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): January 18, 2023

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

Delaware	**1-16467**	**33-0303583**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(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))

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

RespireRx Pharmaceuticals Inc. (OTC Markets: RSPI) and the Board of Trustees of University of Illinois, a body corporate and politic of the State of Illinois, have agreed to a second amendment ("Second Amendment") to their Exclusive License Agreement ("License Agreement"). The License Agreement is effective June 27, 2014 and was amended on August 2, 2017. The Second Amendment is effective December 15, 2022 and was signed by RespireRx and UIL on January 3, 2023 and January 18, 2023 respectively.

The parties entered into the Second Amendment in order to add new definitions for and payment obligations related to Deferred Compensation Annual Net Sales Payments and Deferred Compensation Annual Minimum Payment(s) with an extension of the term of the License in consideration for modifying financial terms and timelines.

Summarizing the above: (i) the definition of Product now includes any product or process that would have been enforceable under the Patent after the Patent Rights have expired, (ii) Deferred Compensation Annual Net Sales Payments means those payment obligations calculated on Net Sales as set forth in Schedule 2, as amended, but which only become due and payable after the expiration of the Patent Rights and shall not be due and payable while any of the Patent Rights have not yet expired and (iii) Deferred Compensation Minimum Payment(s) means those annual payment obligations set forth in Schedule 2 as amended, which shall only become due and payable after the expiration of the Patent Rights and shall not be due and payable while any of the Patent Rights have not yet expired.

The logic behind extending certain financial obligations is based in part on the filing by the Company of a new patent application that was considered for, but not incorporated into the License. In lieu of incorporating the new patent into the License, the parties agreed to the new definitions described in (ii) and (iii) above but limited to eight (8) years after the Patent Rights have expired. Therefore, the new patent is not part of the definition of Patent Rights but the amendment does provide the potential for a similar economic benefit to the Licensor as if the new patent were assigned to the Licensor and became part of the License.

A number of additional changes, deletions and additions were made to various sections of the License.

Selected portions of Schedule 2 that were amended are summarized below:

- Elimination of the $100,000 annual payments due by the Company to the Licensor from December 31, 2021 and later. That means that the unpaid amount of $100,000 for the calendar year 2021 is no longer due and payable and that no payment for 2022 is due and payable
- Addition of 4% royalty with respect to Net Sales by Licensee or Sublicensee as Deferred Compensation Annual Net Sales Payments
- The $150,000 amount that would have been due upon application for regulatory approval has now been eliminated, and instead replaced with a $350,000 amount due the first year with a market approval from the US FDA or a foreign equivalent and every year thereafter, until first commercial sale of a Product
- The $250,000 annual minimum amount that would have been due the first year of commercial sale of a Product and every year thereafter is now $400,00. The annual minimum amounts may be satisfied in part or in whole with royalty payments

- The original $75,000 milestone payment that was originally due upon the dosing of a 1st patient with a Product in a Phase II study not sponsored by the Licensor or the dosing of a 1st patient in a Phase II study with a low dose reformulation of dronbaninol, has been amended to a $10,000 payment due after the dosing of the 1st patient with a Product in a Phase II study anywhere in the world
- The $350,000 milestone payment that would have due upon dosing of the 1st patient with a Product in a Phase III study is now two payments totaling $500,000, $150,000 of which is due upon the dosing of a 1st patient in a Phase III study anywhere in the world and $350,000 due upon the earlier of enrolling 80% of the patients with a Product in the Phase III study or one year after the initiation of the Phase III study or the termination of the Phase III study
- The $500,000 and $1,000,000 milestones due after the first NDA and within twelve months of commercial sale respectively remain unchanged
- Royalty stacking provisions remain unchanged.

The above is a summary of what the Company believes are key the provisions of the Second Amendment. A copy of the entirety of the Second Amendment is filed as Exhibit 10.1 to this Current Report on Form 8-K. The above summary is qualified in its entirety by the Current Report of Form 8-K including the copy of the Second Amendment filed as Exhibit 10.1 to such report.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

A list of exhibits that are furnished and filed as part of this report is set forth in the Exhibit Index, which follows, and is incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	**Exhibit Description**
10.1*	Second Amendment to Respirerx -University Of Illinois Exclusive License Agreement
99.1**	Press Release dated January 19, 2023 - RespireRx Pharmaceuticals Inc. announces the 2nd Amendment to its License Agreement with the University of Illinois
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith.
** Furnished 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: January 23, 2023

RESPIRERX PHARMACEUTICALS INC.
(Registrant)

By: */s/ Jeff E. Margolis*
Jeff E. Margolis
SVP, CFO, Secretary and Treasurer

Exhibit 10.1

University of Illinois at Chicago Exclusive License Amendment

SECOND AMENDMENT TO RESPIRERX -UNIVERSITY OF ILLINOIS
EXCLUSIVE LICENSE AGREEMENT

This Second Amendment ("Amendment 2") to the Exclusive License Agreement is made and entered into as of the December 15, 2022 ("Effective Date"), by and between the Board of Trustees of the University of Illinois, a body corporate and politic of the State of Illinois, and having a place of business at 352 Henry Administration Building, 506 S. Wright St., Urbana, Illinois 61801 ("University") and RespireRx Pharmaceuticals Inc., a Delaware corporation, and having a place of business at 126 Valley Road, Suite C, Glen Rock, New Jersey 07452 ("Licensee"). Collectively, University and LICENSEE may be referred to as "the Parties." Individually, each may be referred to as a "Party."

WHEREAS, the Parties entered into a certain Agreement effective June 27, 2014 ("Agreement" with UIC Ref #2014-0224), which was amended effective on August 2, 2017 ("Amendment" with UIC Ref #2018-0026) to license certain Technologies and Patent Rights from University to Licensee; and

WHEREAS, the Parties wish to amend the Agreement in the manner set forth in this Amendment 2 in order to add new definitions for and payment obligations related to Deferred Compensation Annual Net Sales Payments and Deferred Compensation Annual Minimum Payment(s) with an extension of the Term of the Agreement in consideration for modifying financial terms and timelines;

NOW, THEREFORE, in consideration of the mutual covenants and agreements or terms set forth herein, and for good and valuable consideration, the receipt and sufficiency for which is hereby acknowledged, the parties hereto agree as follows:

1. The definition under Article 1 of "Product" is deleted and replaced with the following:

> "**Product(s)**" means any product or process: (a) claimed by the Patent Rights, or whose manufacture, use or production is claimed by the Patent Rights; or (b) by which the development, manufacture, reproduction, performance, use, sale or importation of, incorporates, uses or is derived from any of the Technical Information; or (c) meeting the qualifications of both (a) and (b) of this definition. Product also includes any product or process that would have been enforceable under Patent Rights after the Patent Rights have expired.

2. The following definitions shall be added to Article 1 after "Affiliate" and before "Field":

> "**Deferred Compensation Annual Net Sales Payments**" means those payment obligations calculated based on **Net Sales** set forth on Schedule 2, as amended hereby, which only become due and payable after the expiration of the **Patent Rights** and shall not be due and payable while any of the **Patent Rights** have not yet expired.
>
> "**Deferred Compensation Minimum Payment(s)**" means those annual payment obligations set forth on Schedule 2, as amended hereby, which only become due and payable after the expiration of the **Patent Rights** and shall not be due and payable while any of the **Patent Rights** have not yet expired.

3. Section 3.15 shall be deleted in its entirety and replaced by the following:

3.15 Reduced Royalty. There shall be no reduced royalty.

4. Section 3.2 shall be deleted in its entirety and replaced by the following:

3.2. Payments on Licensee's and Sublicensee's Net Sales. Licensee shall pay University a royalty on Licensee's Net Sales of Product and Sublicensee's Net Sales of Product accruing in such Royalty Period in the percentages set forth on Schedule 2, but in no less than the Annual Minimums stated for each year. For clarity, whenever Licensee has a royalty payment due to University there shall be no Deferred Compensation Annual Net Sales Payment due.

Licensee shall pay University Deferred Compensation Annual Net Sales Payments based on Net Sales of Product accruing in such Royalty Period in the percentages set forth on Schedule 2, but in no less than the Annual Minimums stated for each year. For clarity, whenever Licensee has a Deferred Compensation Annual Net Sales Payment due to University there shall be no royalty payment due.

In consideration for deferment of certain financial obligations, Licensee agrees to make a Deferred Compensation Annual Net Sales Payment, whenever due, and only after the **Patent Rights** have expired, in accordance with the following calculation:

> annually for eight (8) years from first commercial sale of a regulatory approved Product but after the **Patent Rights** have expired, Deferred Compensation Annual Net Sales Payments based on Net Sales accrued during that period in the percentages set forth on Schedule 2 for Products and in no less than the Annual Minimums for the License year set forth in Schedule 2.

In each case, it is understood that the Deferred Compensation Annual Net Sales Payment may extend Licensee's obligation to make payments to the University based on Net Sales beyond the expiration of the Patent Rights; the Parties agree such payments are considered as deferred compensation. Licensee agrees that in the case of termination, any payments due to the University on Net Sales in accordance with the terms herein shall still be due to be paid to the University in accordance with this Agreement such that termination does not waive Licensee's obligations regarding the Deferred Compensation Annual Net Sales Payment under this Agreement.

5. Section 3.4 is deleted and in its entirety and replaced by the following:

3.4 Annual Minimums. If total amounts actually paid by Licensee to University under Sections 3.2 and 3.3 for any License Year are less than the minimum amount set forth on Schedule 2 for that annual period ("**Annual Minimum**" if the period of before the **Patent Rights** have expired), then within forty-five (45) days of the end of the annual period, Licensee shall pay University the amount equal to the shortfall.

During the Term of this Agreement, but after Patent Rights have expired, if total amounts actually paid by Licensee to University under Sections 3.2 and 3.3 for any annual period are less than the amount set forth on Schedule 2 for that annual period (each a "**Deferred Compensation Annual Minimum Payment**"), then within forty-five (45) days of the end of the annual period, Licensee shall pay University the amount equal to the shortfall. However, Licensee shall make annual payments to University in no less than the amount of the **Deferred Compensation Annual Minimum Payments** for every year of commercial sales after the **Patent Rights** have expired.

In consideration for deferment of certain financials, Licensee agrees to make a **Deferred Compensation Annual Minimum Payment** in accordance with the following calculation:

annually for eight (8) years from first commercial sale of a regulatory approved Product but after the **Patent Rights** have expired, **Deferred Compensation Annual Minimum Payments** shall be based on Net Sales accrued during that period in the percentages set forth on Schedule 2 for Products and in no less than the **Deferred Compensation Annual Minimum Payments** for the License year set forth in Schedule 2.

In each case, it is understood that the **Deferred Compensation Annual Minimum Payment** may extend Licensee's obligation to make payments to the University based on Net Sales beyond the expiration of the Patent Rights; the Parties regard such as deferred compensation. Licensee agrees that in the case of termination, any payments due to the University on Net Sales in accordance with the terms herein shall still be due to be paid to the University in accordance with this Agreement such that termination does not waive Licensee's obligations under the Agreement or this Amendment 2.

6. Section 7.1 is deleted and in its entirety and replaced by the following:

7.1. Term. The **"Term"** of this Agreement shall be the period of time from the Effective Date until the later of the date: (a) of the last to lapse, expire, or terminate of the Patent Rights; or (b) when Licensee provides notice that use of Technical Information has ceased in accordance with Section 2.1; (c) of the expiration of the last form of Market Exclusivity; or (d) of the last date in which Licensee owes payments to the University in accordance with Section 3.2 and 3.4.

7. Section 7.3 shall be deleted in its entirety and replaced by the following:

7.3. Licensee Right to Terminate. Licensee may terminate this agreement at any time by written notice to University at least ninety (90) days prior to the termination date specified in the notice. However, upon termination by Licensee, termination does not waive Licensee's obligations regarding **Deferred Compensation Annual Net Sales Payment** under Section 3.2 and the **Deferred Compensation Annual Minimum Payment** under Section 3.4.

8. Section 7.4 (b) (ii) shall be deleted in its entirety and replaced by the following:

7.4. (b) (ii) Licensee's obligations under Section 3.2, 3.4, 3.11, Article 4, Sections 5.1, 5.2, 5.5 and to the extent proceedings have been initiated, Section 6.2, this Section 7.4 and Article 8 below; and

9. Schedule 2 shall be deleted in its entirety and replaced by the following:

Schedule 2 to the Exclusive License Agreement

ARTICLE 3 PAYMENTS AND REPORTS

Licensing Fee: $75,000

Royalty	
Net Sales of Product by Licensee	4%
Net Sales of Product by Sublicensee	4%

Deferred Compensation Annual Net Sales Payments	
Net Sales of Product by Licensee	4%
Net Sales of Product by Sublicensee	4%

Payment on Sublicensee Revenues

Sublicensee Revenues (non-royalty):

12.5% of all payments plus the cash value of all non-cash items received by Licensee from Sublicensee (in each case, solely where such payments and non-cash items are consideration for the grant of a sublicense for a Product covered or that would be covered under the Patent Rights), not including payments that result from Sublicensee's Net Sales.

Annual Minimums

The following Annual Minimums must be paid during the Term of the Agreement, which has been extended to include Deferred Compensation Annual Minimum Payments:

Annual Period	Annual Minimum
Year 1 (Effective Date through 12/31/2014)	$ 0
Year 2 (2015 – Due 12/31/2015) through Year 6 (2020 – Due 12/31/2020)	$ 100,000
Year 7 and every year thereafter that there is no market approval from the US FDA or a foreign equivalent	$ 0
The first year with a market approval from the US FDA or a foreign equivalent and every year thereafter until the first commercial sale of a Product	$ 350,000
The first year with a commercial sale of a Product and every year thereafter	$ 400,000

Milestone Payments and Requirements

The following one-time Milestone payments must be paid during the Term of the Agreement, which has been extended in accordance with Section 3.4 and may be treated as Deferred Compensation.

(i) $10,000 due within 5 days after dosing of the first patient with a Product in a Phase II human clinical study anywhere in the world.

(ii) $150,000 due within 5 days after dosing of the first patient with a Product in a Phase III human clinical study anywhere in the world.

(iii) $350,000 due within 5 days after the earlier date of the following (a) enrolling 80% of the patients with a Product in the Phase III human clinical study anywhere in the world, (b) one year after the initiation of the Phase III human clinical study anywhere in the world, or (c) termination of the Phase III human clinical study anywhere in the world.

(iv) $500,000 due within 5 days after the first NDA (New Drug Application) filed with the US. FDA or any other foreign equivalent regulatory agency for a Product anywhere in the world.

(v) $1,000,000 due within twelve (12) months after the first commercial sale of a Product anywhere in the world.

Commercialization and Reporting Requirements

(i) On or before 6/30/15 and every year thereafter, Licensee shall provide University with a copy of a recent and relevant report provided to Licensee's investors or to Licensee's Board of Directors that describes the previous year's activities and performance, including Product development.

(ii) By 12/31/2014, Licensee shall raise financing (which financing may be form sources including, but not limited to, debt or equity financings, grants, licensee fees or any combination of sources) of at least $500,000.

(iii) Within six months after the completion of an animal pharmokinetic study with a new formulation of dronabinol, Licensee shall schedule a consultation with the US FDA or any other foreign equivalent regulatory agency for a Product about its development plan and shall provide a copy to University within 30 days of receipt by Licensee of the minutes from such consultation.

(iv) Within 8 months of IND allowance, Licensee shall complete at least one of the following, (a) dosing of the first patient with a Product in a Phase II or Phase III human clinical study anywhere in the world that is not sponsored by the University of Illinois (for clarity, the Clinal Trial referred to in Section 2.4 of this Agreement does not satisfy this requirement), (b) dosing of the first patient in a Phase II human clinical study anywhere in the world with a low dose of dronabinol (defines as less than or equal to 1 mg), or (c) dosing of the first patient in a Phase I human clinical study anywhere in the world with a proprietary reformulation of dronabinol.

(v) Within two (2) years after IND allowance, Licensee shall dose the first patient with a Product in a Phase III human clinical study anywhere in the world. In the event that any of the clinical studies in 3.12 (iv) fail to meet its required endpoints, Licensee shall be granted an additional year to meet this requirement.

(vi) Within four (4) years after dosing of the first patient in a Phase III human clinical study, Licensee shall apply for market approval to the US. FDA or any other foreign equivalent regulatory agency for a Product anywhere in the world. In the event that any of the Phase II clinical studies fail to meet their required endpoints, Licensee shall be granted an additional two years to meet this requirement.

(vii) Within one year of obtaining market approval by the US. FDA or any other foreign equivalent regulatory agency for a Product anywhere in the world, Licensee shall have made its first commercial sale of a Product.

For avoidance of doubt, Licensee may satisfy any of the requirements described in the preceding clauses (iv) through (viii) through actions by a Sublicensee.

Royalty Stacking

(a) Maximum royalty burden in 3.16(a) for freedom to operate: (A%) = **6%**
(b) Maximum royalty burden in 3.16(b) for additional technologies: (B%) = **8%**
(c) Minimum royalty payable under 3.16(a), (b) or (c): (Y%) = **3%**

General and/or Mailed Payment Instructions:

Office of Technology Management
Attention: Director
University of Illinois at Chicago
446 College of Medicine East, MC 682
808 S. Wood
Chicago, IL 60612-7227

Checks payable to: Board of Trustees of the University of Illinois and reference this Agreement

Email notice: cashmgmt@uillinois.edu
Include with wire details (anticipated wire amount, origination) and reference this Agreement.

Wire Transfer Instructions:

Wire Transfer Instructions will be provided with the invoice for payment. In the event royalty is due, please email otmuicfinance@otm.uic.edu for current payment instructions.

ARTICLE 4 INDEMNIFICATION

Minimum Insurance Requirements

General Liability: (i) $1,000,000 per occurrence, with an aggregate minimum of $2,000,000 for personal injury or death; and an additional (ii) $1,000,000 per occurrence, with an aggregate minimum of $2,000,000 for property damage.

Product Liability: Prior to the first Product testing for or in human, or if such Product does not require such testing, then generation of the first Net Sale or $1,000,000 per occurrence and $2,000,000 in aggregate.

ARTICLE 5 NOTICES

If to University: Office of Technology Management
University of Illinois at Chicago (MC 682)
1853 West Polk Street, Suite 446
Chicago, IL 60612-7335
Phone: 312-996-7018
Fax: 312-996-1995

With copy to: OTM Legal Counsel
1737 W. Polk Suite 405 (mc/225)
Chicago, IL 60612

If to Licensee: RespireRx Pharmaceuticals Inc.
126 Valley Road, Suite C
Glen Rock, New Jersey 07452
(917) 834-7206
jmargolis@respirerx.com
FEIN: 33-0303583

In the case of any inconsistency between this Amendment 2 and the Agreement, this Amendment 2 shall govern. Except as expressly provided in this Amendment 2, all other terms, conditions, and provisions of the Agreement (as amended by Amendment 1) shall continue in full force and effect as provided therein.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment 2 to the Agreement to be executed by their respective duly authorized officers or representatives effective as of the Effective Date.

THE BOARD OF TRUSTEES
OF THE UNIVERSITY OF ILLINOIS

By: */s/ Paul N. Ellinger* 01/18/2023
Paul N. Ellinger, Interim Comptroller Date

/s/ Suseelan Pookote 01/18/2023
Signature of Comptroller Delegate Date

Suseelan Pookote, Director, UIC-OTM
Printed Name and Title of Comptroller Delegate

RespireRx Pharmaceuticals Inc

By: */s/ Jeff Eliot Margolis* 01/03/2023
Date

Jeff Eliot Margolis, SVP, CFO, Treasurer, Secretary
Printed Name/Title

Exhibit 99.1

RespireRx Pharmaceuticals Inc. Announces the 2nd Amendment to its License Agreement with the University of Illinois

Glen Rock, N.J., January 23, 2023 /Globe Newswire - RespireRx Pharmaceuticals Inc. (OTC Markets: RSPI) ("RespireRx" or the "Company"), a leader in the discovery and development of innovative and revolutionary treatments to combat diseases caused by disruption of neuronal signaling, is pleased to announce that the Company and the Board of Trustees of University of Illinois, a body corporate and politic of the State of Illinois ("UIL"), have agreed to a second amendment ("Second Amendment") to their Exclusive License Agreement ("License Agreement"). The License Agreement is effective June 27, 2014 and was amended on August 2, 2017. The Second Amendment is effective December 15, 2022 and was signed by RespireRx and UIL on January 3, 2023 and January 18, 2023 respectively.

The parties entered into the Second Amendment in order to eliminate accrued financial obligations to UIL and reduce future obligations. Annual $100,00 payments by the Company to UIL are eliminated and the unpaid amount of $200,000 for calendar years 2021 and 2022 are no longer due and payable. The $75,000 payment that was due after the dosing of the 1st patient in a Phase II study anywhere in the world is now reduced to $10,000.

In consideration of these changes and the changes described below as well as others, UIL has been given an extension in the term of the License and a deferred compensation obligation of RespireRx including the 4% royalty on net sales due to UIL has been extended for up to 8 years after the original patent rights expire by including a royalty on the net sales protected by a patent application submitted by the Company describing a new formulation of dronabinol. Guaranteed minimum annual payments of $350,000 begin the first year with a market approval from the US FDA or a foreign equivalent and increase to $400,000 beginning the first year of a commercial sale of a product. Some or all of these annual minimum payments may be satisfied by royalty payments. Three annual minimum payments associated with the application for product approval, the actual approval and first commercial sale that had totaled $600,000 are now $750,000. The $350,000 milestone payment that would have been due upon the dosing of the 1st patient in a Phase III study is now two payments totaling $500,000, $150,000 of which is due upon the dosing of a 1st patient in a Phase III study anywhere in the world and $350,000 due upon the earlier of enrolling 80% of the patients in a Phase III study or one year after the initiation of the Phase III study or the termination of the Phase III study. Finally, a $500,000 payment is due within 5 days of the filing of a NDA or foreign equivalent and $1,000,000 is due within twelve months of first commercial sale of a product.

Arnold Lippa, PhD, RespireRx's Executive Chairman, Interim President, Interim CEO and CSO and a director or ResolutionRx stated: "As we have previously announced, the Company has formed ResolutionRx, an unlisted public Australian company, for the purpose of developing pharmaceutical cannabinoids, with an initial focus on our proprietary formulated dronabinol. It is our intention to transfer all of our cannabinoid assets, including the License Agreement and certain liabilities, into ResolutionRx. The terms of this Second Amendment have relieved RespireRx and ultimately ResolutionRx of some of the short term financial liabilities and allows it focus of drug development."

The above is a summary of what the Company believes are key provisions of the Second Amendment. It is intended that a copy of the entirety of the Second Amendment will be filed as an Exhibit to a Current Report on Form 8-K shortly. The above summary is qualified in its entirety by the Current Report of Form 8-K including the copy of the Second Amendment filed as an Exhibit such report.

About RespireRx Pharmaceuticals Inc.

RespireRx Pharmaceuticals Inc. is a leader in the discovery and development of medicines for the treatment of psychiatric and neurological disorders, with a focus on treatments that address conditions affecting millions of people, but for which there are few or poor treatment options, including obstructive sleep apnea ("OSA"), attention deficit hyperactivity disorder ("ADHD"), epilepsy, pain, recovery from spinal cord injury ("SCI"), and certain neurological orphan diseases. RespireRx is developing a pipeline of new and re-purposed drug products based on our broad patent portfolios for two drug platforms: (i) pharmaceutical cannabinoids, which include dronabinol, a synthetic form of Δ9-tetrahydrocannabinol ("Δ9-THC") that acts upon the nervous system's endogenous cannabinoid receptors and (ii) neuromodulators, which include AMPAkines and GABAkines, proprietary chemical entities that positively modulate (positive allosteric modulators or "PAMs") AMPA-type glutamate receptors and $GABA_A$ receptors, respectively.

The Company holds exclusive licenses and owns patents and patent applications or rights thereto for certain families of chemical compounds that claim the chemical structures and their uses in the treatment of a variety of disorders, as well as claims for novel uses of known drugs.

***ResolutionRx: Pharmaceutical Cannabinoids*.**

ResolutionRx Ltd (Australian Company Number a/k/a ACN 664 925 651) was formed in Australia on 11th January 2023 by RespireRx as an unlisted public company. RespireRx intends to contribute, sub-license, assign or otherwise make available to ResolutionRx, its cannabinoid drug development program subject to certain liabilities. ResolutionRx would then engage in the research and development ("R&D") associated with that program, initially for the development of a new formulation of dronabinol for use in a Phase 3 clinical trial and the filing of regulatory approval for the treatment of obstructive sleep apnea ("OSA"). The current total budget for that program over the next several years is approximately US$16.5 million, most, but not all of which is expected to be eligible for the R&D tax refund. Dronabinol, a synthetic version of Δ-9-THC, a naturally occurring substance in the cannabis plant, has already demonstrated significant improvement in the symptoms of OSA in two Phase 2 clinical trials. OSA is a serious respiratory disorder that impacts an estimated 29.4 million people in the United States and that has been linked to increased risk for hypertension, heart failure, depression, and diabetes. There are no approved drug treatments for OSA.

Because dronabinol is already FDA approved for the treatment of AIDS related anorexia and chemotherapy induced nausea and vomiting, the Company further believes that its re-purposing strategy would only require approval by the FDA of a 505(b)(2) new drug application ("NDA"), an efficient regulatory pathway that allows the use of publicly available data.

EndeavourRx: Neuromodulators

GABAkines. Under a License Agreement with the University of Wisconsin-Milwaukee Research Foundation, Inc. ("UWMRF") and on behalf of its EndeavourRx business unit, RespireRx has licensed rights to certain selectively acting GABAkines because of their ability to selectively amplify inhibitory neurotransmission at a highly specific, subset of $GABA_A$ receptors, thus producing a unique efficacy profile with reduced side effects. Preclinical studies have documented their efficacy in a broad array of animal models of interrelated neurological and psychiatric disorders including epilepsy, pain, anxiety, and depression in the absence of or with greatly reduced propensity to produce sedation, motor-impairment, tolerance, dependence and abuse. The Company currently is focusing on developing KRM-II-81 for the treatment of epilepsy and pain.

KRM-II-81 has displayed a high degree of anti-convulsant activity in a broad range of preclinical studies, including in treatment resistant and pharmaco-resistant models. Not only was KRM-II-81 highly effective in these models, but pharmaco-resistance or tolerance did not develop to its anti-convulsant properties. These latter results are particularly important because pharmaco-resistance occurs when medications that once controlled seizures lose efficacy as a result of chronic use and it is a principal reason some epileptic patients require brain surgery to control their seizures. In support of its potential clinical efficacy, translational studies have demonstrated the ability of KRM-II-81 to dramatically reduce epileptiform electrical activity when administered in situ to brain slices excised from treatment resistant epileptic patients undergoing surgery.

In addition, KRM-II-81 has displayed a high degree of analgesic activity in a broad range of preclinical studies. In intact animal models of pain, the analgesic efficacy of KRM-II-81 was comparable to or greater than commonly used analgesics. At the same time, KRM-II-81 did not display side effects such as sedation and motor impairment, but even more importantly, it did not produce tolerance, dependence, respiratory depression or behavioral changes indicative of abuse liability, which are produced by opioid narcotics and are at the heart of the opioid epidemic.

AMPAkines. Through an extensive translational research effort from the cellular level through Phase 2 clinical trials, the Company has developed a family of novel, low impact AMPAkines, including CX717, CX1739 and CX1942 that may have clinical application in the treatment of CNS-driven neurobehavioral and cognitive disorders, spinal cord injury, neurological diseases, and certain orphan indications. Our lead clinical compounds, CX717 and CX1739, have successfully completed multiple Phase 1 safety trials. Both compounds have also completed Phase 2 proof of concept trials demonstrating target engagement, by antagonizing the ability of opioids to induce respiratory depression.

AMPAkines have demonstrated positive activity in animal models of ADHD, results that have been extended translationally into statistically significant improvement of symptoms observed in a Phase 2 human clinical trial of CX717 in adult patients with ADHD. Statistically significant therapeutic effects were observed within one week. We believe AMPAkines may represent a novel, non-stimulant treatment for ADHD with a more rapid onset of action than alternative non stimulants, such as Straterra® (atomoxetine), and without the drawbacks of amphetamine-type stimulants.

In a series of important studies funded by grants from the National Institutes of Health and published in a number of peer reviewed articles, Dr. David Fuller (University of Florida), a long-time RespireRx collaborator, has demonstrated the ability of CX1739 and CX717, the Company's lead AMPAkines, to improve motor nerve activity and muscle function in a number of animal models of spinal cord injury (SCI).

Additional information about RespireRx and the matters discussed herein can be obtained on the Company's web-site at www.RespireRx.com or in the Company's filings with the Securities and Exchange Commission at www.sec.gov.

Not a Securities Offering or Solicitation

This communication shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sales of securities in any jurisdiction in which such offer, solicitation or sale of securities would be unlawful before registration or qualification under the laws of such jurisdiction.

Cautionary Note Regarding Forward-Looking Statements

This press release contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the Company intends that such forward-looking statements be subject to the safe harbor created thereby. These might include statements regarding the Company's future plans, targets, estimates, assumptions, financial position, business strategy and other plans and objectives for future operations, and assumptions and predictions about research and development efforts, including, but not limited to, preclinical and clinical research design, execution, timing, costs and results, future product demand, supply, manufacturing, costs, marketing and pricing factors.

In some cases, forward-looking statements may be identified by words including "assumes," "could," "ongoing," "potential," "predicts," "projects," "should," "will," "would," "anticipates," "believes," "intends," "estimates," "expects," "plans," "contemplates," "targets," "continues," "budgets," "may," or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words, and such statements may include, but are not limited to, statements regarding (i) future research plans, expenditures and results, (ii) potential collaborative arrangements, (iii) the potential utility of the Company's product candidates, (iv) reorganization plans, and (v) the need for, and availability of, additional financing. Forward-looking statements are based on information available at the time the statements are made and involve known and unknown risks, uncertainties and other factors that may cause our results, levels of activity, performance or achievements to be materially different from the information expressed or implied by the forward-looking statements in this press release.

These factors include but are not limited to, regulatory policies or changes thereto, available cash, research and development results, issuance of patents, competition from other similar businesses, interest of third parties in collaborations with us, and market and general economic factors, and other risk factors disclosed in "Item 1A. Risk Factors" in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as filed with the SEC on April 15, 2022 (the "2021 Form 10-K").

You should read these risk factors and the other cautionary statements made in the Company's filings as being applicable to all related forward-looking statements wherever they appear in this press release. We cannot assure you that the forward-looking statements in this press release will prove to be accurate and therefore prospective investors, as well as potential collaborators and other potential stakeholders, are encouraged not to place undue reliance on forward-looking statements. You should read this press release completely. Other than as required by law, we undertake no obligation to update or revise these forward-looking statements, even though our situation may change in the future.

We caution investors, as well as potential collaborators and other potential stakeholders, not to place undue reliance on any forward-looking statement that speaks only as of the date made and to recognize that forward-looking statements are predictions of future results, which may not occur as anticipated. Actual results could differ materially from those anticipated in the forward-looking statements and from historical results, due to the risks and uncertainties described in the 2021 Form 10-K and in this press release, as well as others that we may consider immaterial or do not anticipate at this time. These forward-looking statements are based on assumptions regarding the Company's business and technology, which involve judgments with respect to, among other things, future scientific, economic, regulatory and competitive conditions, collaborations with third parties, and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond the Company's control. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we do not know whether our expectations will prove correct. Our expectations reflected in our forward-looking statements can be affected by inaccurate assumptions that we might make or by known or unknown risks and uncertainties, including those described in the 2021 Form 10-K and in this press release. These risks and uncertainties are not exclusive and further information concerning us and our business, including factors that potentially could materially affect our financial results or condition, may emerge from time to time.

For more information about the risks and uncertainties the Company faces, see "Item 1A. Risk Factors" in our 2021 Form 10-K. Forward-looking statements speak only as of the date they are made. The Company does not undertake and specifically declines any obligation to update any forward-looking statements or to publicly announce the results of any revisions to any statements to reflect new information or future events or developments. We advise investors, as well as potential collaborators and other potential stakeholders, to consult any further disclosures we may make on related subjects in our annual reports on Form 10-K and other reports that we file with or furnish to the SEC.

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