

Mast Therapeutics, Inc.  
Form 8-K  
February 10, 2014

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

**FORM 8-K**

**CURRENT REPORT**

**Pursuant to Section 13 or 15(d)**

**of the Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported): February 10, 2014**

**Mast Therapeutics, Inc.**

**(Exact name of registrant as specified in its charter)**

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

**001-32157**  
**(Commission**  
  
**File Number)**

**84-1318182**  
**(IRS Employer**  
  
**Identification No.)**

**12390 El Camino Real, Suite 150,**

**San Diego, California**  
**(Address of principal executive offices)**

**92130**  
**(Zip Code)**

**Registrant's telephone number, including area code: (858) 552-0866**

**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:

- .. 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))

**Item 1.01. Entry into a Material Definitive Agreement.**

On February 10, 2014, Mast Therapeutics, Inc. (the Company ) entered into a Sales Agreement (the Sales Agreement ) with Cowen and Company, LLC ( Cowen ) to sell shares of its Common Stock, par value \$0.001 (the Common Stock ), having an aggregate offering price of up to \$30,000,000 (the Shares ) from time to time, through an at-the-market equity offering program (the ATM Offering ) under which Cowen will act as sales agent.

The offer and sale of the Shares will be made pursuant to the Company s effective shelf registration statement on Form S-3 (File No. 333-179989), the base prospectus contained therein, dated May 1, 2012, and a prospectus supplement related to the ATM Offering, dated February 10, 2014.

This Current Report on Form 8-K shall not constitute an offer to sell or the solicitation of any offer to buy the Shares, nor shall there be any offer, solicitation or sale of the Shares in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of such state.

Subject to the terms and conditions of the Sales Agreement, Cowen will use its commercially reasonable efforts to sell the Shares, based upon the Company s instructions, consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and rules of the NYSE MKT LLC. The Company will set the parameters for sales of the Shares, including the number of Shares to be sold, the time period during which sales are requested to be made, any limitation on the number of Shares that may be sold in one trading day, and any minimum price below which sales may not be made. Under the Sales Agreement, Cowen may sell the Shares by any method permitted by law deemed to be an at-the-market offering , as defined in Rule 415 of the Securities Act of 1933, as amended (the Securities Act ), including sales made through the NYSE MKT LLC, on any other existing trading market for the Common Stock or to or through a market maker. In addition, if expressly authorized by the Company, Cowen may also sell Shares in privately negotiated transactions. The Company has no obligation to sell any of the Shares and may at any time suspend offers and sales under the Sales Agreement. The Company and Cowen each have the right, in their sole discretion, to terminate the Sales Agreement at any time upon prior written notice as provided in the Sales Agreement.

The Company will pay to Cowen a commission, or allow a discount, in an amount up to 3.0% of the gross sales price per share of Common Stock sold through it as sales agent under the Sales Agreement. In addition, the Company has agreed to reimburse Cowen for certain expenses it incurs in the performance of its obligations under the Sales Agreement up to a maximum of \$30,000. The Company has also agreed pursuant to the Sales Agreement to indemnify and provide contribution to Cowen against certain liabilities, including liabilities under the Securities Act.

The foregoing description of the terms of the Sales Agreement is subject to, and qualified in its entirety by, the Sales Agreement, a copy of which is filed as Exhibit 10.1 hereto and incorporated herein by reference.

The legal opinion of DLA Piper LLP (US), counsel to the Company, relating to the Shares is filed as Exhibit 5.1 hereto.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

The list of exhibits called for by this Item is incorporated by reference to the Exhibit Index filed with this report.

**SIGNATURES**

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.

Mast Therapeutics, Inc.

February 10, 2014

By: /s/ Patrick L. Keran

Name: Patrick L. Keran

Title: President and Chief Operating Officer

**Exhibit Index**

<b>Exhibit No.</b>	<b>Description</b>
5.1	Opinion of DLA Piper LLP (US)
10.1	Sales Agreement, dated February 10, 2014, by and between Mast Therapeutics, Inc. and Cowen and Company, LLC
23.1	Consent of DLA Piper LLP (US) (included in Exhibit 5.1)