

**SUPPLEMENT NO. 2 DATED DECEMBER 14, 2021
(to the Offering Circular dated December 13, 2021)**

RespireRx Pharmaceuticals Inc.
126 Valley Road, Suite C
Glen Rock, New Jersey 07452
(201) 444-4947

This Offering Circular Supplement No. 2 (“Supplement No. 2”) supplements and amends the offering circular of RespireRx Pharmaceuticals, Inc. (the “Company”) dated December 13, 2021 as previously supplemented by Offering Circular Supplement No. 1 on December 14, 2021 (the “Offering Circular”), relating to Company’s Tier 2 offering under Regulation A of Section 3(6) of the Securities Act of 1933, as amended, of up to 375,000,000 shares of the Company’s common stock, par value \$0.001 per share (the “Common Stock”), at an offering price of \$0.02 per share, for a maximum offering amount of \$7,500,000 (the “Offering”). This Supplement No. 2 should be read in conjunction with the Offering Circular and is qualified by reference to the Offering Circular except to the extent that the information in this Supplement No. 2 supersedes the information contained in the Offering Circular.

On December 14, 2021, effective as of December 1, 2021, the Company and White Lion Capital, LLC (“White Lion”) entered into a third amendment (the “Note Amendment No. 3”) to that certain 8% Fixed Promissory Note, dated as of July 28, 2020, as amended on September 30, 2020 and as of July 27, 2021 (as amended, the “Commitment Note”), issued by the Company for the benefit of White Lion. The Note Amendment No. 3 changes the maturity date of the Commitment Note from December 1, 2021 to June 30, 2022, and in consideration therefor, increases the total principal amount from \$45,000 to \$53,000 and the currently outstanding principal amount from \$20,000 to \$28,000.

This Supplement No. 2 attaches the Current Report on Form 8-K that the Company filed with the U.S. Securities and Exchange Commission on December 14, 2021.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” beginning on page 10 of the Offering Circular, and under similar headings in any amendments or supplements to the Offering Circular.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the Offering Circular or this Supplement No. 1. Any representation to the contrary is a criminal offense.

The date of this Supplement No. 2 is December 14, 2021

**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 14, 2021

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))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
N/A	N/A	N/A

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.

Commitment Note Amendment

Effective as of December 1, 2021, RespireRx Pharmaceuticals Inc. (the “Company”) and White Lion Capital, LLC (“White Lion”) entered into a third amendment (the “Note Amendment No. 3”) to that certain 8% Fixed Promissory Note, dated as of July 28, 2020, as amended on September 30, 2020 and as of July 27, 2021 (as amended, the “Commitment Note”), issued by the Company for the benefit of White Lion. The Amendment No. 3 was signed on December 14, 2021. The Note Amendment No. 3 changes the maturity date of the Commitment Note from December 1, 2021 to June 30, 2022, and in consideration therefor, increases the total principal amount from \$45,000 to \$53,000 and the currently outstanding principal amount from \$20,000 to \$28,000.

The foregoing description of the Note Amendment does not purport to be complete and is qualified in its entirety by reference to the Note Amendment, a copy of which is attached to this Current Report on Form 8-K as Exhibit 99.1.

Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

The information provided in Item 1.01 of this Current Report on Form 8-K is incorporated by reference into this Item 2.03.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

Exhibit No.	Exhibit Description
99.1*	Amendment No.3 to 8% Fixed Promissory Note, dated December 14, 2021.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith

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: December 14, 2021

RESPIRERX PHARMACEUTICALS INC.
(Registrant)

By: /s/ Jeff E. Margolis

Jeff E. Margolis

SVP, CFO, Secretary and Treasurer

AMENDMENT No. 3

To

8% FIXED PROMISSORY NOTE

This Amendment No. 3 to 8% Fixed Promissory Note (this "Amendment"), effective as of December 1, 2021 (the "Effective Date"), is made by and among RespireRx Pharmaceuticals Inc., a Delaware corporation (the "Company") and White Lion Capital LLC, a Nevada limited liability company (the "Investor").

WHEREAS, Company and Investor (collectively, the "Parties") are parties to that certain 8% Fixed Promissory Note, dated July 28, 2020, as amended on September 30, 2020 as further amended effective on July 27, 2021 (the "Note"); and

WHEREAS, the Parties desire to amend the Note to increase the principal amount by \$8,000 from \$45,000 to \$53,000, and therefore, the remaining principal amount from \$20,000 to \$28,000; and

WHEREAS, the Parties also desire to amend the maturity date from December 1, 2021 to June 30, 2022.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained in the Note and this Amendment and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Amendments

(a) The heading of the Note is hereby amended and restated in its entirety to read as follows:

"Principal Amount: \$53,000"

(b) The second paragraph of the prefatory language of the Note is hereby amended and restated in its entirety to read as follows:

"THIS NOTE is a duly authorized Fixed Promissory Note of RespireRx Pharmaceuticals Inc. (the "**Company**"), designated as the Company's 8% Fixed Promissory Note due June 30, 2022 ("**Maturity Date**") in the principal amount of \$53,000 (the "**Note**")."

(c) The definition of the term "**Principal Sum**" in the definitions section of the Note is hereby amended and restated in its entirety to read as follows:

"**Principal Sum**" shall mean the original principal amount of this Note of \$53,000 as reduced by any conversions."

(d) The parenthetical in the first line of the Form of Conversion Notice attached as Exhibit A to the Note (the "**Notice**") is hereby amended and restated in its entirety to read as follows:

"(To be executed by the Holder in order to convert all or part of that certain 8% \$53,000 Fixed Promissory Note identified as the Note)"

(e) The subject line of the Notice is hereby amended and restated in its entirety to read as follows:

"Re: 8% \$53,000 Fixed Promissory Note (this "**Note**") originally issued by RespireRx Pharmaceuticals, Inc., a Delaware corporation, to White Lion Capital on July 28, 2020."

2. **Outstanding Principal Amount.** The parties hereby acknowledge that as of the December 1, 2021, the outstanding principal amount of the Note is \$28,000.

3. **Timing of Payment.** For the purposes of Rule 144 under the Securities Act of 1933, as amended, the Company acknowledges that it issued to the Investor, for value received, \$25,000 of the Principal Amount on July 28, 2020, \$15,000 of the Principal Amount on September 30, 2020, \$5,000 on July 27, 2021 and \$8,000 of Principal Amount effective on December 1, 2021.

4. **Miscellaneous.**

- (a) **Effect of this Amendment.** Except as amended hereby, the existing Note is in all respects ratified and confirmed, and all of the terms, provisions and conditions thereof shall be and remain in full force and effect and are hereby incorporated by reference, except as modified, amended and/or restated as set forth herein. In the event of any inconsistency or conflict between the provisions of the Note and this Amendment, the provisions of this Amendment will prevail and govern. All references to the existing Note shall hereinafter refer to the existing Note as amended by this Amendment.
- (b) **Governing Law.** This Amendment Agreement, and the rights and obligations of the parties hereunder, will be governed, construed and interpreted in accordance with the laws of the State of Delaware, without giving effect to principles of conflicts of law.
- (c) **Entire Agreement.** This Amendment and the Note constitute the entire agreement of the Parties with respect to the subject matter hereof and supersede all prior understandings and writings between the Parties relating thereto.
- (d) **Further Assurances.** The parties agree to execute such further documents and instruments and to take such further actions as may be reasonably necessary to carry out the purposes and intent of this Amendment.
- (e) **Counterparts.** This Amendment may be executed in counterparts and delivered by facsimile or any similar electronic transmission device, each of which shall be deemed an original, but all of which shall be considered one and the same agreement.

[Signature page follows]

IN WITNESS WHEREOF, the Company has duly executed on December 14, 2021 this Amendment with effect as of December 1, 2021.

RESPIRERX PHARMACEUTICALS INC.

By: /s/ Jeff Eliot Margolis

Name: Jeff E. Margolis

Title: Senior Vice President, Chief Financial Officer, Treasurer
and Secretary

Agreed and Accepted:

WHITE LION CAPITAL LLC

By: /s/ Yash Thukral

Name: Yash Thukral

Title: Managing Member

[Signature Page to 2020 Note Amendment No. 3]
