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): May 27, 2015

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.)

3611 Valley Centre Drive, Suite 500, San Diego, CA (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)

k 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 sions (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))

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On May 27, 2015, Jack Lief notified Mast Therapeutics, Inc. (the "Company") of his intent to resign from the Company's Board of Directors (the "Board"). Mr. Lief's decision to resign is not due to any disagreement with the Company known to any of its executive officers on any matter relating to the Company's operations, policies or practices. Mr. Lief informed the Company that he will resign to avoid any potential conflict of interest given his position as President and Chief Executive Officer of Arena Pharmaceuticals, Inc. and Arena's development of a product candidate for the treatment of vascular diseases, including pulmonary arterial hypertension ("PAH"). Mast Therapeutics' product candidate, AIR001, has been tested in Phase 1 and Phase 2 clinical studies for the treatment of PAH and the Company currently is developing AIR001 for heart failure with preserved ejection fraction. The date of Mr. Lief's resignation from the Board has not yet been determined, but is expected to be during the third quarter of 2015.

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 thereunto duly authorized.

Date: May 28, 2015

Mast Therapeutics, Inc.

By: /s/ Brian M. Culley

Brian M. Culley Chief Executive Officer