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

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Cerecor Inc.

(Exact name of registrant as specified in its charter)

Delaware 45-0705648

(State or other Jurisdiction of Incorporation or Organization)

(I.R.S. Employer Identification No.)

Baltimore, Maryland 21202

(Address, including zip code, of registrant's principal executive offices)

400 E. Pratt Street, Suite 606

Cerecor Inc. Amended and Restated 2016 Equity Incentive Plan

(Full title of the plan)

Joseph Miller, Chief Financial Officer Cerecor Inc. 400 E. Pratt Street, Suite 606 Baltimore, Maryland 21202 (410) 522-8707

(Name, address, including zip code, and telephone number, including area code, of agent for service)

COPIES TO:

Donald R. Reynolds, Esq. Andrew J. Gibbons, Esq. Wyrick Robbins Yates & Ponton LLP 4101 Lake Boone Trail, Suite 300 Raleigh, North Carolina 27607 (919) 781-4000

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 Eychange Act

company in Rule 120-2 of the exchange Act.				
Large accelerated filer ☐ Non-accelerated filer ☐ (Do not check if smaller reporting company)	Accelerated filer □ Smaller reporting company ☑ Emerging Growth Company ☑			
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.				

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)(2)	Proposed Maximum Offering Price Per Share (3)	Proposed Maximum Aggregate Offering Price (3)	Amount of Registration Fee
Common Stock, \$0.001 par value per share	1,400,000	\$4.39	\$6,146,000	\$765.18

- (1) Consists of 1,400,000 additional shares reserved for issuance under the Cerecor Inc. Amended and Restated 2016 Equity Incentive Plan (the "Plan"). 2,515,428 shares under the Plan were registered previously under Registration Statement No. 333-211490.
- (2) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also covers any additional shares of Registrant common stock that become issuable under the Plan by reason of any stock dividend, stock split, recapitalization or other similar transaction that results in an increase in the number of outstanding shares of the Registrant's common stock.
- (3) Estimated in accordance with Rule 457(c) and (h) under the Securities Act solely for the purpose of calculating the registration fee based upon the average of the high and low prices of the Registrant's common stock on the NASDAQ Capital Market on August 9, 2018.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The information required by Item 1 is included in documents sent or given by Cerecor Inc. (the "Registrant") to participants in the plan covered by this Registration Statement pursuant to Rule 428(b)(1) of the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

The written statement required by Item 2 is included in documents sent or given by the Registrant to participants in the plan covered by this Registration Statement pursuant to Rule 428(b)(1) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents previously filed by the Registrant with the Securities and Exchange Commission (the "Commission") are incorporated herein by reference:

- (a) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as amended with the Commission on May 25, 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;
- (b) The Registrant's 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;
- (c) The Registrant's 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;
- (d) The Registrant's 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 and July 16, 2018; and
- (d) The description of the Registrant's common stock contained in its Registration Statement on Form S-1, which description is incorporated by reference into the Form 8-A filed with the Commission on October 9, 2015 pursuant to the Exchange Act and any amendment or report filed for the purpose of updating such description.

All documents or portions thereof filed, but not furnished, by the Registrant pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date hereof and prior to the filing of a post-effective amendment that indicates that all securities offered under this Registration Statement have been sold or which deregisters all securities then remaining unsold shall be considered incorporated by reference herein and to be a part hereof from the date the documents are filed. In no event, however, will any of the information, including exhibits, that we disclose under Item 2.02 and Item 7.01 of any report on Form 8-K that has been or may be, from time to time, furnished to the Commission, be incorporated by reference into or otherwise become a part of this Registration Statement.

Any statement contained in a document incorporated or considered incorporated by reference herein shall be deemed to be modified or superseded for purposes hereof to the extent that a statement contained herein (or in any other subsequently filed document that also is or is considered incorporated by reference herein) modifies or supersedes such statement. Any such statement so modified or superseded shall not be considered, except as so modified or superseded, to constitute a part hereof.

Item 4. Description of Securities.

Not applicable. The class of securities to be offered is registered under Section 12 of the Exchange Act.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The Registrant is incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law ("DGCL") provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties 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 such corporation) by reason of the fact that such person was a director, an officer, an employee, or an agent of such corporation, or is or was serving at the request of such person as a director, an officer, an employee, or an agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit, or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was unlawful. A Delaware corporation may indemnify persons who are, or are threatened to be made, a party to any threatened, pending, or completed action or suit by or in the right of the corporation by reason of the fact that such person was a director, an officer, an employee, or an agent of such corporation, or is or was serving at the request of such corporation as a director, an officer, an employee, or an agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses which such officer or director has actually and reasonably incurred. The Registrant's Amended and Restated Certificate of Incorporation and its Second Amended and Restated Bylaws provide for the indemnification of its directors and officers to the fullest extent permitted under the DGCL.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- breach of a director's duty of loyalty to the corporation or its stockholders:
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law:
- unlawful payment of dividends, stock purchase or redemption of shares;
- transaction from which the director derives an improper personal benefit.

The Registrant's Amended and Restated Certificate of Incorporation, includes such a provision. Pursuant to the Registrant's Second Amended and Restated Bylaws, expenses incurred by any director in defending any such action, suit, or proceeding in advance of its final disposition shall be paid by the Registrant upon delivery to the

Registrant of an undertaking, by or on behalf of such director, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Registrant.

Section 174 of the DGCL provides, among other things, that a director, who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption, may be held liable for such actions. A director who was either absent when the unlawful actions were approved, or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

As permitted by the DGCL, the Registrant has entered, and intends to continue to enter, into separate indemnification agreements with each of the Registrant's directors and executive officers. Under the terms of our indemnification agreements, we will be required to indemnify such persons to the fullest extent permitted by the laws of the State of Delaware against any and all Indemnificabe Claims and Indemnifialbe Losses (as defined in the form of Indemnification Agreement). We must indemnify such person (a) against any and all attorneys' and experts' fees and expenses and all other costs and expenses paid or payable in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to investigate, defend, be a witness in or participate in (including on appeal), any threatened, asserted, pending or completed claim, demand, action, suit or proceeding, whether civil, criminal, administrative, arbitrative, investigative or other, and whether made pursuant to federal, state or other law; and (b) any inquiry or investigation, whether made, instituted or conducted by the Company or any other party, including without limitation any federal, state or other governmental entity, that such person determines might lead to the institution of any such claim, demand, action, suit or proceeding; provided such person satisfies the applicable standard of conduct. The indemnification agreements also require us, if so requested, to advance within five (5) business days of such request any and all costs and expenses that such indemnitee incurred, provided that such person will repay any such advance if it is ultimately determined that such person is not entitled to be indemnified for such costs and expenses. Our second amended and restated by laws also require that such person return any such advance if it is ultimately determined that such person is not entitled to indemnification by us as authorized by the laws of the State of Delaware. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

We are not required to provide indemnification under our indemnification agreements for certain matters, including: (1) indemnification for which the indemnitee has received payment under any insurance policy or other indemnity provision; or (2) indemnification in connection with any proceedings initiated by the indemnitee against us or any of our directors or officers unless we have joined in or consented to the initiation of such proceeding. The indemnification agreements will require us, to the extent that we maintain an insurance policy or policies providing liability insurance for directors, officers, employees, agents or fiduciaries of our company or of any other corporation, partnership, joint venture, trust, employee benefit plan, or other enterprise that such person serves at the request of our company, to cover such person by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available.

We have an insurance policy covering our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act, or otherwise.

Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

EXHIBIT INDEX

The following exhibits are filed as part of this Registration Statement:

Exhibit No.	Description		
4.1	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).		
4.2	Form of Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred		
	Stock of Cerecor Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Form 8-K filed with the		
	Commission on April 28, 2017).		
4.3	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).		
5.1*	Opinion of Wyrick Robbins Yates & Ponton LLP.		
10.1	Cerecor Inc. Amended and Restated 2016 Equity Incentive Plan (incorporated by reference to Registrant's		
	Form 8-K filed with the Commission on May 17, 2018).		
23.1*	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.		
23.2*	Consent of Wyrick Robbins Yates & Ponton LLP (included in Exhibit 5.1).		
24.1*	Power of Attorney (included on the signature page to this Registration Statement on Form S-8).		

^{*}Filed herewith.

Item 9. Undertakings.

- (a) The undersigned Registrant hereby undertakes:
- (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 this 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 this 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 Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% 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 paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the Registration Statement 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 Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in 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.
- (b) The undersigned Registrant hereby undertakes 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 Section 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 the 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 the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the 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 the Registrant of expenses incurred or paid by a director, an officer or controlling person of the 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, the 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.

[THE NEXT PAGE IS THE SIGNATURE PAGE]

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-8 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 10th day of August, 2018.

CERECOR INC.

By: /s/ Peter Greenleaf

Peter Greenleaf Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Peter Greenleaf and Joseph Miller, and each of them, his or her true and lawful attorney-in-fact and agent, 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 sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and

thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Capacity	Date	
/s/ Peter Greenleaf Peter Greenleaf	Chief Executive Officer and Director (Principal Executive Officer)	August 10, 2018	
/s/ Joseph Miller Joseph Miller	Chief Financial Officer (Principal Financial and Accounting Officer)	August 10, 2018	
/s/ Uli Hacksell, Ph.D. Uli Hacksell, Ph.D.	Chairman of the Board of Directors and Director	August 10, 2018	
/s/ Isaac Blech Isaac Blech	Vice Chairman and Director	August 10, 2018	
/s/ Steven J. Boyd Steven J. Boyd	Director	August 10, 2018	
/s/ Phil Gutry Phil Gutry	Director	August 10, 2018	
/s/ Simon Pedder, Ph.D. Simon Pedder, Ph.D.	Director	August 10, 2018	
/s/ Magnus Persson, M.D., Ph.D. Magnus Persson, M.D., Ph.D.	Director	August 10, 2018	

Wyrick Robbins Yates & Ponton LLP

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

August 10, 2018

Cerecor Inc. 400 East Pratt Street Baltimore, Maryland 21202

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 filed on or about the date hereof by Cerecor Inc., a Delaware corporation (the "Registrant"), with the Securities and Exchange Commission (the "Registration Statement"), in connection with the registration under the Securities Act of 1933, as amended, of 1,400,000 shares of the Registrant's common stock, \$0.001 par value per share (the "Shares"). We understand the Shares are to be issued pursuant to the Registrant's Amended and Restated 2016 Equity Incentive Plan (the "Plan"). In our examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals and the conformity with the original of all documents submitted to us as copies thereof. As the Registrant's legal counsel, we have examined the proceedings taken, and are familiar with the proceedings proposed to be taken, in connection with the sale of the Shares pursuant to the Plan.

It is our opinion that, upon completion of the proceedings being taken or contemplated by us, as your counsel, to be taken prior to the issuance of the Shares, the Shares when issued in the manner referred to in the Registration Statement and in accordance with the Plan, will be validly issued, 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

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8), filed August 10, 2018 pertaining to the Cerecor Inc. Amended and Restated 2016 Equity Incentive Plan 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 August 10, 2018