

**Prospectus Supplement No. 36
(To Prospectus dated October 14, 2015)**



**4,000,000 shares of common stock issuable upon the
exercise of the 4,000,000 outstanding Class A warrants**

This prospectus supplement No. 36 supplements the prospectus dated October 14, 2015 filed pursuant to Rule 424(b)(4) by Cerecor Inc. (the “Company” or “we”), as supplemented by the prospectus supplement No. 1 dated October 20, 2015, the prospectus supplement No. 2 dated November 13, 2015, the prospectus supplement No. 3 dated November 23, 2015, the prospectus supplement No. 4 dated December 17, 2015, the prospectus supplement No. 5 dated December 21, 2015, the prospectus supplement No. 6 dated December 29, 2015, the prospectus supplement No. 7 dated January 5, 2016, the prospectus supplement No. 8 dated January 12, 2016, the prospectus supplement No. 9 dated January 19, 2016, the prospectus supplement No. 10 dated February 2, 2016, the prospectus supplement No. 11 dated April 11, 2016, the prospectus supplement No. 12 dated May 25, 2016, the prospectus supplement No. 13 dated May 26, 2016, the prospectus supplement No. 14 dated May 26, 2016, the prospectus supplement No. 15 dated July 20, 2016, the prospectus supplement No. 16 dated August 15, 2016, the prospectus supplement No. 17 dated August 29, 2016, the prospectus supplement No. 18 dated September 6, 2016, the prospectus supplement No. 19 dated September 12, 2016, the prospectus supplement No. 20 dated September 21, 2016, the prospectus supplement No. 21 dated September 26, 2016, the prospectus supplement No. 22 dated November 8, 2016, the prospectus supplement No. 23 dated November 29, 2016, the prospectus supplement No. 24 dated December 5, 2016, the prospectus supplement No. 25 dated January 20, 2017, the prospectus supplement No. 26 dated January 27, 2017, the prospectus supplement No. 27 dated January 30, 2017, the prospectus supplement No. 28 dated March 2, 2017, the prospectus supplement No. 29 dated March 13, 2017, the prospectus supplement No. 30 dated March 15, 2017, the prospectus supplement No. 31 dated May 9, 2017, the prospectus supplement No. 32 dated July 7, 2017, the prospectus supplement No. 33 dated July 7, 2017, the prospectus supplement No. 34 dated August 14, 2017 and the prospectus supplement No. 35 dated August 14, 2017, each filed pursuant to Rule 424(b)(3) by the Company (collectively, the “Prospectus”). Pursuant to the Prospectus, this prospectus supplement relates to the continuous offering of 4,000,000 shares of common stock underlying our Class A warrants. Each warrant was a component of a unit that we issued in our initial public offering, which closed on October 20, 2015. The components of the units began to trade separately on November 13, 2015. Each Class A warrant became exercisable on the date when the units detached and the components began to trade separately and will expire on October 20, 2018, or earlier upon redemption.

This prospectus supplement incorporates into our Prospectus the information contained in our attached Current Report on Form 8-K, which was filed with the Securities and Exchange Commission on August 25, 2017.

You should read this prospectus supplement in conjunction with the Prospectus, including any supplements and amendments thereto. This prospectus supplement is qualified by reference to the Prospectus except to the extent that the information in this prospectus supplement supersedes the information contained in the Prospectus.

This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the Prospectus, including any supplements and amendments thereto.

Our common stock and the Class A warrants are traded on The NASDAQ Capital Market under the symbols “CERC” and “CERCW,” respectively.

AN INVESTMENT IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. SEE THE SECTION ENTITLED “RISK FACTORS” BEGINNING ON PAGE 16 OF THE PROSPECTUS FOR A DISCUSSION OF INFORMATION THAT SHOULD BE CAREFULLY CONSIDERED IN CONNECTION WITH AN INVESTMENT IN OUR SECURITIES

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 supplement is August 25, 2017

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

**FORM 8-K/A
(Amendment No. 1)**

**CURRENT REPORT
Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): **August 24, 2017**

Cerecor Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-37590
(Commission
File Number)

45-0705648
(IRS Employer Identification No.)

**400 E. Pratt Street
Suite 606
Baltimore, Maryland**
(Address of Principal Executive Offices)

21202
(Zip Code)

Registrant's Telephone Number, Including Area Code: **(410) 522-8707**

Not Applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

EXPLANATORY NOTE

Cerecor Inc. (the “*Company*”) is filing this Current Report on Form 8-K/A (Amendment No. 1) in order to amend its previously filed Current Report on Form 8-K, as filed with the Securities and Exchange Commission on March 2, 2017.

Item 3.01. Notice of Delisting or Failure to Satisfy a Continued Listing Rule or Standard; Transfer of Listing.

As previously reported, on February 24, 2017 the Company received a notice (the “*Notice*”) from the Nasdaq Listing Qualifications Staff (the “*Staff*”) that the Company was not in compliance with Nasdaq Listing Rule 5550(a)(2) (the “*Rule*”), as the closing bid price of the Company’s common stock was below \$1.00 for the last 30 consecutive business days. In accordance with Nasdaq Listing Rule 5810(c)(3)(A), the Company had a period of 180 calendar days from the Notice, or until August 23, 2017, to regain compliance with the Rule.

On August 24, 2017, the Staff determined that the Company was eligible for an additional 180 calendar day period, or until February 19, 2018, to regain compliance with the Rule. To regain compliance, at any time during the 180 calendar day-compliance period, the closing bid price of the Company’s common stock must be at least \$1.00 for a minimum of ten consecutive business days. If the Company does not demonstrate compliance with the Rule by February 19, 2018, it will receive written notification that the Company’s common stock and Class A warrants (the “*Listed Securities*”) will be delisted, at which time the Company may appeal such determination. The Notice has no immediate effect on the Company’s listing on the Nasdaq Stock Market or on the trading of the Company’s Listed Securities.

The Company is presently evaluating various courses of action to regain compliance, including the implementation of a reverse stock split, which was approved by the Company’s stockholders at its 2017 Annual Meeting of Stockholders. There can be no assurance that the Company will be able to regain compliance with the Rule or will otherwise be in compliance with other Nasdaq listing criteria.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CERECOR INC.

Date: August 25, 2017

By: /s/ Mariam E. Morris
Mariam E. Morris
Chief Financial Officer

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