



NeuroRx reports Initial Phase 2b/3 Study Results Demonstrating Significant Benefit of ZYESAMI™ (aviptadil) in Reducing Hospital Stay among Patients with Respiratory Failure due to Critical COVID-19

If Authorized for Use, ZYESAMI™ Would be First Treatment Specifically for Critically Ill Patients with Respiratory Failure

RADNOR, Pa., Feb. 9, 2021 /[PRNewswire](#)/ -- NeuroRx, Inc. today reported preliminary results from their Phase 2b/3 trial of ZYESAMI™ (aviptadil, previously RLF-100) performed in collaboration with Relief Therapeutics Holdings, AG (SIX:RLF; OTCQB:RLTF) in patients with respiratory failure due to Critical COVID-19. The study showed that patients who were treated with the maximal standard of care plus ZYESAMI were discharged sooner from the hospital compared to those treated with placebo plus maximal standard of care (SOC). If authorized for use, ZYESAMI would be the first drug indicated specifically for COVID-19 patients who are critically ill with respiratory failure.

Jonathan Javitt, M.D., M.P.H., CEO of NeuroRx, said: "We are greatly encouraged by these preliminary findings and believe they are indicative of a biologic effect of aviptadil in hastening recovery from Critical COVID-19. We expect to discuss with the Food and Drug Administration and other regulatory authorities the submission of an Emergency Use Authorization (EUA) so that ZYESAMI can be available for treating this population that is at immediate risk of death and for which there is no approved therapy."

With the improvement in survival since the start of the pandemic, differences in patient survival were not seen at day 28, and patients are now being followed through day 60. The study has not identified an overall difference in the stated primary endpoint of recovery from respiratory failure from summary data. However, investigators are in the process of confirming the timing of each case of recovery from medical records, following which the study's investigators' committee will review each case prior to patient-level unblinding of this endpoint. Those data are expected within a few weeks and will provide further insight into the benefits of ZYESAMI. A blinded substudy of radiographic improvement is similarly underway.

Among the secondary efficacy endpoints evaluated in patients treated with High Flow Nasal Cannula (HFNC) therapy and with Mechanical Ventilation, ZYESAMI showed an advantage in 15 of 16 comparisons and demonstrated a 40% or better advantage (hazard ratio <0.7). The likelihood of this magnitude of advantage being seen by chance alone is about 1 in 2,000 ($P=.0005$). This difference includes at least a five-day median reduction in hospital stay. ($P=.043$). The largest difference observed was among those treated with HFNC who experienced a median of 11 fewer days in hospital (15 vs. 26).

Dr. Javitt said: "The data provide preliminary support for ZYESAMI as a drug that may help get critically-ill patients home to their families sooner. The hospitalization data further suggest that patients treated at an earlier stage of illness (i.e., those who can be managed with HFNC) may have a better response to treatment. We have launched a phase 2/3 trial to explore ZYESAMI's inhaled use in patients who are not yet in respiratory failure.

"Further study of ZYESAMI's role in critical COVID-19 will be conducted under the BARDA and DOD Medical

Countermeasures-funded I-SPY trial.

Dr. Javitt added: "To our knowledge this is the first demonstration of clinically and statistically-significant benefit by any therapeutic agent in patients with COVID-19 respiratory failure in a randomized, double blind, prospective trial. Other COVID-19 therapeutics have demonstrated clinical advantage in patients with non-critical COVID-19 (ordinal scale 4 and 5) but have not demonstrated benefit in those with Critical COVID-19 (ordinal scale 6 and 7). Steroids have demonstrated benefit in open label studies. However, no randomized controlled trial to date has shown efficacy when patients are in respiratory failure and require High Flow Nasal Cannula, Non-invasive ventilation, or Mechanical Ventilation to maintain blood oxygenation. ZYESAMI, if authorized, would be the first drug for such critically ill patients. Of note, the patients who received either drug or placebo in this trial also received all approved and standard of care treatments including Remdesivir, anti-cytokine drugs, steroids, and anticoagulants."

Dr. Javitt added: "We are forever indebted to the study coordinators, nurses, respiratory therapists, and doctors who carried out this study in the midst of a public health calamity that so far has claimed the lives of nearly half a million Americans and millions worldwide. Our study teams kept the effort going despite contracting COVID themselves, losing family members, and dealing with an unimaginable daily reality."

The data were generated in multicenter clinical trial whose subjects were COVID-19 patients with respiratory failure being treated with the maximal standard of care that included anti-coagulants, steroids, convalescent plasma and antiviral drugs. The primary endpoint was the resolution of respiratory failure within 28 days after treatment started. The secondary endpoints were patient survival, time to ICU discharge, time to hospital discharge, time to return to NIAID score of 6-8, and safety.

A total of 203 patients were screened and consented to participate in the study; 136 were given ZYESAMI, while 67 received the standard of care. All patients were evaluated through Day 28 with planned long-term follow-up through day 60. A total of 138 patients (91 ZYESAMI, 47 SOC) survived through Day 28. Ninety-six patients (65 ZYESAMI, 31 SOC) were discharged from the hospital by Day 28. Data analysis per protocol is ongoing.

The study, conducted in 10 medical centers, also showed the safety of the drug when administered by intravenous infusion in the ICU. No unexpected side effects identified. The most common side effects of ZYESAMI in the clinical trial were mild to moderate diarrhea (seen in 30% of ZYESAMI-treated vs. 1.5% of placebo-treated patients) and systemic hypotension (low blood pressure) seen in 31 ZYESAMI-treated patients vs. 25 placebo patients. There were two deaths in the study related to hypotension, both of which occurred more than a week after treatment. One patient was in the ZYESAMI group, and the other was in the placebo group. All potentially serious adverse effects were investigated by a board-certified critical care physician together with site investigators, and none was deemed drug-related.

Conference Call Information

NeuroRx will host a conference call and webcast on February 9, 2021 at 9:00 a.m. EST to discuss study results. To participate in the conference call, dial +1 866-373-3402 (Toll-Free) or +1 201-689-7825 (International), shortly before 9:00 a.m. EST. The webcast can also be accessed directly at <https://78449.themediiframe.com/dataconf/productusers/nrx/mediiframe/43588/index1.html>.

About VIP in COVID-19

Vasoactive Intestinal Polypeptide (VIP) was first discovered by the late Dr. Sami Said in 1970. Although first identified in the intestinal tract, VIP is now known to be produced throughout the body and to be primarily concentrated in the lungs. VIP has been shown in more than 100 peer-reviewed studies to have potent anti-inflammatory/anti-cytokine activity in animal models of respiratory distress, acute lung injury, and inflammation. Most importantly, 70% of the VIP in the body is bound to a rare cell in the lung, the alveolar type II cell (ATII), that is critical to transmission of oxygen to the body.

COVID-19-related respiratory failure is caused by selective infection of the ATII cell by the SARS-CoV-2 virus. They are vulnerable because of their (ACE2) surface receptors, which serve as the route of entry for the virus. These specialized cells manufacture surfactant that coats the lung and is essential for oxygen exchange. Loss of surfactant causes collapse of the air sacs (alveolae) in the lung and results in respiratory failure.

VIP is shown to block Coronavirus replication in the ATII cell, block cytokine synthesis, block viral-induced cell death (cytopathy), and upregulate surfactant production. To our knowledge, other than ZYESAMI™, no currently proposed treatments for COVID-19 specifically target these vulnerable Type II cells.

About NeuroRx, Inc.

NeuroRx draws upon more than 100 years of collective drug development experience from senior executives of AstraZeneca, Eli Lilly, Novartis, Pfizer, and PPD. In addition to its work on Aviptadil, NeuroRx has been awarded Breakthrough Therapy Designation and a Special Protocol Agreement to develop NRX-101 in suicidal bipolar depression and is currently in Phase 3 trials. Its executive team is led by Prof. Jonathan C. Javitt, MD, MPH, who has served as a health advisor to four Presidential administrations and worked on paradigm-changing drug development projects for Merck, Allergan, Pharmacia, Pfizer, Novartis, and Mannkind, together with Robert Besthof, MIM, who served as the Global Vice President (Commercial) for Pfizer's Neuroscience and Pain Division. The Company recently announced a plan to merge with Big Rock Partners Acquisition Corp (NASDAQ:[BRPA](#)) ("Big Rock"), following which it is expected to trade on the NASDAQ as NRPX.

Cautionary Note Regarding Forward Looking Statements

Statements contained in this press release that are not historical facts may be 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. Forward-looking statements generally relate to future events or the Company's future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these words or other similar terms or expressions that concern the Company's expectations, strategy, plans or intentions. Such forward-looking statements may relate to, among other things, the outcome of any discussions or applications for the future use of ZYESAMI. Such forward-looking statements do not constitute guarantees of future performance and are subject to a variety of risks and uncertainties. The Company does not undertake any obligation to update forward-looking statements as a result of new information, future events or developments or otherwise.

Additional Information and Where to Find It

This document relates to a proposed Business Combination and related transactions (the "Transactions") between the Company and Big Rock Partners Acquisition Corp. ("BRPA"). This document does not constitute an offer to sell or exchange, or the solicitation of an offer to buy or exchange, any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, sale or exchange would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. BRPA has filed a registration statement on Form S-4 ("Registration Statement"), which includes a preliminary proxy statement for the solicitation of the approval of BRPA's stockholders, a preliminary prospectus for the offer and sale of BRPA's securities in the transaction and a preliminary consent solicitation statement of the Company, and other relevant documents with the SEC. The proxy statement/prospectus/consent solicitation statement will be mailed to stockholders of the Company and BRPA as of a record date to be established for voting on the proposed business combination. INVESTORS AND SECURITY HOLDERS OF THE COMPANY AND BRPA ARE URGED TO READ THE REGISTRATION STATEMENT, PROXY STATEMENT/PROSPECTUS/CONSENT SOLICITATION STATEMENT AND OTHER RELEVANT DOCUMENTS THAT WILL BE FILED WITH THE SEC CAREFULLY AND IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTIONS. Investors and security holders will be able to obtain free copies of the registration statement, proxy statement, prospectus and other documents containing

important information about the Company and BRPA once such documents are filed with the SEC, through the website maintained by the SEC at <http://www.sec.gov>. In addition, copies of the documents filed with the SEC by BRPA can be obtained free of charge on BRPA's website at www.bigrockpartners.com or by directing a written request to BRPA at 2645 N. Federal Highway, Suite 230 Delray Beach, FL 33483.

Participants in the Solicitation

The Company, BRPA and their respective directors and executive officers, under SEC rules, may be deemed to be participants in the solicitation of proxies of BRPA's stockholders in connection with the proposed Transactions. Investors and securityholders may obtain more detailed information regarding the names and interests in the proposed Transactions of the Company's and BRPA's respective directors and officers in BRPA's filings with the SEC, including the proxy statement/consent solicitation statement/prospectus statement. You may obtain a free copy of these documents as described in the preceding paragraph.

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Released February 9, 2021

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