

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM S-3**  
**REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933**

**CERECOR INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction  
of incorporation or organization)

**45-0705648**  
(I.R.S. Employer  
Identification Number)

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

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**Chief Executive Officer**  
**Cerecor Inc.**  
**400 E. Pratt Street, Suite 606**  
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**Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.**

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

Large accelerated filer  Accelerated filer   
Non-accelerated filer  (Do not check if smaller reporting company) 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 7(a)(2)(B) of Securities Act.

**CALCULATION OF REGISTRATION FEE**

Title of each class of securities to be registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common stock, par value \$0.001 per share	1,000,000	\$ 4.51 (2)	\$ 4,510,000 (2)	\$ 561.50

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, or the Securities Act, the shares being registered hereunder include such indeterminate

number of shares of common stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) under the Securities Act. The price per share and aggregate offering price are based on the average of the high and low prices of the Registrant's common stock on September 6, 2018, as reported on the NASDAQ Capital Market.

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The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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*The information in this prospectus is not complete and may be changed. The selling stockholder may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.*

**Subject to Completion, Dated September 7, 2018**

**PRELIMINARY PROSPECTUS**



**1,000,000 Shares of Common Stock**

This prospectus relates to the resale from time to time of up to 1,000,000 shares of our common stock that we sold to Armistice Capital Master Fund Ltd., or Armistice, in connection with a private placement completed on August 17, 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 10. 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 September 4, 2018, the last reported sales price of our common stock was \$4.78 per share.

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***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 6 of this prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.***

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**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 September 7, 2018.**

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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 12 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 an integrated pharmaceutical company dedicated to making a difference in the lives of patients. We apply a disciplined

decision making methodology as we evaluate the optimal allocation of our resources between investing in our current commercial product line, our development portfolio and acquisitions or in-licensing of new assets. The Company 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, often caused by poor diet or low levels of fluoride in drinking water and other sources. Poly-Vi-Flor and Tri-Vi-Flor are available in various formulations, including an oral suspension and chewable tablets. 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™. The Company's pipeline is led by CERC-301, which is currently in a Phase I safety study for Neurogenic Orthostatic Hypotension ("nOH"). In March 2018, Cerecor gained clearance of its Investigational New Drug ("IND") application from the U.S. Food & Drug Administration to initiate clinical studies of CERC-301 in nOH. The Company is also developing one other clinical asset, CERC-611 and two preclinical stage compounds, CERC-406 and CERC-425.

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 γ8-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

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circuits without globally affecting synaptic transmission. 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: Residual Motoric and Cognitive Impairment. 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 treatment of residual cognitive impairment symptoms such as Parkinson's disease.

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; and
- Pursuing targeted, differentiated clinical stage product candidates for rare disorders or orphan diseases.

## **Private Placement**

On August 17, 2018, we entered into a securities purchase agreement with Armistice, pursuant to which Armistice purchased 1,000,000 shares of our common stock in a private placement.

## **Corporate Information**

Our principal executive offices are located at 400 E. Pratt Street, Suite 606, Baltimore, Maryland 21202 and our telephone number is (410) 522-8707. Our website address is [www.cerecor.com](http://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

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- 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 revenues, 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.

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## 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 1,000,000 shares of our common stock.
Common stock outstanding as of September 4, 2018	34,880,370 shares
Use of Proceeds	The selling stockholder will receive all of the proceeds of the sale of shares of common stock offered from time to time pursuant to this prospectus. Accordingly, we will not receive any proceeds from the sale of shares of common stock that may be sold from time to time pursuant to this prospectus. See “Use of Proceeds” and “Plan of Distribution” on pages 8 and 10, respectively, of this prospectus.
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 34,880,370 shares outstanding as of September 4, 2018, and excludes:

- 4,220,891 shares of common stock issuable upon the exercise of options outstanding as of September 4, 2018 at a weighted average exercise price of \$4.22 per share;
- 679,468 shares of common stock reserved for future issuance under the Amended and Restated 2016 Equity Incentive Plan as of September 4, 2018
- 806,390 shares of common stock reserved for future issuance under the Employee Stock Purchase Plan as of September 4, 2018;
- 400,000 shares of nonvested restricted stock units outstanding as of September 4, 2018; and

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- 18,843,265 shares of common stock issuable upon the exercise of warrants outstanding as of September 4, 2018, including 14,285,714 shares of common stock issuable upon the exercise of warrants issued in a private placement to Armistice in 2017.

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.

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### **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 and June 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.

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### **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.

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### USE OF PROCEEDS

The selling stockholder will receive all of the proceeds of the sale of shares of common stock offered from time to time pursuant to this prospectus. Accordingly, we will not receive any proceeds from the sale of shares of common stock that may be sold from time to time pursuant to this prospectus.

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.

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### SELLING STOCKHOLDER

In connection with the completion of the private placement in August 2018, we issued 1,000,000 shares of our common stock to Armistice. 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 issued to Armistice. 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 September 4, 2018, 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 34,880,370 shares of our common stock outstanding as of September 4, 2018, including the shares of our common stock issued to Armistice in the private placement.

Shares of Common Stock Beneficially Owned Prior to	Number of	Shares of Common Stock Beneficially Owned After
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Security Holder	Offering		Shares Being Offered	Offering	
	Number	Percent		Number	Percent
Armistice Capital Master Fund Ltd (1)	31,765,714	64.6%	1,000,000(2)	30,765,714	62.6%

- (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, 22nd Floor, New York, NY 10022.
- (2) Includes 14,285,714 shares of common stock issuable upon the exercise of warrants.

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**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

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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.

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#### **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. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can also request copies of these documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including Cerecor. The address of the SEC website is [www.sec.gov](http://www.sec.gov).

We maintain a website at [www.cerecor.com](http://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.

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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 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 4 and 17, July 16 and August 20, 2018; to the extent the information in such report is filed and not furnished; 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., 400 E. Pratt Street, Suite 606, Baltimore, Maryland 21202; 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.

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## PART II

### INFORMATION NOT REQUIRED IN THE PROSPECTUS

#### Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the estimated costs and expenses payable by us in connection with the common stock being registered. The selling stockholder will not bear any portion of such expenses. All the amounts shown are estimates, except for the SEC

registration fee.

SEC registration fee	\$	561.50
Accounting fees and expenses	\$	10,000.00
Legal fees and expenses	\$	<u>50,000.00</u>
Total	\$	<u>60,561.50</u>

#### Item 15. Indemnification of Officers and Directors.

We are incorporated under the laws of the State of Delaware. Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty to the corporation or its stockholders, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock purchase or redemption in violation of Delaware corporate law or derived an improper personal benefit. Our amended and restated certificate of incorporation provides that no director shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the Delaware General Corporation Law prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnify for such expenses, which the Court of Chancery or such other court shall deem proper.

Our amended and restated certificate of incorporation provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding whether civil, criminal, administrative or investigative (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests,

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and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our amended and restated certificate of incorporation also provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee or, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If we do not assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

In addition, we have entered into indemnification agreements with certain of our current directors containing provisions, which are in some respects broader than the specific indemnification provisions contained in the Delaware general Corporation Law. The indemnification agreements require us, among other things, to indemnify our directors against certain liabilities that may arise by reason of their status or service as directors and to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

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**Item 16. Exhibits.**

<b>Exhibit Number</b>	<b>Description of Document</b>
4.1	<a href="#">Amended and Restated Certificate of Incorporation of Cerecor Inc. (incorporated by reference to the Registrant's Form 8-K filed with the Commission on May 17, 2018).</a>
4.2	<a href="#">Cerecor Inc. Second Amended and Restated Bylaws (incorporated by reference to the Registrant's Current Report on Form 8-K filed with the Commission on May 17, 2018).</a>
4.3	<a href="#">Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-8 filed on May 20, 2016).</a>
4.4	<a href="#">Securities Purchase Agreement, dated August 17, 2018, between Cerecor Inc. and the investor(s) named therein (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on August 20, 2018).</a>
4.5	<a href="#">Registration Rights Agreement, dated August 20, 2018, between Cerecor Inc. and the investor(s) named therein (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on August 20, 2018).</a>
5.1	<a href="#">Opinion of Wyrick Robbins Yates &amp; Ponton LLP.</a>
23.1	<a href="#">Consent of Ernst &amp; Young LLP, Independent Registered Public Accounting Firm.</a>
23.3	<a href="#">Consent of Wyrick Robbins Yates &amp; Ponton LLP (included in Exhibit 5.1).</a>
24.1	<a href="#">Power of Attorney (included on signature page to this Registration Statement on Form S-3).</a>

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**Item 17. Undertakings.**

The undersigned registrant hereby undertakes:

(a)(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*provided, however,* that the undertakings set forth in paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are incorporated by reference in the registration statements or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(5) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) each prospectus filed by a Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration

statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no

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statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(b) That, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of any Registrant pursuant to the foregoing provisions, or otherwise, each Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by a Registrant of expenses incurred or paid by a director, officer or controlling person of such Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, such Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(i) That, for purposes of determining any liability under the Securities Act:

(1) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective; and

(2) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Baltimore, State of Maryland, on the 7th day of September, 2018.

**CERECOR INC.**

By: /s/ Peter Greenleaf  
Peter Greenleaf  
Chief Executive Officer

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**POWER OF ATTORNEY**

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Peter Greenleaf and Joseph Miller, and each or any one of them, as his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed

pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and (iv) take any and all actions, which may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his or her substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Capacity</u>	<u>Date</u>
<u>/s/ Peter Greenleaf</u> Peter Greenleaf	Chief Executive Officer and Director ( <i>Principal Executive Officer</i> )	September 7, 2018
<u>/s/ Joseph Miller</u> Joseph Miller	Chief Financial Officer ( <i>Principal Financial and Accounting Officer</i> )	September 7, 2018
<u>/s/ Uli Hacksell, Ph.D.</u> Uli Hacksell, Ph.D.	Chairman of the Board of Directors and Director	September 7, 2018
<u>/s/ Isaac Blech</u> Isaac Blech	Vice Chairman and Director	September 7, 2018
<u>/s/ Steven J. Boyd</u> Steven J. Boyd	Director	September 7, 2018
<u>/s/ Phil Gutry</u> Phil Gutry	Director	September 7, 2018
<u>/s/ Simon Pedder, Ph.D.</u> Simon Pedder, Ph.D.	Director	September 7, 2018
<u>/s/ Magnus Persson, M.D., Ph.D.</u> Magnus Persson, M.D., Ph.D.	Director	September 7, 2018

Wyrick Robbins Yates & Ponton LLP

4101 Lake Boone Trail, Suite 300  
Raleigh, North Carolina 27607-7506

September 7, 2018

Cerecor Inc.  
400 E. Pratt Street, Suite 606  
Baltimore, Maryland 21202

Ladies and Gentlemen:

We have acted as counsel to Cerecor Inc., a Delaware corporation (the “Company”), in connection with the Registration Statement on Form S-3 (the “Registration Statement”) to be filed by the Company under the Securities Act of 1933, as amended, covering the resale by the selling stockholder of up to 1,000,000 shares of the Company’s Common Stock (the “Shares”). The Shares may be resold as set forth in the Registration Statement, any amendment thereto, and the prospectus contained therein filed pursuant to the rules and regulations promulgated under the Act.

In connection with this opinion, we have examined and relied upon the Registration Statement and related Prospectus included therein, the Company’s Amended and Restated Certificate of Incorporation, as amended, and Amended and Restated Bylaws, as amended, each as currently in effect and the originals or copies certified to our satisfaction of such other records, documents, certificates, memoranda and other instruments as we deem necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals and the conformity to originals of all documents submitted to us as copies thereof.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion as to whether any particular laws other than those identified above are applicable to the subject matter hereof. We are not rendering any opinion as to compliance with any federal or state antifraud law, rule or regulation relating to securities, or to the sale or issuance thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares have been validly issued and are fully paid, and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to the use of our name wherever appearing in the Registration Statement, including the Prospectus constituting a part thereof, and any amendments thereto.

Very truly yours,

/s/ WYRICK ROBBINS YATES & PONTON LLP

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Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in the Registration Statement (Form S-3) and related Prospectus of Cerecor Inc. filed on September 7, 2018 for the registration of 1,000,000 shares of its common stock and to the incorporation by reference therein of our report dated April 2, 2018, with respect to the consolidated financial statements of Cerecor Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2017, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Baltimore, Maryland  
September 7, 2018

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