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 20, 2020

RHYTHM PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) **001-38223** (Commission File Number) **46-2159271** (IRS Employer Identification Number)

222 Berkeley Street 12th Floor Boston, MA 02116

(Address of principal executive offices, including Zip Code)

Registrant's telephone number, including area code: (857) 264-4280

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)

Dere-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))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.001 par value per share	RYTM	The Nasdaq Stock Market LLC (Nasdaq Global Market)

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 1.01 Entry into a Material Definitive Agreement.

On February 20, 2020, Rhythm Pharmaceuticals, Inc. (the "Company") entered into an Amendment No. 1 to Development and Manufacturing Services Agreement (the "Amendment") with Corden Pharma Brussels S.A. ("Corden"), which amended the Development and Manufacturing and Services Agreement between the Company and Corden (formerly Peptisyntha S.A.), dated as of July 17, 2013.

Pursuant to the terms of the Amendment, Corden will manufacture setmelanotide for the Company and the Company will make certain milestone payments to Corden in connection with the completion of testing and validation of batches of setmelanotide and the delivery of those validated batches to the Company. In addition, Corden will employ, at the Company's expense, certain employees to support Corden's work pursuant to the Amendment. The agreement is terminable by the Company at any time provided it reimburses certain costs associated with Corden's work.

A copy of the Amendment will be filed with the Company's Quarterly Report on Form 10-Q for the Company's first fiscal quarter, and the foregoing summary of the Amendment is qualified in its entirety by reference to the text of the Amendment to be filed therewith.

2

SIGNATURES

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

RHYTHM PHARMACEUTICALS, INC.

By: /s/ Hunter Smith

Hunter Smith Chief Financial Officer

Date: February 26, 2020