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 8, 2018

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 7.01 Regulation FD Disclosure

On January 8, 2018, RespireRx Pharmaceuticals Inc. (the "Company") announced that the Company's President and Chief Executive Officer, James S. Manuso, Ph.D., will be presenting at The Biotech Showcase ^{TM} 2018 at the Hilton San Francisco Hotel in San Francisco, California. Dr. Manuso is scheduled to present at 3:30 p.m. Pacific Standard Time on Tuesday, January 9, 2018.

The slide presentation that the Company will be using at the conference is attached as Exhibit 99.1 and is being furnished and not filed pursuant to Item 7.01 of Form 8-K. The presentation will be available by live webcast that can be accessed by clicking on the investors tab on the Company's web-site (www.respirerx.com), clicking on the investors tab and following the links and instructions or by going to:

https://pgi.webcasts.com/viewer/event.jsp?ei=1176868&tp_key=90197ad027

The press release announcing the Company's participation in the conference is attached as Exhibit 99.2.

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 is presented elsewhere in this document, and is incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Exhibit Description
99.1	Slide Presentation*
99.2	Press Release dated January 8, 2018*

* 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 8, 2018

RESPIRERX PHARMACEUTICALS INC.

By: */s/ Jeff E. Margolis*
Jeff E. Margolis
Vice President, Treasurer and Secretary

RespireRx Pharmaceuticals Inc

OTC QB: RSPI

James S. Manuso, Ph.D., President & CEO

BIOTECH SHOWCASE
San Francisco, January 9, 2018

Medicines for Respiratory Diseases

Forward Looking Statements

RespireRx Pharmaceuticals Inc

The matters discussed in this presentation that are not historical facts are "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 we intend that such forward-looking statements be subject to the safe harbor created thereby. Forward-looking statements include, but are not limited to, statements containing the words "believes," "anticipates," "intends," "estimates," "plans," "expects," "projects" and words of similar import. Readers are cautioned not to place undue reliance on these forward-looking statements, which are based on the information available to management at this time and which speak only as of the date of this presentation. The Company undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements of the Company or its industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. All forward-looking statements should be evaluated with the understanding of their inherent uncertainty and in the context of the Company's filings with the Securities and Exchange Commission, including the risk factors contained therein. While the Company believes the information contained herein is reliable, the Company makes no representations or warranties regarding the accuracy or completeness of this information.

Breath

RespireRx Pharmaceuticals Inc

"Breath is the universal factor of life. We are born the first time we inspire, and we die the last time we expire. Breath is life itself. In Sanskrit the same word means both breath and life."

.....Abbot George Burke

Innovative Medicines for Respiratory Diseases

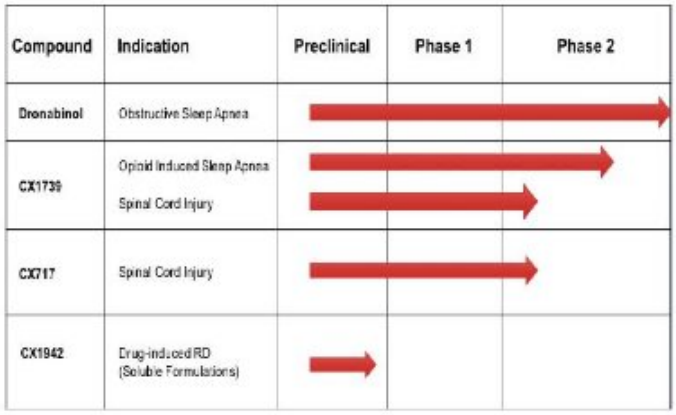
RespireRx Pharmaceuticals Inc

Corporate Overview

Focused on the development of novel medicines to treat very large respiration-related diseases with no pharmaceutical treatments: sleep apnea/hypopnea, respiratory depression and respiratory distress

Value Drivers

- Cannabinoid: Dronabinol (D9-THC)
  - Treatment of Obstructive Sleep Apnea (OSA)
  - Phase 3 ready
- Ampakines: CX1739, CX717 & CX1942
  - Opioid induced respiratory depression (RD) and central sleep apnea
  - 3 successful phase 2A trials for CX1739 and CX717
  - Pre-IND studies for CX1942



Apneas:
Types, Their Measurement, Epidemiology and Economics

RespireRx Pharmaceuticals Inc

Sleep Apnea: A National Health Epidemic

RespireRx Pharmaceuticals Inc

3 Types of Sleep Apnea

- **Obstructive** (OSA) - a peripheral phenomenon that occurs when throat muscles intermittently relax and block airway during sleep
  - May be accompanied by snoring
- **Central** (CSA) – a brain-mediated phenomenon that occurs when breathing control centers in the brain reduce activity
  - Frequently caused by opioid consumption
- **Mixed** - a combination of OSA and CSA

During sleep apnea, air flow is completely blocked.

Over 35 million Americans stop breathing every night from 5-50 times per hour

THIS IS NOT MERELY SNORING!

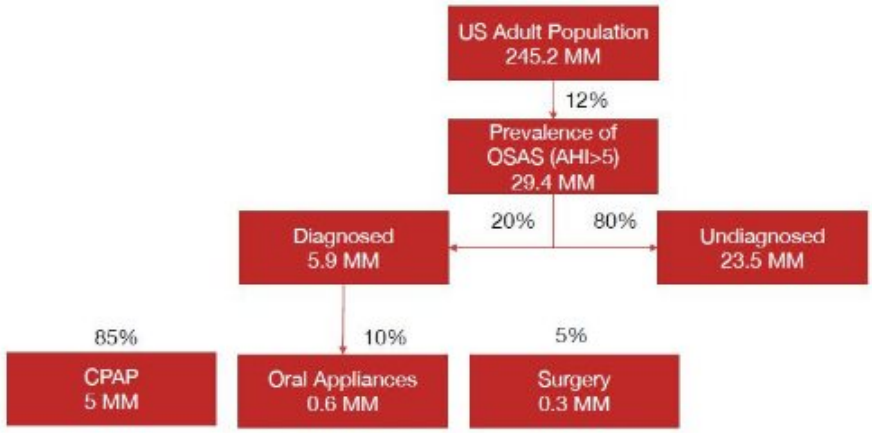
Sleep Apnea and its Measurement

RespireRx Pharmaceuticals Inc

- **Apnea:** Cessation of breathing for ≥ 10 seconds
- **Hypopnea**: Abnormal, severe slowing of breathing for ≥ 10 seconds
- **Apnea - Hypopnea Index (AHI)**: Average number of apnea-hypopnea events per hour during sleep (indicator of the severity of sleep apnea)
- **Severity of Sleep Apnea:**
  - Normal: AHI <5 incidents per hour
  - Mild: 5≤ AHI <15 incidents per hour
  - Moderate: 15≤ AHI <30 incidents per hour
  - Severe: AHI ≥30 incidents per hour

OSA Afflicts Nearly 30 Million People in the US and There Are No Approved Medicines for OSA

RespireRx Pharmaceuticals Inc

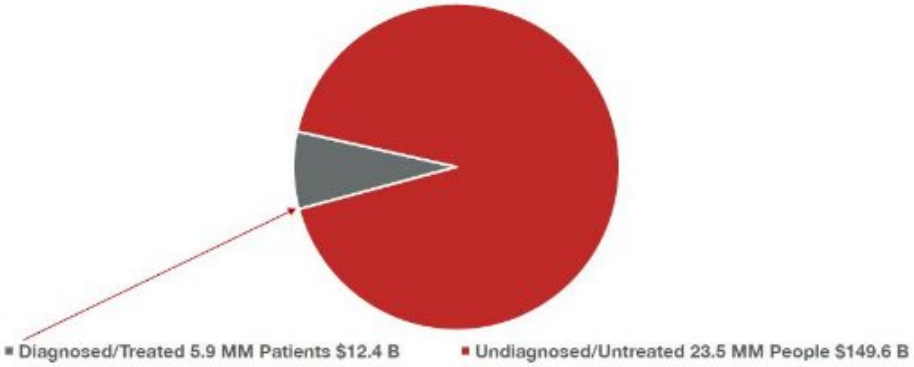


Source: U.S. Census (2014) Am J Epidemiol. 2013 May 1;177(9):1006-14. doi: 10.1093/aje/kws342. Epub 2013 Apr 14.
Frost & Sullivan Report for the American Academy of Sleep Medicine

The Economic Impact of OSAS in the US is $162 Billion

RespireRx Pharmaceuticals Inc

Only 20% of Sleep Apnea Patients are Diagnosed



Source: Am J Epidemiol. 2013 May 1;177(9):1006-14. doi: 10.1093/aje/kws342. Epub 2013 Apr 14.
Frost & Sullivan Report for the American Academy of Sleep Medicine

OSA – Costs of the Problem in the US

RespireRx Pharmaceuticals Inc

Disease State	Estimated US Prevalence	Annual Cost to US Economy	Annual Indicated Drug Therapy Expenditures
OSA[1-5]	29.4 Million	$162.0 Billion	$ 0
Asthma[6,7]	16.4 Million	$18.3 Billion	$13.5 Billion
Hypertension[8-10]	43.2 Million	$73.4 Billion	$48.5 Billion
Diabetes[11,12]	23.5 Million	$174 Billion	$20.6 Billion

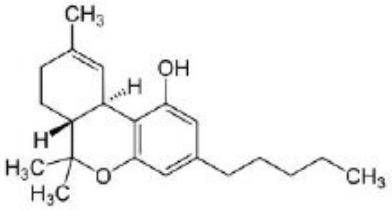
1 Obstructive sleep apnea and sleep. National Sleep Foundation Web site.
2 Manufacturer Recommendations
3 Qualitative Market Research, Physician / Patient interviews, 2010
4 CPAP Supply USA
5 American Sleep Apnea Association, 2010
6 Asthma & Allergy Foundation of America
7 Espicom Business Intelligence's New Drug Futures, 2006
8 Burt, V., et al., Hypertension, 2005
9 Lloyd-Jones, D., et al., Circulation 119(3):e21-181, 2009
10 Acmite Market Intelligence, 2008
11 Arrowhead, Global Diabetes Market, 2008
12 American Diabetes Assoc., 2007

Dronabinol: Breakthrough Treatment for Obstructive Sleep Apnea

RespireRx Pharmaceuticals Inc

Dronabinol: A Breakthrough Treatment for OSA

RespireRx Pharmaceuticals Inc



- Dronabinol is Δ9-THC
- Oral, small molecule
- Cannabinoid receptor agonist
- Reduces apnea by acting on spinal ganglia controlling muscle tone in throat
- Positive Phase 2A and 2B clinical trials in OSA

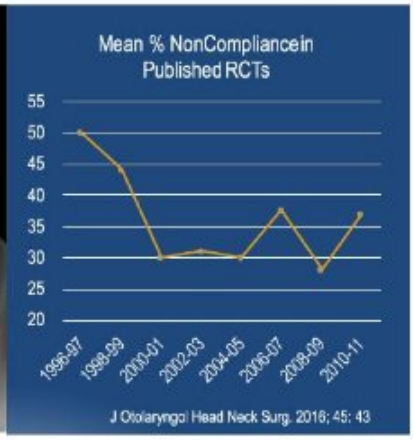
- **Dronabinol Background**
  - FDA approved for the treatment of anorexia in AIDS patients and nausea and vomiting in cancer patients undergoing chemotherapy (Marinol®)
  - Schedule III drug available by prescription, with a low risk of addiction
- **Intellectual Property**
  - Exclusive worldwide license from the University of Illinois
  - Patents issued for the use of dronabinol in the treatment of OSA
  - Pending patents on dosage and modified release formulations
- **NIH Support**
  - >$5MM NIH-funded grant PACE Phase 2B trial in OSA

CPAP Efficacy and Patient Non-Compliance

RespireRx Pharmaceuticals Inc

There are No Approved Medicines for the Treatment of OSA

- 30% of patients prescribed CPAP never initiate treatment when prescribed a machine
- Over 50% of patients stop using CPAP in the first year
- Dronabinol Indication for Patients who Cannot or Will Not Tolerate CPAP



RespireRx Pharmaceuticals Inc

PACE INVESTIGATORS

University of Illinois

David W. Carley, PhD

Bharati Prasad, MD

Hui Xie, PhD

Boris Vern, MD, PhD

Chengbo Yuan

Northwestern University

Phyllis Zee, MD, PhD

Kathryn Reid, PhD

Roneil Malkani, MD

Hryar Attarian, MD

Sabra Abbott, MD, PhD

The PACE Clinical Trial was funded by the National Heart, Lung & Blood Institute of NIH with Grants: UM1HL112856 UL1TR001422 UL1TR002003

PACE Enhancement Cannabimimetic Apnea by Pharmacotherapy of Clinical Trial

Design of The Phase 2B PACE Trial in OSA

RespireRx Pharmaceuticals Inc

- **Study Design**
  - Six week, double-blind, placebo controlled clinical study in 73 patients with OSA
- **Dosage / Administration**
  - Placebo, 2.5 mg, or 10 mg dronabinol at night
- **Patient Randomization**
  - Of 73 randomized patients 56 completed study and were evaluable
  - Placebo, n = 17
    - Placebo, n = 17
    - 2.5 mg dronabinol, n = 19
    - 10 mg dronabinol, n = 20

Fully funded by NIH ~$5 Million

THE PACE Clinical Trial: Pharmacotherapy of Apnea by Cannabimimetic Enhancement – A Phase 2B Study

RespireRx Pharmaceuticals Inc

- Randomized, Placebo-controlled, Parallel Groups, Multi-site Trial in Patients with Moderate to Severe OSA
- Study Drug: Dronabinol (Overencapsulated Marinol®): 2.5 mg or 10 mg QD
- Dose Administration: 60 minutes before bedtime
- Inclusion: Age 21 – 64; AHI 15 – 50; Epworth Sleepiness Scale (ESS) ≥ 7; Body Mass Index (BMI) ≤ 45
- Exclusion: Shift Work or OSA Tx within 1 mo; Medical Co-morbidity; Psych Dx; CNS Active Meds

PACE Enhancement Cannabimimetic Apnea by Pharmacotherapy of Clinical Trial

The Phase 2B PACE Trial in OSA: Final Overall Results

RespireRx Pharmaceuticals Inc

- Statistically significant improvement in Primary Outcome Measures
  - Apnea-Hypopnea Index (AHI) (2.5 and 10 mg)[1]
  - ESS Sleepiness Scale (10 mg)[2]
  - Overall Patient Satisfaction (10 mg)[3]

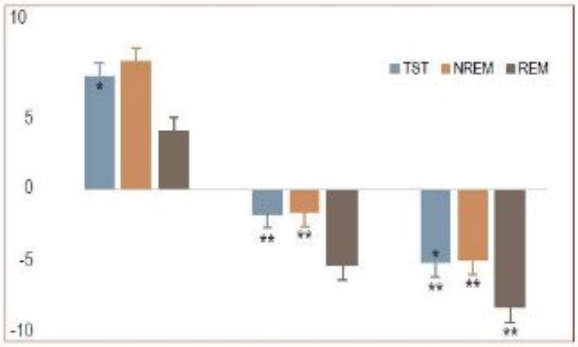
[1] p< .02 and p< .001, respectively, compared to placebo
[2] p<.001, compared to placebo
[3] p< .02, compared to placebo

Results of 6-Week Treatment: Dronabinol Reduces AHI+

RespireRx Pharmaceuticals Inc

Positive Effects of Dronabinol vs. Placebo in TOTAL, REM & NREM Sleep Demonstrate Efficacy

Change in Apnea/Hypopnea Index



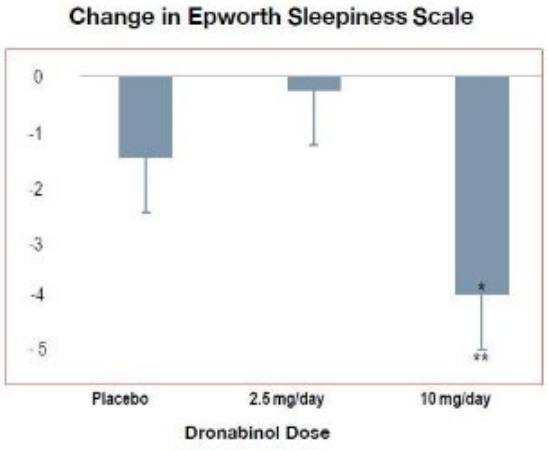
*P=0.02
**P-0.001

PACE Enhancement of Apnea by Cannabimimetic Pharmacotherapy Clinical Trial

+ Primary Endpoint

Dronabinol Reduces Daytime Sleepiness+

RespireRx Pharmaceuticals Inc



*p-0.02
**P-0.001

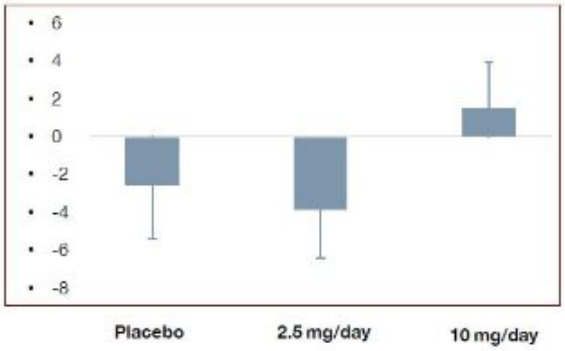
PACE Enhancement of Apnea by Cannabimimetic Pharmacotherapy Clinical Trial

+ *Primary Endpoint*

Dronabinol Improves MWT

RespireRx Pharmaceuticals Inc

Change in Mean Wakefulness Testing (MWT)



Dronabinol Dose

PACE Enhancement of Apnea by Cannabimimetic Pharmacotherapy Clinical Trial

Dronabinol Has an Excellent Safety Profile and Patients are Highly Satisfied With Treatment

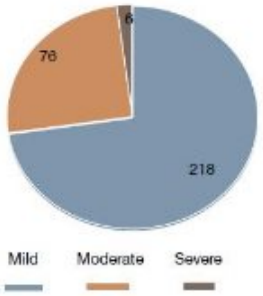
RespireRx Pharmaceuticals Inc

TSQM Response: End of Treatment

Tx Response	Placebo	2.5 mg/day	10 mg/day
Extremely Dissatisfied	3	2	1
Very Dissatisfied	1	2	0
Dissatisfied	0	3	0
Somewhat Satisfied	5	6	4
Satisfied	1	4	4
Very Satisfied	5	1	5
Extremely Satisfied	1	1	6
Total	16*	19	20

p=0.04 for Tx Effect
*TSQM data missing for one placebo subject

- Average Number of AEs = 4.1±4.0
  - Did not differ by Tx group
- Most Frequent Verbatim AEs Reported
  - Sleepiness/Drowsiness (N=25)
  - Headache (N=24)
  - Nausea/Vomiting (N=23)



A Clinical View of the Pace Trial Results

RespireRx Pharmaceuticals Inc

Comments by David Rapoport, MD
Professor of Medicine Mount Sinai School of Medicine*

"OSA may affect….long term cardiovascular and cerebrovascular health,…..memory loss and progression of Alzheimer Disease biomarkers."

"…dronabinol is effective in lowering AHI in patients with moderate obstructive sleep apnea."

"The results of the PACE trial are among the first to show sustained effect of a drug therapy targeting the behavior of the upper airway. Dronabinol is easy to take, appears to have a low side effect profile and now has been shown to be effective. "

dronabinol "may help address the significant medical need for alternative treatments for OSA."

*RespireRx press release, November 30, 2017

Dronabinol – Phase 3 Regulatory Strategy*

RespireRx Pharmaceuticals Inc

- Meet with FDA during Q1/2018
- Finalize the Phase 3 trial plan required for approval
- Position dronabinol as a breakthrough medicine
- Seek fast track designation
- Facilitate and hasten the development path

* Pending Finance

FDA Expedited Approval Opportunities for Dronabinol

RespireRx Pharmaceuticals Inc

Breakthrough Therapy Designation	Preliminary clinical data	Substantial improvement on clinically significant endpoint(s) over available therapies ***No Drug Therapy for OSAS***	More frequent meetings with FDA More frequent FDA communication Rolling review Intensive guidance on an NDA FDA help to expedite development
Accelerated Approval Pathway	Not specified; Sponsor should make justification of alternate endpoint based scientific support	Generally provides a meaningful advantage over available therapies AND demonstrates an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or a clinical endpoint that can be measured earlier than irreversible morbidity or mortality ***Cannot or Will Not Use CPAP***	Approval based on a surrogate or intermediate endpoint (often allows for shorter development time) Note: FDA requires clinical trials to be conducted post-approval to confirm clinical benefit ***AHI & ESS Endpoints***
Priority Review Designation	Data contained in the final NDA submission	Significant improvement in safety or effectiveness of the treatment, prevention, or diagnosis of a serious condition ***OSAS Health & Economic Impact***	Review of application in 6 months

Dronabinol in the Marketplace: Strategies to Capture the Sleep Market

RespireRx Pharmaceuticals Inc

- **Issued Method-of-Use Patents**
  - Expires in 2025
  - Pending patent applications to 2030 & beyond
- **FDA Designations for Market Exclusivity**
  - Fast-Track
  - Breakthrough
  - Hatch-Waxman
- **Develop a "Branded Generic" Formulation of Dronabinol (R-Nabinol) for Phase 3 Pivotal Trial**
- **Develop Proprietary Dosage Formulations for Product Line Extensions**
- **Execute Commercial & Market Strategies**

The Dronabinol Opportunity

RespireRx Pharmaceuticals Inc

Impact on Patient	Commercial Potential
First medicine available for OSA	Changes the nature of OSA treatment
Ease of Use/Better Patient Compliance	Broadly expands prescriber base from sleep specialists to include primary care physicians and cardiologists
Low cost	Recurring lifetime sales versus one time sale or ongoing rental of a device
Safe and effective	Market will expand into the currently undiagnosed/untreated population
Potential for better cardiovascular outcomes	Potential for reducing systemic healthcare costs by reduced cardiac re-hospitalizations

Potential Dronabinol Economics

RespireRx Pharmaceuticals Inc

If FDA approves dronabinol for the treatment of OSA:

- Initial target market: Mild to moderate OSA patients who are diagnosed but do not use CPAP
- 1,770,000 adults (i.e., 30% of 5.9 million diagnosed adults).
- Daily price per pill is $5.00
- Patient compliance – assume patients take the pill only 50% of the time (i.e., 183 days per year)
- Gross Sales = $1.6 billion

Ampakines for Opioid Induced Apneas

RespireRx Pharmaceuticals Inc

The Opioid Epidemic - Prologue

RespireRx Pharmaceuticals Inc

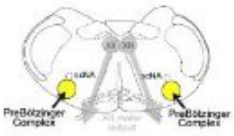
- 11 million Americans take chronic opioids for pain management and 50% of them have central sleep apnea[1].
- The majority of opioid deaths occur in non-substance abusing patients
- Sleep apnea is a primary risk factor for opioid overdose[2].
- Opioid-induced death is caused by respiratory depression.
- Tolerance to opioids develops rapidly, causing dose escalation, whereas tolerance develops less so to the respiratory depressant effects.

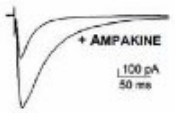
[1] Rose AR, Catcheside PG, McEvoy RD, Paul D, Kapur D, Peak E, Vakulin A, Antic NA. J Clin Sleep Med 2014;10(8):847-852

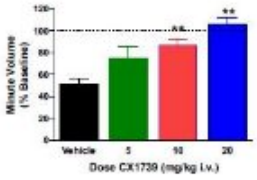
[2] Nora D. Volkow, M.D., and A. Thomas McLellan, Ph.D, National Institute of Drug Abuse, N Engl J Med 2016;374:1253-63.

Translational Approach to Respiratory Disorders

RespireRx Pharmaceuticals Inc



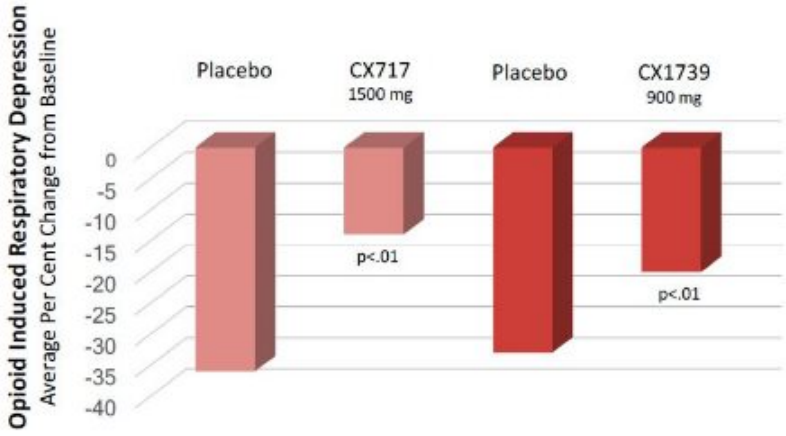




- Brain stem nuclei that regulate breathing contain opiate and AMPA glutamate receptors that inhibit and excite cell activity, respectively
- Ampakines act as positive, allosteric modulators of the AMPA-type glutamate receptor to enhance excitation and prolong and strengthen synaptic transmission
- In animal models, ampakines antagonize opioid-induced respiratory depression

Ampakines Reduce Opioid Induced Respiratory Depression in Phase 2A Clinical Trials

RespireRx Pharmaceuticals Inc

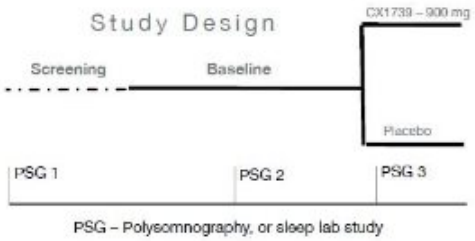


Ampakines reduce opioid induced respiratory depression without altering analgesia

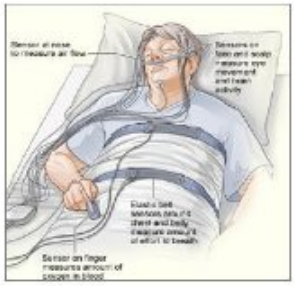
CX1739: Completed Phase 2A in Sleep Apnea – Single Dose

RespireRx Pharmaceuticals Inc

Design	Randomized, double-blind, placebo-controlled study
Population	20 adults with all types of moderate to severe sleep apnea (16 given CX1739; 4 given Placebo)
Dosing	Each subject received either placebo or a single dose of 900mg CX1739 one hour before lights out
Primary Measures	Apnea-Hypopnea measures; Oxygen saturation; Sleep quality, measured by PSG (Apnea: no airflow for >10s; Hypopnea: reduced airflow for >10s)

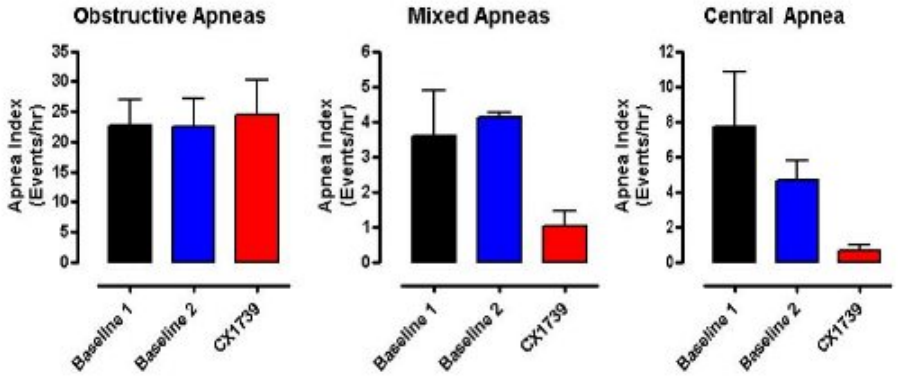


PSG – Polysomnography, or sleep lab study



Patient Selection: CX1739 Was More Effective in Treating Mixed and Central Sleep Apneas

RespireRx Pharmaceuticals Inc



The RespireRx Ampakine™ Pipeline

RespireRx Pharmaceuticals Inc

Compound	Indication	Status	Start Date*	Completion*
CX1739	Opioid-induced Apnea	Phase 2A	2Q2016	✓ 4Q2016
	Opioid Induced Sleep Apnea*	Phase 2B	2Q2018	1Q2019
CX717/CX1739	Spinal Cord Injury*	Phase 2A	2Q2018	4Q2018
CX717/CX1739	Orphan Diseases: Autism, Pompé*	Pre-Clinical to Clinical	Ongoing	Ongoing

* Pending finance

Ampakine Indications and IP

RespireRx Pharmaceuticals Inc

- **Targeted Indications**
  - CSA in Chronic opioid patients
  - Spinal cord injury
  - Combination formulation with an opioid for treatment of chronic pain

- **Intellectual Property Protection (owned and licensed)**
  - Issued Composition-of-Matter Patents (expire 2028)
  - Method-of-use patents (expire 2030)

Capital Structure and Market Metrics

RespireRx Pharmaceuticals Inc

	September 30, 2017 ProForma to December 19, 2017
Common Stock (as of November 13, 2017)	2,633,000
Common Stock Equivalents of Convertible Notes	32,000
Common Stock Equivalents of Options and Warrants Granted (excludes 3,102,000 shares reserved for equity plans, after 2015 Plan size increase. Includes grants on December 9, 2017)	4,700,000
Total	7,365,000

	Market Metrics at December 19, 2017
Closing price as of December 19, 2017	$1.51
Fully diluted market capitalization (rounded)	$11,121,000

Innovative Medicines for Respiratory Diseases

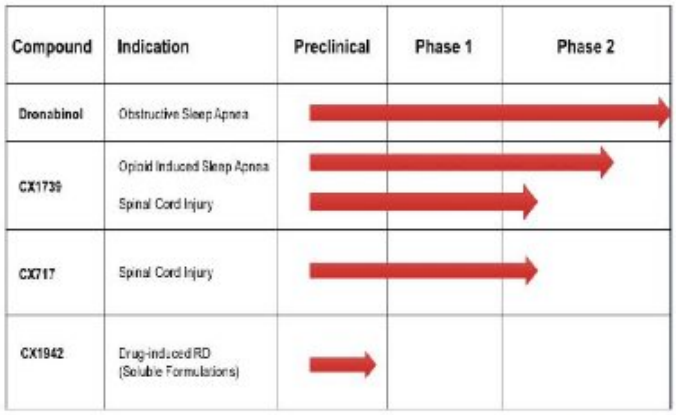
RespireRx Pharmaceuticals Inc

Corporate Overview

Focused on the development of novel medicines to treat very large respiration-related diseases with no pharmaceutical treatments: sleep apnea/hypopnea, respiratory depression and respiratory distress

Value Drivers

- Cannabinoid: Dronabinol (D9-THC)
  - Treatment of Obstructive Sleep Apnea (OSA)
  - Phase 3 ready
- Ampakines: CX1739, CX717 & CX1942
  - Opioid induced respiratory depression (RD) and central sleep apnea
  - 3 successful phase 2A trials for CX1739 and CX717
  - Pre-IND studies for CX1942



Management Team and Directors

RespireRx Pharmaceuticals Inc

James Manuso, PhD, *President, CEO & Vice Chairman*
- *Biotechnology/pharmaceuticals industry CEO*
- *Formerly served as Chairman and CEO of Astex Pharmaceuticals*
- *Author of over 30 chapters, articles and books on topics including healthcare cost containment and biotechnology company management*

Arnold Lippa, *CSO & Executive Chairman*
- *Founder of DOV Pharmaceuticals and Praxis Pharmaceuticals*
- *Serial life science company entrepreneur*
- *Indirect managing member of Aurora Capital LLC*

Jeff Margolis, *CFO, SVP, Treasurer, Secretary, Director*
- *Founder, President and indirect managing member of Aurora Capital LLC (FINRA, SIPC), life science focused investment bank, 22 years*

Richard Purcell, *Senior VP, R& D*
- *Biopharmaceutical development specialist with consulting experience for financial, venture capital and start-up companies*
- *Formerly, President of CRO*

Katie MacFarlane, *Director*
- *Senior VP, Napo Pharmaceuticals*
- *Owner and Managing Director of SmartPharma, a pharmaceuticals consulting firm*
- *More than 25 years of experience and expertise in marketing, new product planning and commercialization*

James Sapirstein, *Director*
- *CEO of ContraVir Pharmaceuticals*
- *Founder and former CEO of Tobira Therapeutics*

RespireRx Pharmaceuticals Inc

OTC QB: RSPI

James S. Manuso, Ph.D., President & CEO

BIOTECH SHOWCASE
San Francisco, January 9, 2018

Medicines for Respiratory Diseases

RespireRx Pharmaceuticals Inc. to Present at 10 th Annual Biotech Showcase™ 2018

CEO to Review completed Phase IIB dronabinol trial for the treatment of Obstructive Sleep Apnea (OSA) and Provide Pipeline update

Glen Rock, N.J., Jan. 8, 2018/Globe Newswire – RespireRx Pharmaceuticals Inc. (OTC QB: RSPI) ("RespireRx" or the "Company"), a leader in the development of medicines for the treatment of respiratory disorders for which there are no approved pharmaceuticals, particularly sleep apneas and drug-induced respiratory depression, announces that the Company's President, Chief Executive Officer and Vice Chairman of the Board of Directors, James S. Manuso, Ph.D., will present at The Biotech Showcase™ on Tuesday, January 9, 2018 at 3:30 PM Pacific Standard Time (www.biotechshowcase.com or www.ebdgroup.com/bts/index.php). The Conference is co-sponsored by the EBD Group and Demy-Colton Life Sciences Advisors. Presentations will be held at the Hilton San Francisco Hotel in San Francisco, California from January 9 – 11, 2017.

Dr. Manuso will discuss the successfully completed Phase IIB PACE trial in which dronabinol was tested for the treatment of OSA, along with the successful results of Phase IIA trials testing CX-1739 for drug-induced respiratory depression and central sleep apnea. He will also provide background information and descriptions of other product pipeline candidates.

Dr. Manuso's presentation will be available by live webcast streaming online. To access the live audio webcast, go to:

https://pgi.webcasts.com/viewer/event.jsp?ei=1176868&tp_key=90197ad027

This link will enable access to the archived webcast. This press release with the live link will also be available on the company's website at www.respirerx.com, by going to the Investors tab. A copy of the slide presentation to be presented at the conference will be submitted to the Securities and Exchange Commission in a Current Report on Form 8-K prior to the presentation and will also be available in the investors section of RespireRx's website.

About RespireRx Pharmaceuticals Inc.

RespireRx Pharmaceuticals Inc. is a leader in the development of medicines for respiratory disorders, with a focus on sleep apneas and drug-induced respiratory depression. During 2018, the Company plans to meet with FDA to discuss its Phase III clinical trial program to test the safety and efficacy of dronabinol for the treatment of OSA. The Company owns patents and patent applications, and holds exclusive licenses, for certain families of chemical compounds that claim the chemical structures and their use in the treatment of these and other disorders.

RespireRx's pharmaceutical candidates in development are derived from two platforms, as described below.

The first platform is the class of compounds known as cannabinoids, in particular, dronabinol. Under a license agreement with the University of Illinois, the Company has rights to patents claiming the use of cannabinoids for the treatment of sleep-related breathing disorders. In a double-blind, placebo-controlled, dose-ascending Phase 2A clinical study conducted by the Company, dronabinol produced a statistically significant reduction in the Apnea-Hypopnea Index (AHI), the primary therapeutic end-point, and was observed to be safe and well-tolerated in a group of patients with OSA. Investigators at the University of Illinois and Northwestern University have completed their investigation of dronabinol in a potentially pivotal, six week, double-blind, placebo-controlled Phase 2B clinical trial in 56 patients with OSA. This study was fully funded by the National Heart, Lung and Blood Institute of the National Institutes of Health. The Company did not manage or fund this clinical trial.

The second platform of medicines being developed by RespireRx is a class of proprietary compounds known as ampakines that act to enhance the actions of the excitatory neurotransmitter glutamate at AMPA glutamate receptor sites in the brain. Several ampakines in both oral and injectable form are being developed by the Company for the treatment of a variety of breathing disorders. In a Phase IIA clinical trial testing CX-1739 for drug-induced respiratory depression, this medicine was shown to control respiratory depression produced by remifentanil, a potent opioid, without altering its analgesic effects. In another Phase IIA clinical trial, CX-1739 demonstrated preliminary efficacy in controlling central sleep apnea. Various ampakines have demonstrated improved breathing function in animal models of orphan disorders such as Pompé Disease, spinal cord damage and perinatal respiratory distress. The Company's compounds belong to a new class of ampakines that do not display undesirable side effects previously reported by earlier generations of ampakines.

Additional information about the Company 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 U.S. Securities and Exchange Commission on EDGAR at www.sec.gov.

Clinical Trial Plans for 2018 - Phase III Clinical Trial Plans for Development of Dronabinol

As reported previously, RespireRx announced positive results for the PACE (Pharmacotherapy of Apnea by Cannabimimetic Enhancement) trial conducted by Dr. David Carley, Dr. Phyllis Zee and their colleagues at the University of Illinois at Chicago and Northwestern University, respectively. The PACE trial, a Phase 2B study of dronabinol for the treatment of OSA, clearly demonstrated that dronabinol significantly improved the primary outcome measures of AHI, daytime sleepiness as measured by the Epworth Sleepiness Scale ("ESS") and overall patient satisfaction as measured by the Treatment Satisfaction Questionnaire for Medications ("TSQM"). Based on these results, RespireRx will engage with FDA to agree upon the next steps in connection with the initiation of a pivotal Phase III clinical trial program testing the safety and efficacy of dronabinol in the treatment of obstructive sleep apnea.

Clinical Trial Plans for 2018 - Phase II Trial of CX1739 in Central Sleep Apnea

Pending additional financing and/or strategic relationships, the Company plans to conduct a Phase II, multiple dose clinical trial investigating the ability of CX1739 to improve breathing in patients with central sleep apnea. Of particular interest will be to look at patients undergoing chronic opioid treatment. In these patients, central sleep apnea is a major risk factor for opioid over-dose.

Other Potential Clinical Indications for Ampakines

While developing potential applications for respiratory disorders, RespireRx has retained and expanded its ampakine intellectual property and data with respect to neurological and psychiatric disorders and is considering developing certain indications, pending additional financing and/or strategic relationships. As an example, based on positive results from a Phase II clinical trial of CX717 in patients with Attention Deficit Hyperactivity Syndrome (ADHD), RespireRx has filed patent applications claiming the use of ampakines for the treatment of ADHD and is seeking support for further clinical development in this area. In addition, animal studies conducted in collaboration with Dr. David Fuller and his colleagues at the University of Florida have demonstrated the ability of our lead ampakines to significantly improve breathing in animals with spinal cord injury. The Company believes that these results reflect a more general process whereby the ampakines might improve the motor nerve activity of a number of systems. While additional animal studies are planned at the University of Florida, the Company is also planning, pending additional financing, to conduct a Phase 2 clinical trial investigating the ability of our lead ampakines to improve breathing and motor function in spinal cord injury patients.

Comments by the Company's President and Chief Executive Officer

Dr. James S. Manuso, commented, "We look forward to advancing the many initiatives RespireRx is undertaking throughout the course of 2018. Now that the Company is Phase III-ready with respect to the final clinical and regulatory development of dronabinol for the treatment of OSA, commercialization and potential partnering plans may be initiated. With dronabinol's Phase III trial on the horizon, along with two Phase II ampakines in development, there are numerous strategic and operational milestones on the calendar. In 2018 we will continue to focus on the clinical and regulatory development of the Company's two proprietary platforms for addressing unmet needs in the sleep apnea and opioid-induced respiratory depression markets. In addition, we will continue to support the scientific research and pre-clinical development upon which our company is based. I look forward to reporting to you our progress in the months ahead"

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 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 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 are all forward-looking statements.

In some cases, forward-looking statements may be identified by words including "anticipates," "believes," "intends," "estimates," "expects," "plans," and similar expressions 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 proposed products, and (iv) the need for, and availability of, additional financing.

The forward-looking statements included herein are based on current expectations that involve a number of risks and uncertainties. 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 and competitive conditions, 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 the Company believes that the assumptions underlying the forward-looking statements are reasonable, actual results may differ materially from those set forth in the forward-looking statements. In light of the significant uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by the Company or any other person that the Company's objectives or plans will be achieved.

Factors that could cause or contribute to such differences include, but are not limited to, regulatory policies or changes thereto, available cash, research and development results, competition from other similar businesses, and market and general economic factors. This discussion should be read in conjunction with the condensed consolidated financial statements (unaudited) and notes thereto included in Item 1 of the Company's current Quarterly Report on Form 10-Q as of and for the periods ending September 30, 2017 and the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, including the section entitled "Item 1A. Risk Factors." The Company does not intend to update or revise any forward-looking statements to reflect new information, future events or otherwise.

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