
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**FORM 10-Q/A
Amendment No. 1**

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2016

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number: 1-16467

RESPIRERX PHARMACEUTICALS INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

33-0303583
(I.R.S. Employer
Identification Number)

**126 Valley Road, Suite C
Glen Rock, New Jersey 07452**
(Address of principal executive offices)

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

Not applicable
(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

As of August 5, 2016, the Company had 656,159,420 shares of common stock, \$0.001 par value, issued and outstanding.

EXPLANATORY NOTE

This Amendment No. 1 to Quarterly Report on Form 10-Q/A (this “Amended Report”) is being filed with the Securities and Exchange Commission to amend the Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2016 (the “Original 10-Q”) of RespireRx Pharmaceuticals Inc., solely to furnish XBRL (eXtensible Business Reporting Language) documents under Exhibit 101.

Except for the foregoing, this Amended Report speaks as of the filing date of the Original 10-Q and does not update or discuss any other Company developments after the date of the Original 10-Q. This Amended Report restates only those portions of the Original 10-Q affected by the above changes.

SIGNATURES

In accordance with the requirements of the Securities and Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

RESPIRERX PHARMACEUTICALS INC.

(Registrant)

Date: August 12, 2016

By: /s/ JAMES S. MANUSO

James S. Manuso
President and Chief Executive Officer

Date: August 12, 2016

By: /s/ ROBERT N. WEINGARTEN

Robert N. Weingarten
Vice President and Chief Financial Officer

INDEX TO EXHIBITS

The following documents are filed as part of this report:

<u>Exhibit Number</u>	<u>Description of Document</u>
10.1	Amended and Restated RespireRx Pharmaceuticals Inc. 2015 Stock and Stock Option Plan, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on April 6, 2016.
10.2	Form of Unit Exchange Agreement (including the Form of Warrant), incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on April 11, 2016.
10.3	Form of Note Exchange Agreement, incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on April 11, 2016.
31.1*	Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Officer's Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Officer's Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS**	XBRL Instance Document
101.SCH**	XBRL Taxonomy Extension Schema Document
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document

* Previously Filed.

** In accordance with Regulation S-T, the XBRL related information on Exhibit No. 101 to this Quarterly Report on Form 10-Q shall be deemed "furnished" herewith not "filed."