(in thousands)			
GAAP Net (loss) income	$ (24,604)	$ 18,721	$ (34,494)	$ 14,961
Non-GAAP Adjustments:				
Income tax expense	52	3,230	92	3,230
Interest expense (income), net	235	(29)	578	54
Amortization of intangible assets	1,065	—	3,316	—
Depreciation	5	5	18	17
Inventory step-up adjustment recorded in earnings	85	—	262	—
EBITDA	$ (23,162)	$ 21,927	$ (30,228)	$ 18,262
Non-GAAP Adjustments:				
Share based compensation	945	264	1,796	852
Change in fair value of contingent consideration, warrant liability and unit purchase option liability	88	—	383	2
Restructuring costs	320	400	533	400
Acquisition and integration related expenses	—	—	741	—
Impairment of intangible assets	160	—	1,862	—
Lachlan legal arbitration costs	(1,038)	—	(178)	—
Acquired in-process research and development	18,724	—	18,724	—
Sale or out-licensing of Company assets	—	(25,000)	—	(25,000)
Total Non-GAAP Adjustments	19,199	(24,336)	23,861	(23,746)
Adjusted EBITDA	$ (3,963)	$ (2,409)	$ (6,367)	$ (5,484)

Results of Operations

Comparison of the Three Months Ended September 30, 2018 and 2017

The following table summarizes our revenue for the three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
	2018	2017
	(in thousands)	
Product revenue, net	$ 4,075	$ —
License and other revenue	$ —	$ 25,000
Grant revenue	$ —	$ 38
	$ 4,075	$ 25,038

Product Revenue, net

Product revenue, net was $4.1 million for the three months ended September 30, 2018, and represents revenues from the sale of our pediatric products following the acquisition of TRx in November 2017 and Avadel's pediatric products in February 2018. There were no product revenues reported for the three months ended September 30, 2017.

License and Other Revenue

There was no license and other revenue for the three months ended September 30, 2018, compared to $25.0 million for the three months ended September 30, 2017. In the third quarter of 2017, the Company sold CERC-501 to Janssen in exchange for initial gross proceeds of $25.0 million.

Grant Revenue

There was no grant revenue for the three months ended September 30, 2018, compared to $0.04 million for the three months ended September 30, 2017. Our grant revenues related to CERC-501 and were dependent upon the timing and progress of the underlying studies and development activities. The grant revenue and study costs related to these grants were discontinued with the sale of CERC-501 to Janssen in August of 2017.

Cost of Product Sales

Cost of product sales was $3.1 million for the three months ended September 30, 2018 and relate to the cost of product sales from our recently acquired pediatric products. There are no costs of product sales reported for the three months ended September 30, 2017.

Research and Development Expenses

The following table summarizes our research and development expenses for the three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
	2018	2017
	(in thousands)	
Preclinical expenses	$ 120	$ 277
Clinical expenses	473	143
CMC expenses	18	136
Internal expenses not allocated to programs:		
Salaries, benefits and related costs	324	170
Stock-based compensation expense	32	198
Other	81	41
	$ 1,048	$ 965

Research and development expenses were $1.0 million for the three months ended September 30, 2018, increased by $0.1 million compared to the three months ended September 30, 2017. Clinical costs increased by $0.3 million from the prior year period primarily due to activities for our CERC-301 clinical study in nOH. Salaries, benefits and related costs increased $0.2 million from the previous year due to the hiring of a Chief Scientific Officer in the current quarter, as well as an increase in employee benefits and other salary related costs. Stock-based compensation decreased $0.2 million from the previous year due to the acceleration of stock options in the third quarter of 2017 for a senior executive who resigned in the period.

Acquired In-Process Research and Development Expenses

The following table summarizes our acquired in-process research and development expenses for three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
	2018	2017
	(in thousands)	
Acquired in-process research and development	$ 18,724	$ —

As part of the asset acquisition of Ichorion, the Company acquired $18.7 million of in-process research and development for three preclinical therapies for inherited metabolic disorders known as CDGs (CERC-801, CERC-802 and CERC-803). 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. There was no acquired in-process research and development expense for the three months ended September 30, 2017.

General and Administrative Expenses

The following table summarizes our general and administrative expenses for the three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
	2018	2017
	(in thousands)	
Salaries, benefits and related costs	$ 1,139	$ 744
Legal, consulting and other professional expenses	(203)	1,047
Stock-based compensation expense	843	223
Other	105	138
	$ 1,884	$ 2,152

General and administrative expenses were $1.9 million for the three months ended September 30, 2018, which is a decrease of $0.3 million compared to the three months ended September 30, 2017. Salaries, benefits and related costs increased by $0.4 million due primarily to the current period severance costs of a senior executive that was separated in the third quarter of 2018. Legal, consulting and other professional expenses decreased $1.3 million mainly due to a $1.0 million reversal of legal expenses due to a purchase price allocation measurement period adjustment identified for TRx during the third quarter of 2018. Stock-based compensation expense increased by $0.6 million primarily as a result of the acceleration of stock options for a senior executive separated in the third quarter of 2018.

Sales and Marketing Expenses

The following table summarizes our sales and marketing expenses for the three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
	2018	2017
	(in thousands)	
Salaries, benefits and related costs	$ 1,456	$ —
Logistics, insurance and other commercial operations expenses	338	—
Stock-based compensation expense	70	—
Advertising and marketing expense	415	—
Other	32	—
	$ 2,311	$ —

The Company began to incur sales and marketing expenses upon acquiring TRx in November 2017. Salaries, benefits and related costs resulted from the sales and sales support personnel needed to maintain and grow our commercial sales activities in connection with our recent acquisitions of TRx and Avadel's pediatric products. Logistics, insurance and other commercial operations expenses were incurred in order to support commercial operations. Advertising and marketing expenses were incurred to support the portfolio of pediatric drug products for sale. During the third quarter of 2018, the Company initiated an expansion of the sales force. The Company expects costs to continue to increase in the future periods until the expansion is completed.

Amortization Expense

The following table summarizes our amortization expense for the three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
	2018	2017
	(in thousands)	
Amortization of intangible assets	$ 1,065	$ —

Amortization expense was $1.1 million for the three months ended September 30, 2018. The amortization expense relates to the acquisition of intangible assets as part of the acquisitions of TRx and Avadel's pediatric products. No amortization expense was recognized for the three months ended September 30, 2017.

Impairment of intangible assets

The Company recorded impairment of intangible asset expense of $0.2 million for the three months ended September 30, 2018 due to a purchase price allocation measurement period adjustment identified for TRx during the third quarter of 2018 and due to the impairment of the PAI sales and marketing agreement intangible upon termination of the corresponding agreement during the second quarter of 2018. No expense related to impairment of intangible assets was recognized for the three months ended September 30, 2017.

Other (Expense) Income

The following table summarizes our other income for the three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
	2018	2017
	(in thousands)	
Change in fair value of contingent consideration, warranty liability and unit purchase option liability	$ (88)	$ —
Other income	—	—
Interest (expense) income	(235)	29
	$ (323)	$ 29

Other expense was $0.3 million for the three months ended September 30, 2018 compared to other income of $0.03 million during the same period in 2017. The change was primarily a result of the recognition of interest expense of $0.2 million for the three months ended September 30, 2018 as compared to interest income of $0.03 million in the same period in 2017. The interest expense recognized in the third quarter of 2018 relates to interest expense for the Deerfield Obligation assumed as part of the Avadel's pediatric products acquisition, which took place in the first quarter of 2018.

Income Tax Expense

The provision for income taxes was $52,412 for the three months ended September 30, 2018. The provision for income taxes is composed of state income tax for one of the Company's wholly owned subsidiaries. Our annual effective tax rate as of September 30, 2018 was approximately 0%. The provision for income taxes was $3.2 million for the three months ended September 30, 2017 due to the net income generated from the sale of CERC-501 to Janssen in August of 2017.

Comparison of the Nine Months Ended September 30, 2018 and 2017

The following table summarizes our revenue for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Product revenue, net	$ 13,046	$ —
Sales force revenue	297	—
License and other revenue	—	25,000
Grant revenue	—	580
	$ 13,343	$ 25,580

Product Revenue, Net

Product revenue, net was $13.0 million for the nine months ended September 30, 2018, and represents revenues from the sale of our pediatric products following the acquisition of TRx in November 2017 and Avadel's pediatric products in February 2018. There were no product revenues reported for the nine months ended September 30, 2017.

Sales Force Revenue

Sales force revenue was $0.3 million for the nine months ended September 30, 2018. There are no sales force revenues reported for nine months ended September 30, 2017. The PAI contract was canceled during the second quarter of 2018, and the Company does not expect additional sales force revenue from the contract.

License and Other Revenue

There was no license and other revenue for the nine months ended September 30, 2018, compared to $25.0 million for the nine months ended September 30, 2017. In the third quarter of 2017, the Company sold CERC-501 to Janssen in exchange for initial gross proceeds of $25.0 million.

Grant Revenue

There was no grant revenue for the nine months ended September 30, 2018, compared to $0.6 million for the nine months ended September 30, 2017. Our grant revenues related to CERC-501 and were dependent upon the timing and progress of the underlying studies and development activities. The grant revenue and study costs related to these grants were discontinued with the sale of CERC-501 to Janssen in August of 2017.

Cost of Product Sales

Cost of product sales was $5.4 million for the nine months ended September 30, 2018 and relate to the cost of product sales from our recently acquired pediatric products. There are no costs of product sales reported for the nine months ended September 30, 2017.

Research and Development Expenses

The following table summarizes our research and development expenses for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Preclinical expenses	$ 1,403	$ 347
Clinical expenses	1,122	509
CMC expenses	157	452
Internal expenses not allocated to programs:		
Salaries, benefits and related costs	809	758
Stock-based compensation expense	64	124
Other	225	221
	$ 3,780	$ 2,411

Research and development expenses increased by $1.4 million compared to the same period in 2017. Preclinical expenses increased by $1.1 million compared to nine months ended September 30, 2017, primarily due to toxicology studies in support of clinical development. Clinical costs increased by $0.6 million for the nine months ended September 30, 2018 compared to the same period in 2017 primarily due to activities related to clinical study in nOH. CMC costs decreased $0.3 million for the nine months ended September 30, 2018 compared to the same period in 2017 due to higher prior year spending on clinical trial material stability and drug product to support clinical development.

Acquired In-Process Research and Development Expenses

The following table summarizes our acquired in-process research and development expenses for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Acquired in-process research and development	$ 18,724	$ —

As part of the asset acquisition of Ichorion, the Company acquired $18.7 million of in-process research and development for three preclinical therapies for inherited metabolic disorders known as CDGs (CERC-801, CERC-802 and CERC-803). 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. There was no acquired in-process research and development expense for the nine months ended September 30, 2018.

General and Administrative Expenses

The following table summarizes our general and administrative expenses for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Salaries, benefits and related costs	$ 2,614	$ 1,665
Legal, consulting and other professional expenses	3,324	2,150
Stock-based compensation expense	1,600	728
Other	296	378
	$ 7,834	$ 4,921

General and administrative expenses increased by $2.9 million for the nine months ended September 30, 2018 compared to the same period in 2017. Salaries, benefits and related costs increased by $0.9 million for the nine months ended September 30, 2018 compared to the same period of 2017 due to the current year recognition of severance costs of senior executives that was separated in the third quarter of 2018 as well as an increase in employee benefits and other salary related costs. Legal, consulting and other professional expenses increased by $1.2 million compared to the same period of 2017 primarily as a result of the legal, compliance

and integration costs associated with our acquisitions. Stock-based compensation expense also increased by $0.9 million over the same period comparison primarily as a result of the acceleration of the stock options of a senior executive who was separated in the period, in addition to options granted to new senior executives.

Sales and Marketing Expenses

The following table summarizes our sales and marketing expenses for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Salaries, benefits and related costs	$ 4,086	$ —
Logistics, insurance and other commercial operations expenses	847	—
Stock-based compensation expense	133	—
Advertising and marketing expense	728	—
Other	95	—
	$ 5,889	$ —

The Company began to incur sales and marketing expenses upon acquiring TRx in November 2017. Salaries, benefits and related costs resulted from the sales and sales support personnel needed to maintain and grow our commercial sales activities in connection with our recent acquisitions of TRx and Avadel's pediatric products. Logistics, insurance and other commercial operations expenses were incurred in order to support commercial operations. Advertising and marketing expenses were incurred to support the portfolio of pediatric drug products for sale. During the third quarter of 2018, the Company initiated an expansion of the sales force. The Company expects costs to continue to increase in future periods until the expansion is completed.

Amortization Expense

The following table summarizes our amortization expense for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Amortization of intangible assets	$ 3,316	$ —

Amortization expense was $3.3 million for the nine months ended September 30, 2018. No amortization expense was recognized for the nine months ended September 30, 2017. The amortization expense in 2018 relates to the acquisition of intangible assets as part of the acquisitions of TRx and Avadel's pediatric products.

Impairment of Intangible Assets

The company recorded impairment of intangible asset expense of $1.9 million for the nine months ended September 30, 2018 due to the impairment of the PAI sales and marketing agreement intangible upon termination of the corresponding agreement. No expense related to impairment of intangible assets was recognized for the nine months ended September 30, 2017.

Other Expense

The following table summarizes our other income (expense) for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Change in fair value of contingent consideration, warranty liability and unit purchase option liability	$ (383)	$ (2)
Other income	19	—
Interest expense	(578)	(54)
	$ (942)	$ (56)

Other expense was $0.9 million for the nine months ended September 30, 2018 as compared to $0.1 million for the same period in 2017. The change in fair value of contingent consideration, warranty liability and unit purchase option liability decreased $0.4 million due to the increase in the fair value of the contingent consideration related to the Avadel Pediatric Products Acquisition, which was recorded as other expense. The fair value of the contingent consideration related to the acquisition of Avadel's pediatric products increased due to an increase in the net sales forecast. There was no contingent consideration for the nine months ended September 30, 2017 as it relates to the acquisitions of TRx and Avadel's pediatric products. Additionally, interest expense increased $0.5 million for the nine months ended September 30, 2018 as compared to the same period in 2017. The interest expense recognized in the nine months ended September 30, 2018 relates to interest expense for the Deerfield Obligation assumed as part of the Avadel Pediatric Products Acquisition, which took place in the first quarter of 2018.

Income Tax Expense

The provision for income taxes was $92,076 for the nine months ended September 30, 2018. Our annual effective tax rate as of September 30, 2018 was approximately 0%. The provision for income taxes was $3.2 million for the nine months ended September 30, 2017 due to the net income generated from the sale of CERC-501 to Janssen in August of 2017.

Liquidity and Capital Resources

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 in order to meet its cash flow needs. For the nine months ended September 30, 2018, Cerecor generated a net loss of $34.5 million and negative cash flow from operations of $1.2 million. As of September 30, 2018, Cerecor had an accumulated deficit of $92.7 million and a balance of $6.8 million in cash and cash equivalents. The Company plans to use this cash and the anticipated positive net cash flows from the Company's existing product sales to offset costs related to its pediatric rare disease preclinical programs, clinical development for our neurology programs, business development, costs associated with its organizational infrastructure and debt principal and interest payments. 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.

The Company believes it will require additional financing to continue to execute its clinical development strategy and/or 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, including our recently acquired pediatric rare disease preclinical programs, will require substantial cash inflows in excess of what the Company expects our current commercial operations to generate. The Company expects that our existing cash and cash equivalents, together with the proceeds from the execution of management's plan to complete one or more financings through the issuance of equity, which could be completed with the Company's majority owner, if necessary, and/or through the out-licensing or sale of current or future assets on or before May 2019, will enable us to fund our operating expenses, capital expenditure requirements, and other non-operating cash payments such as principal payments on our outstanding debt balances through at least November 2019.

Uses of Liquidity

Ichorion Asset Acquisition

On September 24, 2018, the Company entered into a merger agreement in which we acquired Ichorion Therapeutics, Inc. The consideration for the Ichorion Asset Acquisition at closing consisted of 5.8 million shares of the Company's Common Stock, par value $0.001 per share, as adjusted for Estimated Working Capital. The shares are subject to a lockup date of December 31, 2019. Consideration for the Merger included certain development milestones in the future worth up to an additional $15 million, payable either in shares of Company Common Stock or in cash, at the election of the Company. There will be future cash outflow for research and development costs associated with the development of the assets acquired as part of the Ichorion Asset Acquisition (CERC-801, CERC-802, CERC-803 and CERC-913).

TRx Pharmaceuticals, LLC Acquisition

On November 17, 2017, Cerecor and TRx Pharmaceuticals, LLC ("TRx") entered into a purchase agreement in which the Company acquired TRx, including subsidiary Zylera Pharmaceuticals, LLC and its franchise of pediatric medications. The consideration for the acquisition consists of $18.9 million in cash, subject to working capital adjustments, as well as approximately 7.5 million shares of our common stock having a market value of $8.5 million and certain contingent consideration with a fair value of $2.6 million.

Avadel Pediatric Products Acquisition

On February 16, 2018, the Company entered into an Asset Purchase Agreement with Avadel US Holdings, Inc. ("Avadel"), Avadel Pharmaceuticals (USA), Inc., Avadel Pediatrics, Inc., Avadel Therapeutics, LLC and Avadel Pharmaceuticals PLC (collectively "Avadel") to purchase and acquire all rights in Avadel's pediatric products. The Company made a nominal cash payment for the acquired assets, and assumed certain of Avadel's financial obligations to Deerfield CSF, LLC, which include a $15.3 million loan due in January 2021 and certain royalty obligations through February 2026.

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").

Deerfield Debt Obligation

	September 30, 2018	December 31, 2017
Deerfield Obligation	$ 15,402,224	$ —
Less: debt discount	—	—
Deerfield Obligation, net of debt discount	15,402,224	—
Less: current portion	1,050,000	—
Long term debt, net of current portion and debt discount	$ 14,352,224	$ —

Beginning in July 2018 through October 2020, the Company will pay a quarterly payment of $0.3 million to Deerfield. In January 2021, a balloon payment of $15.3 million is due. On the acquisition date, the Company determined the fair value of these payments to be $15.1 million using its estimated cost of debt. Management performed a credit risk analysis that determined the Company's credit rating to be B to BB plus the yield on a ten-year treasury security. 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 nine months ended September 30, 2018 was $0.6 million. The amounts due within the next year are included in current portion of long-term debt on our condensed consolidated balance sheets. The amounts due in greater than one year are included in long-term debt on our condensed consolidated balance sheets.

Cash Flows

The following table summarizes our cash flows for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (1,152)	$ 15,128
Investing activities	1,365	(8)
Financing activities	4,237	3,726
Net increase in cash and cash equivalents	$ 4,450	$ 18,846

Net cash provided by (used in) operating activities

Net cash used in operating activities was $1.2 million for the nine months ended September 30, 2018 and consisted primarily of a net loss of $34.5 million, offset by non-cash acquired in-process research and development of $18.7 million, depreciation and amortization of $3.3 million, non-cash stock-based compensation expense of $1.8 million, impairment of intangible assets of $1.9 million and changes in working capital, primarily, an increase in escrowed cash receivable of $3.8 million and an increase in accrued expenses of $6.2 million.

Net cash provided by operating activities was $15.1 million for the nine months ended September 30, 2017 and consisted primarily of net income of $15.0 million driven by our sale of CERC-501 to Janssen in the third quarter of 2017 for $25.0 million, partially offset by non-cash stock-based compensation expense of $0.9 million.

Net Cash provided by (used in) investing activities

Our net cash provided by investing activities was $1.4 million for the nine months ended September 30, 2018 and consisted primarily of cash received as part of the Ichorion Asset Acquisition.

Net cash used in investing activities was $7,990 for the nine months ended September 30, 2017 primarily for the purchase of property and equipment.

Net Cash provided by financing activities

Net cash provided by financing activities was $4.2 million for the nine months ended September 30, 2018, which primarily consisted of net proceeds of $3.9 million from a private placement of equity securities to Armistice Capital and $0.5 million of proceeds from option and warrant exercises, partially offset by $0.1 million payment of contingent consideration.

Net cash provided by financing activities was $3.7 million for the nine months ended September 30, 2017, which primarily consisted of net proceeds of $4.6 million from a private placement of equity securities to Armistice Capital, $1.7 million from the sale of common stock to Aspire Capital and Maxim Group under their Purchase and Distribution Agreement, partially offset by principal payments on our term loan of $2.4 million.

Off-Balance Sheet Arrangements

The Company does 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, the Company has 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

The Company maintains a short-term investment portfolio consisting mainly of highly liquid short-term money market funds, which we consider to be cash equivalents. These investments earn interest at variable rates and, as a result, decreases in market interest rates would generally result in decreased interest income. The Company does not believe that a 10% increase or decrease in interest rates would have a material effect on the fair value of our investment portfolio due to the short-term nature of these instruments, and accordingly the Company does not expect our operating results or cash flows to be materially affected by a sudden change in market interest rates.

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 Annual Report on Form 10-K 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 beneficially own more than 10% of our outstanding common stock. Zylera, which is now our wholly owned subsidiary, entered into the First Amended and Restated Distribution Agreement (the "Lachlan Agreement") with Lachlan Pharmaceuticals, an Irish company controlled by the previous owners of TRx ("Lachlan"), effective December 18, 2015. 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.

Pursuant to the Lachlan Agreement, Zylera is obligated to purchase a minimum of 20,000 units per year, or approximately $1.2 million worth of product, from Lachlan, subject to certain termination rights. Zylera must pay Lachlan $58.84 per unit and handling fees that are equal to $3.66 per unit of fully packaged Ulesfia in 2018, and escalate at a rate of 10% annually, as well as reimburse Lachlan for all product liability insurance fees incurred by Lachlan. The Lachlan Agreement also requires that Zylera make certain cumulative net sales milestone payments and royalty payments to Lachlan with a $3 million annual minimum payment unless and until there has been a "Market Change" involving a new successful competitive product. Lachlan is obligated to pay identical amounts to an unrelated third party from which it obtained rights to Ulesfia, with the payments ultimately going to Summers Laboratories, Inc. ("Summers Labs"). Because of the dispute described below, the Company has 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 issuance of the final award is scheduled for December 4, 2018. The final award has no direct bearing on the Company as 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. However, the Company has interpreted this ruling's impact on the Lachlan agreement to mean that a market change has not occurred and the minimum purchase obligation and minimum royalty provisions of the contract are active and due for any prior periods as well as going forward for any future periods. The Company has recognized a $6.9 million liability for these minimum obligations in accrued liabilities as of September 30, 2018. Under the terms of the TRx Purchase Agreement, the former TRx owners are 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 million. Furthermore, the former TRx owners are required to indemnify the Company for 50% of post-acquisition Ulesfia losses, which would include losses resulting from having to fund these minimum obligations. The Company has recorded an indemnity receivable of $6.1 million in other receivables as of September 30, 2018, which the Company believes is fully collectible. The post-acquisition minimum obligations net of amounts recorded within the indemnity receivable has been recorded in cost of goods sold for the three and nine months ended September 30, 2018. If the Company fails to make these minimum obligations timely then the Lachlan Agreement may be terminated by Lachlan, in which case the Company would no longer be able to sell the Ulesfia product, but it would also not be subject to future minimum obligations.

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, 2017, filed with the SEC on April 2, 2018 and amended on May 25, 2018 and September 7, 2018, 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. 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 the Company currently deems 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 6. Exhibits.

Exhibit Number	Description of Exhibit
2.1	Agreement and Plan of Merger, dated as of September 24, 2018, by and between Cerecor Inc., ITX Merger Sub, Inc., Second ITX Merger Sub, LLC, Ichorion Therapeutics, Inc., and David Maizenberg, as holders' representative (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed on September 26, 2018).
10.1#	Employment Agreement, dated July 12, 2018, by and between Cerecor Inc. and Joseph M. Miller (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on July 16, 2018).
10.2#	Separation and Release Agreement, dated July 13, 2018, by and between Cerecor Inc. and Mariam Morris (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on July 16, 2018).
10.3#	Employment Agreement, dated July 16, 2018, by and between Cerecor Inc. and Pericles Calias (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed on July 16, 2018).
10.4	Securities Purchase Agreement, dated as of August 17, 2018, by and among Cerecor Inc. and each of the investors (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on August 20, 2018).
10.5	Registration Rights Agreement, dated as of August 20, 2018, between Cerecor Inc. and each of the investors (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on August 20, 2018).
10.6	Lease dated September 14, 2018 by and between FB 540 Gaither, LLC and Cerecor Inc. (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on September 18, 2018).
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer and Chief 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

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 are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and are 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: November 13, 2018

/s/ Peter Greenleaf

Peter Greenleaf
Chief Executive Officer
(on behalf of the registrant and as the registrant's Principal Executive Officer)

Date: November 13, 2018

/s/ Joseph M. Miller

Joseph M. Miller
Chief Financial Officer
(Principal Financial Officer)

Exhibit 31.1

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

I, Peter Greenleaf, 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: November 13, 2018

/s/ Peter Greenleaf

Peter Greenleaf
Chief Executive Officer
(Registrant's Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF 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: November 13, 2018

/s/ Joseph M. Miller

Joseph M. Miller
Chief Financial Officer
(Registrant's Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF 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 period ending September 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Peter Greenleaf, Chief Executive Officer of the Registrant, and I, Joseph M. Miller, Chief Financial Officer of the Registrant, each 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: November 13, 2018	By:	/s/ Peter Greenleaf
	Name:	**Peter Greenleaf**
	Title:	**Chief Executive Officer** **(Registrant's Principal Executive Officer)**
Date: November 13, 2018	By:	/s/ Joseph M. Miller
	Name:	**Joseph M. Miller**
	Title:	**Chief Financial Officer** **(Registrant's Principal Financial and 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.