
**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): October 3, 2016

RESPIRERX PHARMACEUTICALS INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

1-16467
(Commission
File Number)

33-0303583
(I.R.S. Employer
Identification No.)

126 Valley Road, Suite C
Glen Rock, New Jersey
(Address of principal executive offices)

07452
(Zip Code)

Registrant's telephone number, including area code: (201) 444-4947

(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))
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Item 2.04 Triggering Events That Accelerate or Increase a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement.

On October 3, 2016, RespireRx Pharmaceuticals Inc. (the “Company”) received notice (the “Default Notice”) from the holder of two of the Company’s 10% Convertible Notes (each a “Note and collectively, the “Notes”), which matured on September 15, 2016, informing the Company that both Notes should be considered as in default, and that interest going forward should accrue at a rate of 12% per annum. The Company had previously received a demand notice with respect to those Notes, as it reported in the Current Report on Form 8-K dated September 27, 2016. Accordingly, as a result of the receipt of the Default Notice and pursuant to the terms of the Notes, those two Notes will bear interest at the increased rate of 12% per annum from the date of receipt of the Default Notice. At maturity, one Note was for an aggregate of \$25,159.31 (\$21,000 in principal amount and \$4,159.31 of accrued interest) and the other Note was for \$11,708.27 (\$10,000 in principal amount and \$1,708.27 of accrued interest).

The Notes were issued to the holder in the Company’s private placement offering from November 2014 through February 2015 (the “Note Offering”). The Notes permitted each holder, at any time, at its option and in its sole discretion, to convert the outstanding principal amount under its Note, plus accrued and unpaid interest, into a number of shares of the Company’s Common Stock, par value \$0.001 (“Common Stock”) equal to the quotient obtained by dividing the outstanding principal amount plus any accrued and unpaid interest under such Note by \$0.035 (subject to adjustment for certain events, including reverse stock splits). The Company sold Notes and Note Offering Warrants in the Note Offering to several accredited investors. The Notes initially were scheduled to mature, and Note Offering Warrants were initially exercisable through, September 15, 2015; however, on August 13, 2015, the Company elected, pursuant to the terms of the Notes, to extend the maturity date of the Notes to September 15, 2016, and to issue Extension Warrants, as provided by the Notes’ terms, on and as of September 15, 2015. Concurrently with that election, the Company extended the term of the Note Offering Warrants to September 15, 2016. A copy of the Purchase Agreement, including the form of Note and form of Warrant, entered into in connection with the Note Offering was filed by the Company as Exhibit 10.1 to its Current Report on Form 8-K filed November 12, 2014.

The Company is currently in discussions with the holder of the Notes discussed above and the other outstanding Notes from the Note Offering.

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.

Date: October 7, 2016

RESPIRERX PHARMACEUTICALS INC.
(Registrant)

By: /s/ Robert N. Weingarten

Robert N. Weingarten
Vice President and Chief Financial Officer