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): March 22, 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**	**07452**
(Address of principal executive offices)	**(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.

Indemnification Agreement

As discussed in more detail below, on March 22, 2023, the Board of Directors (the "Board") of RespireRx Pharmaceuticals Inc. (the "Company") appointed a new director, Joseph Siegelbaum to the Board who is considered to be an independent director. In connection with the appointment and in conformity with its corporate policy of indemnifying all directors and officers, the Board also agreed to enter into an indemnification agreement with Mr. Siegelbaum substantially in the form applicable to all other directors and officers of the Company, namely, each existing director of the Company, Arnold S. Lippa and Jeff E. Margolis, both of whom are also officers of the Company, and with the new director namely, Joseph Siegelbaum as an independent director (each director and/or officer, an "Indemnitee"). The Company will indemnify each Indemnitee when such Indemnitee is a party or threatened to become a party, by virtue of being a director or officer of the Company, from the costs and expenses, fines and certain other amounts in connection with certain proceedings, including proceedings in the right of the Company, so long as such Indemnitee acted in good faith and reasonably believed that such actions were not opposed to the best interests of the Company, as determined (i) by members of the Board of the Company not parties to such proceedings, (ii) by independent counsel if a quorum of disinterested directors is not available or so directs, or (iii) by a majority vote of stockholders of the Company, exclusive of any Indemnitee claiming indemnification who is also a stockholder of the Company, who shall not vote. The indemnifications provided by the form of Indemnification Agreement or any other indemnification pursuant to the Certificate of Incorporation or By-Laws are not exclusive of any other remedies that an Indemnitee may have.

Awards to Officers and Directors as Compensation

Also in connection with the appointment of the new director, as described below, on March 22, 2023, the Board agreed that Mr. Siegelbaum was entitled to quarterly compensation for his service as a director at the rate of $20,000 per quarter, earning the full quarter fee for participation in meetings of the Board in the month of March 2023, if any. In addition, Mr. Siegelbaum is eligible for bonuses and may also be eligible for additional fees at the discretion of a majority of the disinterested members of the Board, including but not limited to attendance at Board meetings other than the normal quarterly meetings and committee membership or meeting attendance. The Board may make awards to Mr. Siegelbaum under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan as well as the Company's 2015 Stock and Stock Option Plan, as amended.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On March 22, 2023, the Company's Board of Directors ("Board") took action by unanimous written consent without a meeting. The action taken by the Board was the appointment of Mr. Joseph Siegelbaum to the Board as an independent director. The Company has not yet determined on which committees of the Board Mr. Siegelbaum will serve.

Mr. Siegelbaum was a partner at the law firm of Goodwin Procter LLP in New York, NY from 2000 until his retirement at the end of 2021. Before that he was the co-founder and Managing Partner at the law firm of Friedman Siegelbaum in Roseland, NJ from 1977 to 2000. He served as a member of the Board of Directors and President of the New York March of Dimes from 2004 through 2022. Mr. Siegelbaum also served as a member of the Board of Directors of Oxfam America from 2018 through 2021. He is a graduate of Franklin & Marshall College and Rutgers Law School, where he was Articles Editor of the Rutgers Law Review.

The information provided in Item 1.01 under the headings "Indemnification Agreements" and "Awards to Officers and Director as Compensation" is incorporated herein by reference.

Item 7.01 Regulation FD Disclosure.

The press release announcing the Company's newly elected director is attached as Exhibit 99.1.

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
99.1*	Press Release dated March 28,2023
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* 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: March 28, 2023

RESPIRERX PHARMACEUTICALS INC.
(Registrant)

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

Exhibit 99.1

RespireRx Pharmaceuticals Inc. Announces the Appointment Joseph Siegelbaum as an Independent Member of the Board of Directors

Glen Rock, N.J., March 28, 2023/Globe Newswire –RespireRx Pharmaceuticals Inc. (OTC: RSPI) ("RespireRx" or the "Company") is pleased to announce that on March 22, 2023, Mr. Joseph Siegelbaum was appointed to the Board of Directors as an independent director.

This press release contains forward looking statements. Please carefully read the sections below entitled "*Not a Securities Offering"* and "*Cautionary Note Regarding Forward-Looking Statements."*

Mr. Siegelbaum was a partner at the law firm of Goodwin Procter LLP in New York, NY from 2000 until his retirement at the end of 2021. Before that he was the co-founder and Managing Partner at the law firm of Friedman Siegelbaum in Roseland, NJ from 1977 to 2000. He served as a member of the Board of Directors and President of the New York March of Dimes from 2004 through 2022. Mr. Siegelbaum also served as a member of the Board of Directors of Oxfam America from 2018 through 2021. He is a graduate of Franklin & Marshall College and Rutgers Law School, where he was Articles Editor of the Rutgers Law Review.

Dr. Lippa, the Company's Executive Chairman of the Board of Directors, Interim CEO, Interim President, and Chief Scientific Officer said, "We are extremely pleased that Joe Siegelbaum has accepted our invitation to join our Board. He is an invaluable addition to the team.

Mr. Siegelbaum stated, "I am very excited to join the RespireRx Board and believe that the assets under development at the Company are promising and potentially able to deliver important clinical benefit to very under-served patient groups."

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 (i) through its ResolutionRx Ltd subsidiary, 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) through its EndeavourRx business unit, 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. RespireRx and ResolutionRx are developing a pipeline of re-purposed and new drug products based on their broad patent portfolios for the above two drug platforms including obstructive sleep apnea ("OSA"), attention deficit hyperactivity disorder ("ADHD"), epilepsy, pain, recovery from spinal cord injury ("SCI"), and certain neurological orphan diseases.

RespireRx 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.

Pharmaceutical Cannabinoids, Dronabinol. RespireRx's wholly-owned subsidiary, ResolutionRx Ltd., an unlisted public Australian company, is developing dronabinol, Δ-9-THC, a synthetic version of the naturally occurring substance in the cannabis plant, for the treatment of OSA, a serious respiratory disorder that impacts more than 95 million people in the United States, Australia, Germany and the United Kingdom. It has been linked to increased risk for hypertension, heart failure, depression, and diabetes, with an annual economic cost in the United States alone of $162 billion according to the AASM (American Academy of Sleep Medicine). There are no approved drug treatments for OSA.

Two Phase 2 clinical trials have been completed demonstrating the ability of dronabinol to significantly reduce the symptoms of OSA and, subject to raising sufficient financing (of which no assurance can be provided) and pending the necessity for and, if required, the approval by the Therapeutic Goods Administration (TGA), Australia's equivalent to the FDA, ResolutionRx plans to commence a pharmacokinetic/pharmacodynamic study for a recently discovered and to-be-developed formulation followed by a Phase 3 clinical study for the treatment of OSA with the new formulation. Because dronabinol is already FDA approved for the treatment of AIDS related anorexia and chemotherapy induced nausea and vomiting, ResolutionRx 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. Similar regulatory equivalents to the 505(b)(2) are available in Australia and Europe.

EndeavourRx: Neuromodulators

AMPAkines. Through an extensive translational research effort from the cellular level through Phase 2 clinical trials, RespireRx 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. RespireRx's 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. RespireRx believes 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, RespireRx's lead AMPAkines, to improve motor nerve activity and muscle function in animal models of spinal cord injury (SCI).

GABAkines. Under a License Agreement with the University of Wisconsin-Milwaukee Research Foundation, Inc. ("UWMRF"), 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. RespireRx is currently 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.

Additional information about RespireRx and the matters discussed herein can be obtained on RespireRx's web-site at www.RespireRx.com or in its filings with the Securities and Exchange Commission at www.sec.gov. In addition, information about ResolutionRx Ltd may be found at www.resolutionrx.com.au.

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 RespireRx intends that such forward-looking statements be subject to the safe harbor created thereby. These might include statements regarding RespireRx'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 RespireRx'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 RespireRx's 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 RespireRx, and market and general economic factors, and other risk factors disclosed in "Item 1A. Risk Factors" in RespireRx'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 RespireRx's filings as being applicable to all related forward-looking statements wherever they appear in this press release. RespireRx 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, RespireRx undertakes no obligation to update or revise these forward-looking statements, even though RespireRx's situation may change in the future.

RespireRx cautions 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 RespireRx may consider immaterial or does not anticipate at this time. These forward-looking statements are based on assumptions regarding RespireRx'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 RespireRx's control. Although RespireRx believes that the expectations reflected in its forward-looking statements are reasonable, it does not know whether its expectations will prove correct. RespireRx's expectations reflected in its forward-looking statements can be affected by inaccurate assumptions that it 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 RespireRx and its business, including factors that potentially could materially affect RespireRx's financial results or condition, may emerge from time to time.

For more information about the risks and uncertainties RespireRx faces, see "Item 1A. Risk Factors" in RespireRx's 2021 Form 10-K. Forward-looking statements speak only as of the date they are made. RespireRx 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. RespireRx advises investors, as well as potential collaborators and other potential stakeholders, to consult any further disclosures it may make on related subjects in its annual reports on Form 10-K and other reports that RespireRx files with or furnishes to the SEC.

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