Registration No. 333-

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

(State or other jurisdiction of incorporation or organization)

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

400 E. Pratt Street Suite 606

Baltimore, Maryland (410) 522-8707

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Cerecor Inc. 2015 Omnibus Incentive Compensation Plan (Full title of the plan)

> Blake M. Paterson, M.D. President and Chief Executive Officer Cerecor Inc. 400 E. Pratt Street Suite 606 Baltimore, Maryland (410) 522-8707

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

With copies to:

Joanne R. Soslow, Esq. Kevin S. Shmelzer, Esq. Morgan, Lewis & Bockius LLP 1701 Market Street Philadelphia, PA 19103 (215) 963-5000

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

□ (Do not check if a smaller reporting company)

Large accelerated filer

Non-accelerated filer

 Accelerated filer
 □

 Smaller reporting company
 ☑

CALCULATION OF REGISTRATION FEE

Title 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 (6)
Common Stock, par value \$0.001 per share	694,517(2)	\$ 6.50(3)	\$ 4,514,360.50	\$ 454.60
Common Stock, par value \$0.001 per share	961,418(4)	\$ 7.18(5)	\$ 6,902,981.24	\$ 695.13
Total	1,655,935	_	\$ 11,417,341.74	\$ 1,149.73

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the registrant's common stock, par value \$0.001 per share ("Common Stock"), which become issuable under the above-named plans by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of outstanding shares of Common Stock.

- (2) Represents (i) 440,281 shares of Common Stock reserved for issuance pursuant to future awards under the 2015 Cerecor Inc. Omnibus Incentive Compensation Plan (the "2015 Incentive Compensation Plan") and (ii) 254,236 shares of Common Stock reserved for issuance under the Registrant's 2011 Stock Incentive Plan (the "2011 Incentive Compensation Plan"), which are now issuable under the 2015 Incentive Compensation Plan. The number of shares reserved for issuance under the 2015 Incentive Compensation Plan will automatically increase on the first trading day in January of each calendar year, beginning in calendar year 2016, by an amount equal 3% of the total number of outstanding
- (3) Estimated Garage and the last 17 diversities as listed on the cover of the Registrant's prospectus on Form 424(b) dated October 14, 2015.
- (4) Represents 961,418 shares of Common Stock subject to outstanding stock option awards. To the extent shares of Common Stock are subject to outstanding awards and such awards are forfeited, terminated or otherwise not paid in full, the shares of Common Stock subject to such grants will again be available for issuance under the 2015 Incentive Compensation Plan.
- (5) Estimated in accordance with Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee on the basis of the weighted-average exercise price for shares of Common Stock subject to outstanding options granted pursuant to (i) the 2011 Incentive Compensation Plan, which are now considered to be issued under the 2015 Incentive Compensation Plan and (ii) the 2015 Incentive Compensation Plan.
- (6) Calculated pursuant to Section 6(b) of the Securities Act as follows: Proposed maximum aggregate offering price multiplied by .0001007.

PART 1

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.*

Item 2. Registrant Information and Employee Plan Annual Information.*

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed by Cerecor Inc. (the "Registrant") with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are hereby incorporated by reference in this Registration Statement:

- (1) The Registrant's prospectus, dated October 14, 2015, filed with the Commission pursuant to Rule 424(b) under the Securities Act, as part of the Registrant's Registration Statement on Form S-1 (File No. 333-204905) that contains the Registrant's audited financial statements for the latest fiscal year for which such statements have been filed;
- (2) The description of the Registrant's securities which is contained in the Registration Statement on Form 8-A filed with the Commission on October 9, 2015, pursuant to Section 12(b) of the Exchange Act including any amendment or report filed for the purpose of updating such description; and
- (3) The Registrant's Current Report on Form 8-K filed with the Commission on October 20, 2015.

All reports and other documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this Registration Statement, but prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents. Unless expressly incorporated into this Registration Statement, a report furnished but not filed on Form 8-K shall not be incorporated by reference into this Registration Statement to the extent furnished but not filed.

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

^{*} The documents containing the information specified in Part I will be delivered to the participants of the 2015 Incentive Compensation Plan in accordance with Rule 428(b)(1) under the Securities Act. Such documents are not required to be, and are not, filed with the Securities and Exchange Commission (the "Commission"), either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act. These documents, and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (referred to as the "DGCL") authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act.

The Registrant's amended and restated certificate of incorporation provides for indemnification of its directors, officers and agents to the maximum extent permitted by the DGCL, and the Registrant's bylaws provide for indemnification of its directors, officers and agents to the maximum extent permitted by the DGCL.

In addition, the Registrant has indemnification agreements with its directors containing provisions which are in some respects broader than the specific indemnification provisions contained in the DGCL. The indemnification agreements require the Registrant, among other things, to indemnify its 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.

The Registrant maintains insurance policies that indemnify its directors and officers against various liabilities arising under the Securities Act and the Exchange Act that might be incurred by any director or officer in his or her capacity as such.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

A list of exhibits filed herewith or incorporated by reference is contained in the Exhibit Index immediately following the signature pages and is incorporated herein by reference.

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 the Registration

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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 Commission 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; and

(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 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 this 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 that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) 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, 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.

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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-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 November 12, 2015.

CERECOR INC.

By

/s/ Blake M. Paterson, M.D. Blake M. Paterson, M.D. President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Blake M. Paterson, M.D. and Mariam E. Morris, and each one of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place, and stead, in any and all capacities, to sign any and all amendments to the Registration Statement on Form S-8 of Cerecor Inc., and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or their 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 indicated on this 12th day of November, 2015.

Signature	Title
/s/ Blake M. Paterson, M.D. Blake M. Paterson, M.D.	Director, President and Chief Executive Officer (principal executive officer)
/s/ Mariam E. Morris Mariam E. Morris	Chief Financial Officer (principal financial and accounting officer)
/s/ Eugene A. Bauer, M.D. Eugene A. Bauer, M.D.	Director
/s/ Isaac Blech Isaac Blech	Director
/s/ Phil Gutry Phil Gutry	Director
/s/ Uli Hacksell, Ph.D. Uli Hacksell, Ph.D.	Director
/s/ Magnus Persson, M.D., Ph.D. Magnus Persson, M.D., Ph.D.	Director
/s/ Behshad Sheldon Behshad Sheldon	Director

EXHIBIT INDEX

Exhibit No.	Exhibit			
4.1	Amended and Restated Certificate of Incorporation of Cerecor Inc., effective as of October 20, 2015 (previously Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on October 20, 2015 and incorporated by refer herein)			
4.2	Amended and Restated Bylaws of Cerecor Inc., effective as of October 20, 2015 (previously filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed on October 20, 2015 and incorporated by reference herein)			
5.1	Opinion of Morgan, Lewis & Bockius LLP as to the legality of the securities being registered			
23.1	Consent of Morgan, Lewis & Bockius LLP (included in the opinion filed as Exhibit 5.1)			
23.2	Consent of Ernst & Young LLP, independent registered public accounting firm			
24.1	Powers of Attorney (included on the signature page of this Registration Statement)			
99.1	Cerecor Inc. 2015 Omnibus Incentive Compensation Plan (previously filed as Exhibit 10.5 to the Registrant's Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-204905) filed on September 8, 2015 and incorporated by reference herein)			
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November 12, 2015

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

RE: Cerecor Inc., Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to Cerecor Inc., a Delaware corporation (the "Company"), in connection with the preparation of a Registration Statement on Form S-8 (the "Registration Statement") filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act") relating to the registration by the Company of an aggregate of 1,655,935 shares of Common Stock, par value \$0.001 per share, of the Company (the "Shares") issuable in connection with the Company's 2015 Omnibus Incentive Compensation Plan (the "Plan").

In connection with this opinion letter, we have examined the Registration Statement and originals, or copies certified or otherwise identified to our satisfaction, of the certificate of incorporation and bylaws of the Company, the Plan and such other documents, records and other instruments as we have deemed appropriate for the purposes of the opinion set forth herein.

We have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity with the originals of all documents submitted to us as certified, facsimile or photostatic copies and the authenticity of the originals of all documents submitted to us as copies.

Based upon the foregoing, we are of the opinion that the Shares have been duly authorized by the Company and, when issued by the Company and transferred to plan participants in the manner and on the terms described in the Plan, will be validly issued, fully paid and non-assessable.

The opinions expressed herein are limited to Delaware General Corporation Law.

We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the Commission thereunder.

Very truly yours,

/s/ Morgan, Lewis & Bockius LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Cerecor Inc. 2015 Omnibus Incentive Compensation Plan of our report dated April 29, 2015 (except for the third and fourth paragraph of Note 14, as to which the date is September 4, 2015), with respect to the consolidated financial statements of Cerecor Inc. included in its Registration Statement (Form S-1 No. 333-204905) and related Prospectus filed with the Securities Exchange Commission.

/s/ Ernst & Young LLP

Baltimore, Maryland November 12, 2015