



## **Aer Therapeutics Closes \$36 Million Series A to Advance Development of AER-01, an Innovative Mucolytic for the Treatment of Lung Diseases**

*Supported by premier life science industry investors Canaan, OrbiMed, and Hatteras Venture Partners*

*Proceeds to advance AER-01 into the clinic for treatment of chronic obstructive pulmonary disease (COPD); unique targeted approach to treating patients affected by mucus plugs*

*“Pipeline-in-a-Product” with potential to expand development into multiple other lung diseases such as asthma, bronchiectasis, and cystic fibrosis*

**Raleigh, NC, April 13, 2023** – Aer Therapeutics, a biopharmaceutical company developing novel inhaled treatments for muco-obstructive lung diseases, today announced the closing of a \$36 million Series A financing. Funding was received from a syndicate of premier life science industry investors, including Canaan, OrbiMed, and Hatteras Venture Partners. Proceeds from the financing will be used to advance the development of AER-01, the company’s novel inhaled small molecule mucolytic drug designed to liquefy mucus plugs in the lungs of patients with chronic obstructive pulmonary disease (COPD). Aer Therapeutics plans to initiate a first-in-human Phase 1 clinical trial of AER-01 in mid-2023.

Aer Therapeutics is a spinout from Dr. John Fahy’s laboratory at the University of California, San Francisco (UCSF). Dr. Fahy’s laboratory collaboratively developed AER-01 with Stefan Oscarson’s glycochemistry laboratory at University College Dublin (UCD) and Anne Marie Healy’s pharmaceutical technology laboratory at Trinity College Dublin (TCD). The combined expertise of these laboratories in mucus biology, glycochemistry, inhaled drug formulation, drug delivery, and lung imaging, supported by a development grant from the National Institutes of Health, underlies the novel AER-01 technology.

“We are excited to introduce Aer Therapeutics as a company dedicated to delivering a therapeutic solution to patients with COPD who have severe airway obstruction caused by mucus plugs. Our scientific founders led the pioneering research that uncovered mucus plugs as a key mechanism of disease in COPD, and their laboratories worked together to discover AER-01 as a novel mucolytic treatment. Aer will continue to leverage this expertise in the development of AER-01 and other therapeutic candidates for the treatment of muco-obstructive lung diseases,” said Jim Shaffer, President and Chief Executive Officer of Aer Therapeutics.

It is estimated that approximately five million COPD patients in the United States have a mucus plug-high disease subtype. Conventional COPD treatments such as bronchodilators and

supplemental oxygen do not treat the airway obstruction caused by mucus plugs. Recent advances in the understanding of mucus plug biology and novel methods of quantifying mucus plugs using computed tomography (CT) have created opportunities to advance drug development intended to eliminate mucus plugs. Aer Therapeutics is seizing upon these new opportunities to advance AER-01 for COPD.

“Studies using CT lung scans confirm that mucus plugs are highly prevalent in COPD patients and those with a high mucus plug burden have lower lung function, increased frequency of exacerbations, diminished quality of life, and increased risk of all-cause mortality.<sup>1, 2</sup> These findings provide a basis to specifically treat and remove mucus plugs as a strategy to improve lung health for COPD patients,” said John Fahy, M.D., M.Sc., Professor of Medicine at UCSF and founder of Aer Therapeutics. “COPD is a complex disease and one-size-fits-all treatment approaches are not likely to work. The use of CT imaging in the clinical development for AER-01 will help ensure that treatment is targeted to those patients most likely to benefit from an effective mucolytic.”

As part of the Series A financing, the company has expanded its board of directors to include new appointees: Tim Shannon, M.D., general partner at Canaan; Rishi Gupta, J.D., partner at OrbiMed; Christy Shaffer, Ph.D., general partner at Hatteras Venture Partners; and, Thomas Mathers, CEO at Allievex. They join current board members Mr. Shaffer and Dr. Fahy.

### **About AER-01**

Disulfide bridges cross-link mucin polymers to increase mucus gel elasticity which promotes propensity for mucus plug formation. AER-01 is a thiol-modified carbohydrate (“thiol-saccharide”) which cleaves mucin disulfide bridges to liquefy (“lyse”) mucus plugs. Carbohydrate scaffolds are natural and non-toxic; their polar nature and high aqueous solubility allows them to easily penetrate mucus plugs. AER-01 is a potent and fast acting mucolytic well suited for both nebulizer and dry powder delivery. The compound is supported by a broad preclinical data package generated with the support of a five-year translational program project grant (tPPG) to Drs. Fahy, Oscarson, and Healy from the National Institutes of Health (National Heart Lung and Blood Institute). Aer Therapeutics obtained an exclusive worldwide license to its foundational intellectual property from UCSF, UCD and TCD by partnering with UCSF’s Innovation Ventures which leads business development and licensing efforts on behalf of UCSF .

### **About Aer Therapeutics**

Aer Therapeutics is a clinical stage biopharmaceutical company with a mission to develop novel treatments for mucus-associated lung diseases. The company leverages the expertise of its scientific founders in airway mucus biology and pathology, medicinal glycochemistry, and inhaled pharmaceuticals and the experience of its management team in drug development for lung disease. Phase 1 clinical trials of its lead drug candidate AER-01 will start in 2023 with potential to expand development into multiple other indications such as asthma, bronchiectasis and cystic fibrosis. Learn more at: [www.aertherapeutics.com](http://www.aertherapeutics.com)

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