



OrPro Therapeutics Advances a New Inhalation Treatment Approach for COVID-19

Company Selected as a 2020 San Diego Cool Company

Industry Veteran Ken Wilke Joins Team to Lead Strategy and Operations for ORP100S Development

SAN DIEGO, CA – May 28, 2020 – OrPro Therapeutics announced today that it is expanding its patented technology platform for treatment of acute and chronic airway diseases, including cystic fibrosis (CF), to address the immediate threat posed by COVID-19. In recognition of the broad potential of this approach to address key treatment gaps in airway inflammation and clearance, OrPro has been selected as a 2020 Cool Company (<https://connect.org/cool-companies/>) by Connect with San Diego Venture Group (SDVG). This year, 296 startups applied for the opportunity to showcase their technology to national venture capital firms and local investors. OrPro is among the elite group of 30 life science companies to be selected.

“We received a record number of applications from extraordinary companies for the ‘Cool Companies’ program this year,” stated Mike Krenn, president and CEO of Connect w/ SDVG. “OrPro and the other finalists truly stand out among the San Diego innovators addressing today’s unmet needs.”

OrPro Therapeutics is developing ORP100S, a new type of drug to treat inflammation and obstruction in the lung associated with both chronic airway disorders and progression to severe COVID-19 disease caused by SARS-CoV-2 infection. Due to the urgent need to respond to the pandemic, especially for broad-spectrum approaches that overcome many of the limitations of vaccines, antivirals and antibody-based drugs, ORP100S is poised for accelerated COVID-19 clinical development. ORP100S is delivered by inhalation and is planned for home use with the objective of reducing COVID-19 severity and the need for hospitalization.

To assist in advancing its lead product, ORP100S, pharmaceutical industry veteran Ken Wilke has joined the OrPro Therapeutics management team in a Strategy and Operations leadership role. Ken has over 30 years of experience, including 25 years at Merck, and a proven track record directing strategic initiatives, research and development projects, and operations. He holds a Bachelor of Science in Engineering from Stanford University and a Master of Business Administration from Lehigh University.

“Being chosen as a 2020 Cool Company is a great accomplishment that reflects the hard work of our team to develop a potentially game-changing technology for treatment of respiratory diseases ranging from cystic fibrosis to COVID-19,” said Peter B. Heifetz, Ph.D, OrPro President and CEO. “Ken’s expertise in research and development, operations, and pharma project management will be critical as we prepare to move ORP100S into the clinic.”

OrPro Therapeutics has also been selected to present at the Redefining Early Stage Investments Digital Conference on June 8 – 10. OrPro was chosen for both the RESI Innovation Challenge virtual poster and Featured Company Pitch Session presentation events (<https://resiconference.com/resi-calendar/#pitch>).

About ORP100S

The ORP100S therapeutic strategy is based on supplementing the activity of the human protein thioredoxin-1 (TXN1), which is normally secreted onto the airway surface where it acts selectively to modify certain types of protein disulfide



bonds formed between cysteine amino acids. The thioredoxin mechanism targets airway mucus to keep it at a normal viscosity (thickness and stickiness) and able to maintain the essential process of mucus clearance that sweeps the lungs clean of inhaled material and excess fluid. Thioredoxin also targets regulatory (allosteric) disulfide bonds on immune system proteins as part of a natural homeostatic mechanism to prevent excessive release of cytokines in response to inflammatory stimulus. Together, impaired airway clearance and abnormally elevated cytokine release comprise key pulmonary manifestations of moderate to severe COVID-19 that can lead to systemic disease and poor outcomes.

Unfortunately, natural thioredoxin is not suitable for delivery as a drug itself because it has a short half-life in the body, low stability in the active form, and needs to be kept on the lung surface to avoid side effects. ORP100S is an improved thioredoxin based on patented technology and optimized for safe, targeted delivery to the site of action in the airway by direct inhalation.

About OrPro Therapeutics

OrPro Therapeutics, Inc is a privately held preclinical-stage company pioneering a novel non-systemic biologic drug platform for treating severe respiratory and mucosal diseases, including cystic fibrosis, COVID-19 and beyond. The company's differentiated approach targets both lung clearance and inflammation as well as obstructive/inflammatory disorders associated with non-respiratory mucosal surfaces in the body. Launched in 2013 with technology in-licensed from National Jewish Health, the company has secured Series A financing and significant non-dilutive grant funding from the National Institutes of Health and the Cystic Fibrosis Foundation with over \$5M raised to date. OrPro Therapeutics is a San Diego JLABS resident company (Johnson & Johnson Innovation). For more information visit www.orprotherapeutics.com.

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