
**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): December 17, 2018

AEGLEA BIOTHERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-37722
(Commission
File Number)

46-4312787
(IRS Employer
Identification No.)

**901 S. MoPac Expressway
Barton Oaks Plaza One
Suite 250
Austin, TX**
(Address of principal executive offices)

78746
(Zip Code)

(512) 942-2935
(Registrant's telephone number, including area code)

(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))

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.

Item 1.02 Termination of a Material Definitive Agreement

On December 17, 2018, Aeglea BioTherapeutics, Inc. (the “*Company*”) provided notice of termination to JonesTrading Institutional Services LLC (“*JonesTrading*”) to terminate its existing Capital on Demand™ Sales Agreement (the “*Prior Agreement*”) with JonesTrading, effective December 21, 2018, in connection with the Company’s entry into an Open Market Sale AgreementSM with Jefferies LLC on December 21, 2018. The Prior Agreement had established an “at-the-market offering” program through which the Company had the right to issue and sell shares of its common stock for an aggregate offering price of up to \$20.0 million. Prior to termination, the Company had sold 1,845,820 shares of its common stock pursuant to the Prior Agreement, for aggregate net proceeds of \$16.4 million. The Company will not incur any early termination penalties in connection with the termination thereof.

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.

AEGLEA BIOTHERAPEUTICS, INC.

Date: December 21, 2018

By: /s/ Charles N. York II
Charles N. York II
Chief Financial Officer