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): May 6, 2021

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))

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 7.01. Regulation FD Disclosure.

Beginning on and after May 6, 2021, RespireRx Pharmaceuticals Inc. (the "Company") will participate in meetings with third parties in which a corporate slide presentation will be presented. The presentation includes certain forward-looking information. A copy of the presentation materials is attached as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference. The corporate slide presentation attached as Exhibit 99.1 will be used to test the waters with respect to the Company's anticipated Regulation A offering. As of May 6, 2021, Form 1-A had not yet been submitted to the Securities and Exchange Commission.

The information in this Item 7.01 and the document attached as Exhibit 99.1 is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), nor otherwise subject to the liabilities of that section, nor incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

Exhibit Number	Exhibit Description
99.1	RespireRx Pharmaceuticals Inc. Corporate Presentation

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: May 6, 2021

RESPIRERX PHARMACEUTICALS INC.
(Registrant)

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

Exhibit 99.1

RespireRx Pharmaceuticals Inc

OTCQB: RSPI

SUMMARY PRESENTATION

May 2021

CAUTIONARY NOTES

RespireRx Pharmaceuticals Inc

FORWARD LOOKING STATEMENTS

This presentation contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 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 products 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 presentation.

You should read these risk factors and the other cautionary statements made in the Company's presentation and filings with the Securities and Exchange Commission ("SEC") as being applicable to all related forward-looking statements. We cannot assure you that the forward-looking statements in this presentation will prove to be accurate and therefore prospective investors are encouraged not to place undue reliance on forward-looking statements. You should read this presentation completely but should also read the Company's recent annual report on Form 10-K in its entirety. 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 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 this presentation, our recent annual report on Form 10-K and other filings made with the SEC, as well as other risks and uncertainties 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 this presentation and our filings with the SEC. 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 recent annual report on Form 10-K as of December 31, 2020. 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 to consult any further disclosures we may make on related subjects in our annual reports on Form 10-K, our quarterly reports on Form 10-Q and our current reports on Form 8-K that we file with or furnish to the SEC.

CAUTIONARY NOTES (cont'd)

RespireRx Pharmaceuticals Inc

NOT A SECURITIES OFFERING

This presentation does not constitute an offer to sell, a solicitation of an offer to buy, or a recommendation of any security or any other product or service by RespireRx Pharmaceuticals Inc. (the "Company") or any other third party regardless of whether such security, product or service is referenced in this presentation. Furthermore, nothing in this presentation is intended to provide tax, legal, or investment advice and nothing in this presentation should be construed as a recommendation to buy, sell, or hold any investment or security or to engage in any investment strategy or transaction. We do not represent that the securities, product development opportunities or strategies, or any other features of the Company discussed in this presentation are suitable for any particular investor. You are solely responsible for determining whether any investment, investment strategy, security or related transaction is appropriate for you based on your personal investment objectives, financial circumstances and risk tolerance. You should consult your business advisor, attorney, or tax and accounting advisor regarding your specific business, legal or tax situation.

An investment in the Company is subject to significant risks. For more information about the risks and uncertainties the Company faces, see "Item 1A. Risk Factors" in our recent annual report on Form 10-K as of December 31, 2020. We advise investors to consult any further disclosures we may make in our annual reports on Form 10-K, our quarterly reports on Form 10-Q and our current reports on Form 8-K that we file with or furnish to the SEC.

This presentation is being provided for informational purposes only. The Company has not determined whether to proceed with a transaction and in what form and undertakes no obligation to proceed with any transaction. No money or other consideration is being solicited, and if sent, will not be accepted.
Offers will only be made and orders solicited during a formal offering period. No sales will be made or commitments to purchase accepted until the offering statement is qualified.
Any offer can be withdrawn or revoked at any time before notice of its acceptance is given after the qualification date.
A prospective purchaser's indication of interest is non-binding, it involves no obligation or commitment of any kind.

SUMMARY RISK FACTORS

This presentation speaks to RespireRx's plans, including financing plans, use of the anticipated proceeds from those financings, clinical development plans and things the Company is working on now, but where results will occur in the future. Although these summary risk factors do not purport to be all of the risks applicable to the Company, it is important that you consider the following as well as the risk factors in Item 1.A. of our Annual Report on Form 10-K as of December 31, 2020 as you read this presentation and listen to discussion about it, as well as the Company in general:

- *Drug discovery and development is very risky for many reasons and on many levels*
  - *This is essentially a series of experiments and, as in everything else, some experiments succeed while others fail*
- *Drug discovery and development is expensive and time-consuming and the funds that we are seeking may not be realized in the proposed Regulation A offering in the amounts or on the terms we anticipate*
- *Funds from other offering formats may not be realized in amounts or on terms being sought*
- *Funding from grants applied may not be realized*
- *All of our proposed programs will require funding and the timing, amounts and terms to obtain such funds will be some of the determining factors as to whether we achieve our goals in the timeframes presented*
- *Biopharmaceutical companies like us often seek to partner with other companies in risk sharing and reward sharing arrangements. We have indicated our intent to seek strategic partners but cannot guarantee that we will be able to enter in such arrangements in any particular timeframe, if at all. Until and if we enter into such partnerships, we will need to advance these programs on our own*
- *We have never achieved commercialization of any product and do not currently have any products on the market*
- *The biopharmaceutical industry is highly competitive*

Summary of Proposed Terms of Tier 2 Regulation A Offering

RespireRx Pharmaceuticals Inc

OTC QB:RSPI

Key Elements:

- Estimated submission to the SEC in [2nd Quarter] 2021
- Effective Date TBD. Based on SEC review
- Anticipated to be a continuous offering
- Estimated size ~$5-7 million
- Pricing at discount to then market price
- Securities to be offered: Common Stock
- Anticipated Escrow before each closing
- Anticipated that there will be a Placement Agent

Other Factors:

- Offering would only commence upon qualification by the SEC
- Offering circular to be distributed
- Tier 2

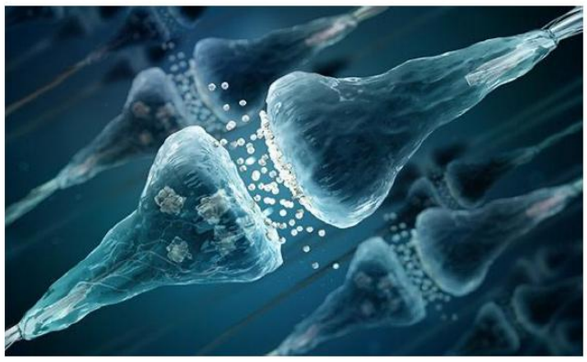
Risk Factors:

- Refer to Item 1A. in our Annual Report on Form 10-K as of December 31, 2020 and our Quarterly Reports on Form 10-Q and Forms 8-K that have been filed or furnished with the SEC as well as any risk factors in the anticipated offering circular.

RespireRx – Underlying Science

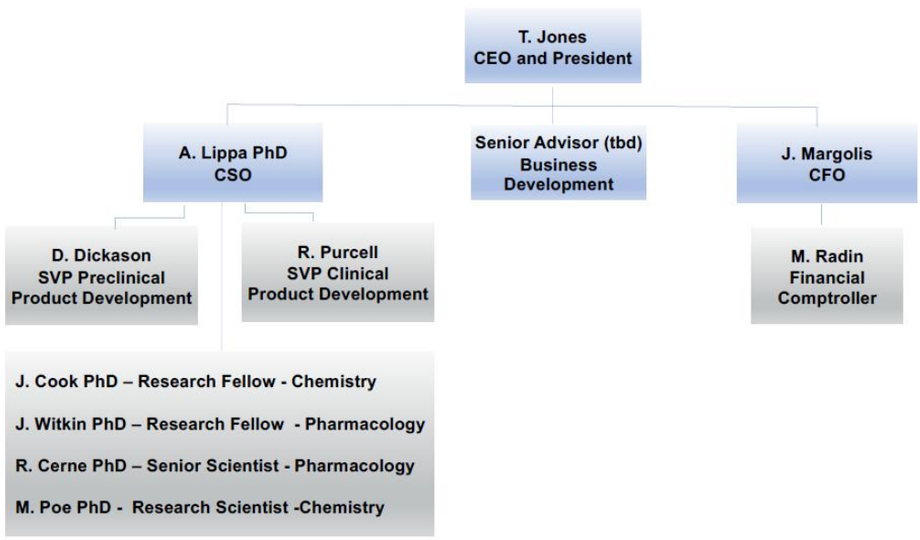
RespireRx Pharmaceuticals Inc

Neurotransmission



- Neurons communicate through a process of neurotransmission in which they release chemical neurotransmitters that bind to specific receptors on adjacent neurons.
- RespireRx is developing breakthrough drugs to modify neurotransmission and create advanced treatments for disorders with high unmet needs.

RespireRx - Organizational Structure



Key Intended Uses of Funding

RespireRx Pharmaceuticals Inc

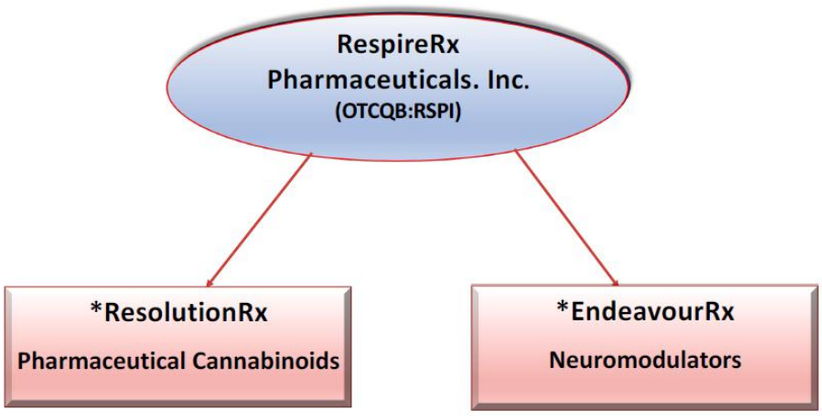
Assuming completion of financing and subject to adequate availability of funds

- ❑ **Complete corporate restructuring plans**
- ❑ **Progress clinical development programs**
- ❑ **Develop a proprietary Dronabinol drug product formulation and prepare for Phase 3**
- ❑ **Expand patent portfolios, strategies for market exclusivity and barriers to generic penetration**
- ❑ **Maintain SEC compliance, general business operations and general corporate purposes**

*** The Company is not obligated to use funds for any particular purpose and retains discretion to change intended uses.**

Corporate Re-Organization Plans

RespireRx Pharmaceuticals Inc



*We are contemplating the reorganization as there are several advantages to separating these platforms formally into newly formed subsidiaries, including but not limited to optimizing their asset values through separate finance channels and making them more attractive for capital raising as well as for strategic deal making. No assurance can be provided that the reorganization will be effectuated.

Product Candidate Portfolio Summary

RespireRx Pharmaceuticals Inc

ResolutionRx

Pharmaceutical Cannabinoids

Dronabinol (Δ9-THC)

- Treatment of Obstructive Sleep Apnea (OSA)
- No approved drugs available for OSA
- Potential multi-billion dollar market – estimated 30 million US patients
- Statistically significant endpoint in Phase 2B; anticipate pursuing Phase 3 pending completion of improved formulation and IND meeting
- Broad enabling patents applied for dosage and novel cannabinoid formulations applicable to other indications as well as OSA

EndeavourRx

Neuromodulators - Novel Brain Targeting Drugs

AMPAkines (AMPA Receptor Positive Allosteric Modulators)

- 3 statistically significant phase 2A trials for CX1739 and CX717
- Phase 2A ready for spinal cord injury (SCI)
- Phase 2B ready for ADHD

GABAkines ($GABA_A$ Receptor Positive Allosteric Modulators)

- Efficacious in multiple animal models of treatment resistant epilepsy and chronic neuropathic pain
- Efficacy in isolated brain slices from epileptic patients
- Lead compound is believed to be druggable and ready for pre-clinical, IND enabling studies

RespireRx – Pipeline Development Status

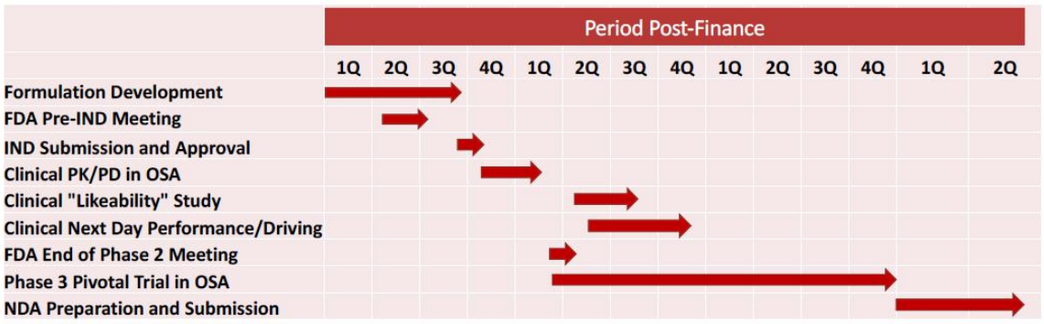
RespireRx Pharmaceuticals Inc

	Preclinical	Phase 1	Phase 2	Phase 3
ResolutionRx - Cannabinoids				
Dronabinol – OSA	→	→	→	
Dronabinol Formulation	→			
EndeavourRx - Neuromodulators				
AMPAkines				
CX717 - ADHD	→	→	→	
CX1739 - Spinal Cord Injury	→	→	→	
CX1942 –follow-up compound	→			
GABAkines				
KRM-II-81 – Epilepsy/Pain	→			

The information above reflects development status only, not current activity. The Company does not have any currently active Phase 1 or Phase 2 trials at this time.

Dronabinol Development Timeline Pending Availability of Adequate Finance

RespireRx Pharmaceuticals Inc



Priority Intended Uses of Initial Funding

RespireRx Pharmaceuticals Inc

ResolutionRx

Dronabinol (∆9-THC)

- Complete proprietary formulation work
- PK studies with new formulation
- Patent filings
- IND meeting with FDA
- Phase 3 design completion

EndeavourRx

AMPAkines

- Initiate SCI phase 2A studies
- Patent filings

GABAkines

- Complete pre-clinical development of lead compound
- Commence Phase 1 studies
- Broaden patent portfolio
- Secure grant funding

* The Company is not obligated to use funds for any particular purpose and retains discretion to change its intended uses.

Global Market Opportunities

RespireRx Pharmaceuticals Inc

ResolutionRx

Dronabinol (Δ9-THC)

Obstructive Sleep Apnea (OSA):

- Multi-billion dollar market with no approved drugs available
- Estimated 30 million US patients and 28 million in UK and Germany combined
- Improved formulation may offer potential for improved efficacy and expanded range of indications
- New proprietary formulation creates opportunities for broadening IP and strengthens barriers to generic market entry

EndeavourRx

AMPAkines

SCI (Spinal Cord Injury):

- Estimated 288,000 patients in US; multi-100 dollar million market

ADHD (Attention Deficit Hyperactivity Disorder):

- Multi billion dollar market, dominated by habit-forming scheduled drugs

GABAkines

Epilepsy:

- Believed to be multi-billion dollar market; patients become resistant to existing therapies that produce multiple side effects, some debilitating

Chronic Pain:

- Multi-billion dollar market, dominated by controlled drugs, including opioids

Intellectual Property

RespireRx Pharmaceuticals Inc

ResolutionRx

Dronabinol (Δ9-THC)

- License to issued method-of-use patent in the US, for the use of dronabinol for treating OSA (expires 2025 in U.S.)
- Pending patents on broad, enabling dosage and modified release formulations with patent life through at least 2031
- New proprietary formulation may create opportunities for broadening patents and strengthen barriers to generic market entry
- Longevity of broader cannabinoid patent claims anticipated through 2042

EndeavourRx

AMPAkines

- Broad family of patents
- Patent longevity: composition and process patents expire in 2028/9 with new patents and patent extensions anticipated through March 2037

GABAkines ($GABA_A$ Receptor Positive Allosteric Modulators)

- Broad family of patents
- Patent longevity: current patents expire in 2032 and 2036 respectively

Government Protection from Generic Competition

RespireRx Pharmaceuticals Inc

Data exclusivity programs create strong barriers to market entry that are automatically granted and enforced by the medicines regulatory system, without exceptions or limitations

- Data exclusivity is a government mandated system whereby generic competition is precluded from using data submitted by the original company.
- More than a dozen nations, including the United States, Canada, China and the European Union have regulatory legislation including data exclusivity
- The market exclusivity created by data exclusivity ranges from 5 – 11 years depending on the country and the properties of the drug

Corporate Summary

RespireRx Pharmaceuticals Inc

- ✓ **Highly desirable assets – advancing clinical programs and patent estate**
- ✓ **Diverse portfolio of novel products across multiple therapeutic categories and indications**
- ✓ **Broad flexibility in identifying unique investment structures**
- ✓ **Opportunities for strategic partners to share in the financial growth from early stage clinical to potential commercialization**
- ✓ **World class management team and Board of Directors**
- ✓ **Regulatory and financial compliance history with government agencies**
- ✓ **Key clinical supply chain relationship established**

An investment in the Company is subject to significant risks. For more information about the risks and uncertainties the Company faces, see "Item 1A. Risk Factors" in our recent annual report on Form 10-K as of December 31, 2020. We advise investors to consult any further disclosures we may make in our annual reports on Form 10-K, our quarterly reports on Form 10-Q and our current reports on Form 8-K that we file with or furnish to the SEC.

RespireRx Pharmaceuticals Inc

OTCQB: RSPI

Contacts:

Tim Jones, President & CEO
tjones@respirerx.com
856-278-8199

Jeff Margolis, CFO
jmargolis@respirerx.com
917-834-7206