
**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): September 27, 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 8.01 Other Events.

On September 15, 2016, the remaining outstanding 10% Convertible Notes (each a “Note” and collectively, the “Notes”) previously issued by RespireRx Pharmaceuticals Inc. (the “Company”) during November 2014 through February 2015 matured, and principal and accrued interest under the Notes became due and payable. At the September 15, 2016 maturity date, \$276,000 of principle amount of Notes was outstanding.

On September 23, 2016, the Company received a demand notice regarding one Note with a principal amount of \$25,000 and a total amount due at maturity of \$29,951.56 (including \$4,951.56 of accrued interest). On September 27, 2016, the Company received a second demand notice from a second note Holder regarding two additional Notes held by that holder, one with a principal amount of \$21,000 and a total amount due at maturity of \$25,159.31 (including \$4,159.31 of accrued interest), and the second with a principal amount of \$10,000 and a total amount due at maturity of \$11,708.27 (including \$1,708.27 of accrued interest). Under the terms of the Notes, if the Company does not pay a Note, plus accrued interest, within five days of receiving a payment demand notice in writing, then the holder of such Note has the option to place that Note in default by notifying the Company in writing. If placed in default, at the option of the holder, such Note will bear interest at 12% per annum (or the highest rate permitted by law, if lower than 12%) until payment in full, conversion, waiver of the event of default or rescission of such notice.

The Company currently does not intend to pay within five days the aggregate amount due under the three Notes discussed above of \$66,819.14 with respect to the demand notices received September 23, 2016 and September 27, 2016. The Company is in discussions with the holders of the Notes discussed above and the other outstanding Notes.

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: September 27, 2016

RESPIRERX PHARMACEUTICALS INC.

By: /s/ Robert N. Weingarten

Robert N. Weingarten
Vice President and Chief Financial Officer
