KAER Biotherapeutics Awarded NIH Grant to develop SUPRAER® Surfactant Aerosol Therapy for Neonatal Respiratory Distress

Respiratory distress is the single most important cause of mortality and morbidity in preterm infants and is caused by a deficiency of lung surfactant.

SAN DIEGO, CA, USA, May 22, 2019 /EINPresswire.com/ -- KAER Biotherapeutics has received a Phase I SBIR grant, “Non-Invasive Surfactant Aerosol Therapy for nRDS”, to further the development of its patented SUPRAER® aerosol generation and delivery technology for treating surfactant-deficient premature babies with Respiratory Distress Syndrome (nRDS).

Of the 15 million premature babies born annually worldwide, one million die within the first month of life, and many of the 14 million who survive have childhood respiratory problems followed by a lifetime of serious health complications. Respiratory distress is the single most important cause of mortality and morbidity in preterm infants. Current instillation of liquid surfactant into the lungs of babies following intubation or penetration of a catheter in to the tracheobronchial tree is a slow, traumatic procedure that results in potentially preventable complications. KAER Biotherapeutics has been awarded a Phase I SBIR grant of $0.3M from the National Heart Lung and Blood Institute of the National Institutes of Health to develop a novel, rapid surfactant aerosol delivery system that improves respiratory function, initially to be evaluated in an animal model of nRDS.

KAER’s SUPRAER® platform technology aerosolizes liquids containing active pharmaceutical agent(s) in viscous solutions (such as biologics) and delivers them as concentrated, pure, solid-phase aerosols at selected diameters between 1.5 and 5 microns. Depending on the size selected, these aerosols are suitable for deposition in the conducting airways or deep lung. This latest SBIR award further expands KAER’s capabilities for providing lifesaving aerosol therapies for critically ill patients with compromised respiratory function, including a system for treating adult acute respiratory distress syndrome (ARDS). The production of this device is also funded by the NIH. ARDS has a 40% mortality rate with no approved drug treatments.

Donovan Yeates PhD, the principal investigator of these NIH awards has summarized the need for the development of surfactant aerosol delivery in both neonates and patients succumbing to respiratory distress later in life in: Yeates, D.B., Surfactant Aerosol Therapy for nRDS and ARDS. (2019) In: ‘Inhalation Aerosols, Physical and Biological Basis for Therapy’, InformaHealthCare/CRC Press/Taylor & Francis, Third Edition. Eds. A.J. Hickey and H.M. Mansour. Chapter 21 327-342.

Dr. Yeates is presenting details of KAER’s aerosol technology programs at the Inhalation and Respiratory Drug Delivery Summit in New York on May 31 and at the BIO International Convention in Philadelphia on June 3.

The nRDS program is supported by NHLBI Award Number 1R43HL142335. This Press Release does not necessarily represent the official views of the National Institutes of Health.

KAER Biotherapeutics is a preclinical respiratory drug delivery company addressing the needs of critically ill patients in clinics and hospitals who require effective aerosol therapy. KAER is initially focused on providing surfactant aerosol therapy to patients who are in respiratory distress due

to an insufficiency of active surfactant in the lungs. These patients include adults with acute lung injury as well as prematurely born infants. Treatment with surfactant aerosol is projected to improve respiratory gas exchange and save lives. KAER is seeking partners to facilitate the rapid implementation of its aerosol delivery technology for the treatment of neonatal respiratory distress syndrome, acute lung injury, idiopathic pulmonary fibrosis, lung cancers, TB, hospital acquired pneumonia, and other debilitating lung diseases.

CONTACT: Donovan Yeates, CEO, KAER Biotherapeutics, dyeates@kaerbio.com, www.kaerbio.com

Donovan Yeates, CEO
KAER Biotherapeutics
+1 760-480-9400
email us here
