

PROSPECTUS



18,285,715 Shares of Common Stock

This prospectus relates to the resale from time to time of up to 4,000,000 shares of our common stock that are issuable upon the exercise of outstanding warrants to purchase our common stock and 14,285,715 shares of our common stock that are issuable upon the conversion of our Series B Non-Voting Convertible Preferred Stock that we issued to Armistice Capital Master Fund Ltd., or Armistice, in connection with a private placement completed on December 27, 2018, or the private placement. We refer to Armistice as the selling stockholder.

We are not selling any shares of common stock and will not receive any proceeds from the sale of the shares under this prospectus. We have agreed to bear all of the expenses incurred in connection with the registration of these shares. The selling stockholder will pay or assume brokerage commissions and similar charges, if any, incurred for the sale of shares of our common stock.

The selling stockholder may sell the shares described in this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholder may sell its shares of common stock in the section entitled "Plan of Distribution" on page 12. We will not be paying any underwriting discounts or commissions in this offering.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

Our common stock is traded on the NASDAQ Capital Market under the symbol "CERC." On January 16, 2019, the last reported sales price of our common stock was \$5.00 per share.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page 7 of this prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is February 11, 2019.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing a “shelf” registration process. Under this shelf registration process, the selling stockholder named in this prospectus may from time to time sell shares of our common stock in one or more offerings.

This prospectus provides you with a general description of the shares of common stock the selling stockholder may offer. Each time the selling stockholder sells shares of our common stock using this prospectus, to the extent necessary, we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the number of shares being offered, the manner of distribution, the identity of any underwriters or other counterparties and other specific terms related to the offering. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement made in an accompanying prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the accompanying prospectus supplement. You should read both this prospectus and any accompanying prospectus supplement together with the additional information described under the heading “Where You Can Find More Information” beginning on page 14 of this prospectus.

Neither we nor the selling stockholder have authorized anyone to provide you with information different from that contained in this prospectus, any accompanying prospectus supplement or in any related free-writing prospectus filed by us with the SEC. Neither we nor the selling stockholder take any responsibility for, or provide any assurance as to the reliability of, any information other than the information in this prospectus, any accompanying prospectus supplement or in any related free-writing prospectus filed by us with the SEC. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or any accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free-writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless the context indicates otherwise, references in this prospectus to “Cerecor,” “Company,” “we,” “us” and “our” refer to Cerecor Inc.

PROSPECTUS SUMMARY

This summary highlights selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Company 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 of these compounds. Under the FDA's Rare Pediatric Disease Priority Review Voucher 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 voucher that can be used to obtain priority review for a subsequent new drug application or biologics license application. The voucher 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 of these 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™.

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")-α8-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 γ 8-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: Adjunct 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 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. Upon the approval of a NDA for the treatment of a rare pediatric disease, the sponsor of such application would be eligible for a voucher that can be used to obtain priority review for a subsequent new drug application or biologics license application. The voucher may be sold or transferred an unlimited number of times. We expect to file IND applications with the FDA for two of these 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.

Private Placement

On December 27, 2018, we entered into a securities purchase agreement with Armistice, pursuant to which Armistice received warrants to purchase 4,000,000 shares of our common stock at an exercise price of \$12.50 per share, and exercised warrants to purchase 2,857,143 shares of our Series B Non-Voting Convertible Preferred Stock, which are convertible into 14,285,715 shares of our common stock.

Corporate Information

Our principal executive offices are located at 540 Gaither Road, Suite 400, Rockville, Maryland 20850 and our telephone number is (410) 522-8707. Our website address is www.cerecor.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

The trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners. We do not intend our use or display of other companies' trademarks, trade names or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies or products.

Implications of Being an Emerging Growth Company

As a company with less than \$1.0 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from specified disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions through 2020 or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1.0 billion in annual revenue, have more than \$700 million in market value of our capital stock held by non-affiliates or issue more than \$1.0 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available

exemptions. We have taken advantage of some reduced reporting burdens in this prospectus and the documents incorporated by reference into this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

THE OFFERING

The following is a brief summary of the offering. You should read the entire prospectus carefully, including “Risk Factors” and the information, including financial information relating to Cerecor Inc., included in our filings with the Securities and Exchange Commission, or SEC, and incorporated in this prospectus by reference.

Common Stock offered by us in this offering	We are not selling any shares of common stock pursuant to this prospectus.
Common stock to be offered by the selling stockholder	Up to 18,285,715 shares of our common stock.
Common stock outstanding as of January 15, 2019	40,804,189 shares
Use of Proceeds	We will not receive any proceeds from the sale of shares in this offering, but if the warrants are exercised, we will receive the exercise price of the warrants at the time of exercise, which is \$12.50 per share.
Dividend policy	We have never declared or paid cash dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the expansion and operation of our business and do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our Board of Directors.
NASDAQ Capital Market symbol	CERC
Risk Factors	See “Risk Factors” and other information included in this prospectus for a discussion of the factors you should consider before deciding to invest in shares of our common stock.

The number of shares of common stock outstanding is based on an aggregate of 40,804,189 shares outstanding as of January 15, 2019, and excludes:

- 4,246,597 shares of common stock issuable upon the exercise of options outstanding as of January 15, 2019 at a weighted average exercise price of \$4.17 per share;
- 2,234,825 shares of common stock reserved for future issuance under the Amended and Restated 2016 Equity Incentive Plan as of January 15, 2019
- 1,192,025 shares of common stock reserved for future issuance under the Employee Stock Purchase Plan as of January 15, 2019;
- 445,000 shares of nonvested restricted stock awards outstanding as of January 15, 2019;
- 4,024,708 shares of common stock issuable upon the exercise of warrants outstanding as of January 15, 2019;

- 14,285,715 shares of common stock issuable upon the conversion of Series B Non-Voting Convertible Preferred Stock outstanding as of January 15, 2019; and
- 40,000 shares of common stock issuable upon the exercise of the underwriters' unit purchase option.

Unless otherwise indicated, all information in this prospectus assumes no exercise of the outstanding options under our Amended and Restated 2016 Equity Incentive Plan or Employee Stock Purchase Plan.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described in the section entitled “Risk Factors” contained in our Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the Securities and Exchange Commission, or SEC, on April 2, 2018, as amended on May 25, 2018 and September 7, 2018, and our Quarterly Reports on Form 10-Q for the three months ended March 31, June 30 and September 30, 2018, which descriptions are incorporated in this prospectus by reference in their entirety, as well as in any prospectus supplement hereto. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and cash flow could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus include “forward-looking statements” within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Section 27A of the Securities Act of 1933, as amended, or the Securities Act. For these purposes, any statements contained or incorporated by reference herein regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management, other than statements of historical facts, are forward-looking statements. In some cases, you can identify forward-looking statements by the words “may,” “might,” “can,” “will,” “to be,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “project,” “potential,” “likely,” “continue” and “ongoing,” or the negative of these terms, or other comparable terminology intended to identify statements about the future, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. We cannot guarantee that we actually will achieve the plans, intentions or expectations expressed or implied in our forward-looking statements. There are a number of important factors that could cause actual results, levels of activity, performance or events to differ materially from those expressed or implied in the forward-looking statements we make. These important factors include our “critical accounting estimates” described in Part II, Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Application of Critical Accounting Estimates” of our most recent annual report filed on Form 10-K, and the factors set forth under and incorporated by reference in the caption “Risk Factors” in this prospectus.

You should refer to the “Risk Factors” section contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all.

Any forward-looking statement speaks only as of the date on which it is made. Although we may elect to update forward-looking statements in the future, we specifically disclaim any obligation to do so, except as may be required by law, even if our estimates change, and readers should not rely on our forward-looking statements as representing our views as of any date subsequent to the date the statements were made.

USE OF PROCEEDS

We are not selling any common stock under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholder. If the warrants are exercised, upon the exercise of the warrants for 4,000,000 shares of our common stock by payment of cash, we will receive the exercise price of the warrants, which is \$12.50 per share, or an aggregate of approximately \$50.0 million. We intend to use the proceeds from the exercise of the warrants to the continued development of our drug candidates and for working capital and general corporate purposes.

The selling stockholder will pay any underwriting discounts and commissions and expenses incurred by them for brokerage, accounting, tax or legal services or any other expenses incurred in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, NASDAQ Capital Market listing fees and fees and expenses of our counsel and our auditors.

SELLING STOCKHOLDER

In connection with the completion of the private placement in December 2018, we issued warrants to purchase up to 4,000,000 shares of our common stock to Armistice, and Armistice exercised warrants to purchase 2,857,143 shares of our Series B Non-Voting Convertible Preferred Stock, which are convertible into 14,285,715 shares of our common stock. Pursuant to the private placement, we agreed to file a registration statement, of which this prospectus is a part, with the SEC to register the disposition of the shares of our common stock issuable to Armistice upon the exercise of the warrants and the conversion of the Series B Non-Voting Convertible Preferred Stock. Armistice is party to a securities purchase agreement with the Company, dated April 26, 2017, that states as long as Armistice maintains beneficial ownership of at least 13% of our outstanding common stock, Armistice shall be entitled to designate two directors to our Board of Directors. Armistice Capital, LLC is an investment manager to Armistice, and Steven J. Boyd serves as Armistice Capital, LLC's chief investment officer. Mr. Boyd currently serves on our Board of Directors.

The following table sets forth information as of January 15, 2019, with respect to the selling stockholder for whom we are registering shares for sale to the public, the number of shares of our common stock owned by the selling stockholder prior to this offering, the percentage of common stock owned by the selling stockholder prior to this offering, the number of shares of our common stock being offered pursuant to this prospectus, the number of shares of our common stock to be owned upon completion of this offering, assuming all such shares are sold, and the percentage of common stock owned by the selling stockholder after this offering, assuming all such shares are sold.

This table is prepared based on information supplied to us by the selling stockholder. As used in this prospectus, the term "selling stockholder" includes the selling stockholder listed below, and any donees, pledges, transferees or other successors in interest selling shares received after the date of this prospectus from the selling stockholder as a gift, pledge, or other non-sale related transfer. The number of shares in the column "Number of Shares Being Offered" represents all of the shares that the selling stockholder may offer under this prospectus. The selling stockholder may sell some, all or none of their shares. The selling stockholder may sell or transfer all or a portion of their shares of our common stock pursuant to an available exemption from the registration requirements of the Securities Act. We do not know how long the selling stockholder will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale of any of the shares.

Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Exchange Act. The percentage of shares beneficially owned prior to the offering is based on 40,804,189 shares of our common stock outstanding as of January 15, 2019.

Security Holder	Shares of Common Stock Beneficially Owned Prior to Offering		Number of Shares Being Offered	Shares of Common Stock Beneficially Owned After Offering	
	Number	Percent		Number	Percent
Armistice Capital Master Fund Ltd (1)	36,455,514	89.3 %	18,285,715 (2)	18,169,799	30.7 %

(1) Armistice Capital, LLC is an investment manager to Armistice, and Steven J. Boyd, the chief investment officer of Armistice Capital, LLC, may be deemed to have voting and investment power with respect to the securities held by Armistice. Mr. Boyd serves on our Board of Directors. Armistice's address is c/o Armistice Capital, LLC, 510 Madison Ave, 7th Floor, New York, NY 10022.

(2) Includes (i) 4,000,000 shares of common stock issuable upon the exercise of warrants and (ii) 14,285,715 shares of common stock issuable upon conversion of shares of Series B Non-Voting Convertible Preferred Stock.

PLAN OF DISTRIBUTION

We are registering the shares of common stock issued or issuable to the selling stockholder to permit the resale of these shares by the selling stockholder from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholder of the shares. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholder of the common stock and any of its pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of common stock covered hereby on the NASDAQ Capital Market or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or negotiated prices. The selling stockholder may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- in transactions through broker-dealers that agree with the selling stockholder to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- gifts to charitable organizations, who may in turn sell such shares in accordance with the methods described herein;
- a combination of any such methods of sale;
- or
- any other method permitted pursuant to applicable law.

The selling stockholder may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholder (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440-1.

In connection with the sale of the common stock or interests therein, the selling stockholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholder may also sell shares of the common stock short and deliver these securities to close out its short positions or to return borrowed shares in connection with such short sales, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholder may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities, which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). Notwithstanding the foregoing, the selling stockholder has been advised that they may not use shares registered

on this registration statement to cover short sales of our common stock made prior to the date the registration statement, of which this prospectus forms a part, has been declared effective by the SEC.

The selling stockholder and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. If a selling stockholder is an “underwriter” within the meaning of Section 2(11) of the Securities Act, it will be subject to the prospectus delivery requirements of the Securities Act and may be subject to certain statutory liabilities of, including but not limited to, Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Exchange Act. Each selling stockholder has informed us that it is not a registered broker-dealer and does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the common stock. In no event shall any broker-dealer receive fees, commissions and markups, which, in the aggregate, would exceed eight percent (8%).

We are required to pay certain fees and expenses incurred by us incident to the registration of the shares. We have agreed to indemnify the selling stockholder against certain losses, claims, damages and liabilities, including liabilities under the Securities Act, and the selling stockholder may be entitled to contribution. We may be indemnified by the selling stockholder against certain losses, claims, damages and liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, or we may be entitled to contribution.

The selling stockholder will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder unless an exemption therefrom is available.

The selling stockholder has advised us that there is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the selling stockholder.

We have agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the selling stockholder without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for us to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholder will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of the common stock by the selling stockholder or any other person. We will make copies of this prospectus available to the selling stockholder and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

There can be no assurance that the selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement, of which this prospectus forms a part.

Once sold under the registration statement, of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the expansion and operation of our business and do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our Board of Directors.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon by Wyrick Robbins Yates & Ponton LLP, Raleigh, North Carolina.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2017, as set forth in their report, which is incorporated herein by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements and other information regarding registrants. Our SEC filings, including our registration statement and the exhibits and schedules thereto, are available on the SEC website at www.sec.gov.

We maintain a website at www.cerecor.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-33609. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as amended with the Commission on May 25, 2018 and September 7, 2018, pursuant to Section 13(a) of the Securities Exchange Act of 1934, as amended

(the “Exchange Act”), including the information specifically incorporated by reference into the Annual Report on Form 10-K from our Definitive Proxy Statement for the 2018 Annual Meeting of Stockholders;

- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2018, as amended with the Commission on July 27, 2018, pursuant to Section 13(a) of the Exchange Act;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2018, as filed with the Commission on August 9, 2018, pursuant to Section 13(a) of the Exchange Act;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2018, as filed with the Commission on November 13, 2018, pursuant to Section 13(a) of the Exchange Act;
- our Current Reports on Form 8-K filed pursuant to Section 13(a) of the Exchange Act on February 12 and 23, April 2, 10 and 27, May 17, July 16, August 20, September 18 and 26 and December 27, 2018; to the extent the information in such report is filed and not furnished;
- our amended Current Reports on Form 8-K/A filed pursuant to Section 13(a) of the Exchange Act on January 24, May 4, and December 4, 2018; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on October 9, 2015, including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You should direct any requests for documents to Cerecor, Inc., 540 Gaither Road, Suite 400, Rockville, Maryland 20850; telephone: (410) 522-8707.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.