RespireRx Pharmaceuticals Inc. to Participate in Upcoming January Virtual Investor Conferences

Glen Rock, N.J., January 8, 2021 /Globe Newswire – RespireRx Pharmaceuticals Inc. (OTC Pink Market: RSPID) ("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's senior management will participate in two virtual investor conferences in January:

- **Biotech Showcase 2021 Digital (January 11-15, 2021):** RespireRx's corporate video presentation is available to all registered conference delegates via the Biotech Showcase digital platform.

- **BIO Partnering at JPM 2021 Digital (January 11-15, 2021):** RespireRX's company profile is available to all registered conference delegates via the JPM BIO One-on-One Partnering platform.

Our corporate presentation is available on our website at www.respirerx.com and at https://www.youtube.com/watch?v=v_uWeSh_IRA&feature=youtu.be .

About RespireRx Pharmaceuticals Inc.

The mission of the Company is to develop innovative and revolutionary treatments to combat disorders caused by disruption of neuronal signaling. We are developing treatment options that address conditions that affect millions of people, but for which there are limited or poor treatment options, including obstructive sleep apnea ("OSA"), attention deficit hyperactivity disorder ("ADHD") epilepsy, chronic pain, including inflammatory and neuropathic pain, recovery from spinal cord injury ("SCI"), as well as other areas of interest based on results of animal studies to date.

RespireRx is developing a pipeline of new drug products based on our broad patent portfolios across two distinct drug platforms, which the Company intends to formalize into distinct subsidiaries:

(i) ResolutionRx, our pharmaceutical cannabinoids platform, is developing dronabinol, Δ-9-tetrahydocannabinol (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 an estimated 30 million people in the United States and for which there are no approved drug treatments.

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 outcome of an intended meeting with the FDA, RespireRx believes that it will be able to commence a pharmacokinetic study for a new formulation presently under development, to be 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, 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.

(ii) EndeavourRx, our neuromodulators platform, is developing ampakines and GABAkines, proprietary compounds 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.

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. From our ampakine platform, 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 adults with ADHD. Due to its rapid onset of action and non-stimulant properties, we believe ampakines may represent a novel, non-stimulant treatment for ADHD with a more rapid onset of action than alternative non-stimulant treatment options, such as Straterra® (atomoxetine).

Under a License Agreement with the University of Wisconsin-Milwaukee Research Foundation, Inc., an affiliate of the University of Wisconsin-Milwaukee, RespireRx has licensed rights to certain selectively acting GABAkines that have shown impressive activity in a broad range of animal models of refractory/drug resistant epilepsy and other convulsant disorders, as well as in brain tissue samples obtained from epileptic patients. Epilepsy is a chronic and highly prevalent neurological disorder that affects millions of people world-wide. While many anticonvulsant drugs have been approved to decrease seizure probability, seizures are not well controlled and, in as many as 60-70% of patients, existing drugs are not efficacious at some point in the disease progression. We believe that the medical and patient community are in clear agreement that there is desperate need for improved antiepileptic drugs. In addition, these GABAkines have shown positive activity in animal models of migraine, inflammatory and neuropathic pain, as well as other areas of interest. Because of their GABA receptor subunit specificity, the compounds have a greatly reduced liability to produce sedation, motor incoordination, memory impairments and tolerance, side effects commonly associated with non-specific GABA PAMs, such as Valium® and Xanax®.

Management believes that there are advantages to separating these platforms, in the near future, 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. The Company is also engaged in a number of business development efforts (licensing/sub-licensing, joint venture and other commercial structures) with a view to securing strategic partnerships that represent strategic and operational infrastructure additions, as well as cash and in-kind funding opportunities. These efforts have focused on, but have not been limited to, transacting with brand and generic pharmaceutical and biopharmaceutical companies as well as companies with potentially useful formulation or manufacturing capabilities, significant subject matter expertise and financial resources. No assurance can be given that any transaction will come to fruition and that if it does, that the terms will be favorable to the Company.

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 Securities and Exchange Commission at www.sec.gov.

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, need for, and availability of, additional financing, 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. 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 announcement.

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 our Form 10-K for the year ended December 31, 2019, our Form S-1 filed on October 14, 2020, as amended and supplemented, and in our Form 10-Q for the quarter ended September 30, 2020. 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.

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 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 are encouraged not to place undue reliance on forward-looking statements. 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.

This discussion should be read in conjunction with our consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2019 and in our condensed consolidated financial statements (unaudited) and notes thereto included in our Form 10-Q for the quarter ended September 30, 2020.

Company Contact:

Jeff Margolis
Senior Vice President, Chief Financial Officer, Treasurer and Secretary
Telephone: (917) 834-7206
E-mail: jmargolis@respirerx.com