



# Peroxitech

## Company Overview

Peroxitech is pursuing a breakthrough treatment for acute lung injury. Based on recent events, the most pressing application of our lead candidate is COVID-19 induced acute lung injury. In COVID patients, acute lung injury is the leading cause of death and mortality can exceed 85%. Our co-founders and scientists discovered a new pathway and a novel drug to treat and prevent acute lung injury.

## Problem

ALI (acute lung injury) is a devastating disease with no approved therapeutic treatments. ALI is the result of a primary injury associated with COVID-19, influenza, sepsis, severe trauma, and bacterial pneumonia among many other etiologies. In ALI, this can lead to an aggressive immune response manifested by a “cytokine storm” that causes oxidative damage and inflammation in the lungs. Mortality rate for ALI patients with optimal supportive care is approx. 40%; however, the latest reports show mortality in COVID patients with ALI to be approx. 85%. The average ALI patient spends over 30 days in hospital of which 20 days are spent with ventilatory support in an ICU setting. The average ALI patient incurs over \$250,000 in direct health care costs.

## Solution

Over production of ROS (reactive oxygen species) by the immune system is thought to be a major driver of the resulting cytokine storm leading to ALI.

We have discovered an upstream pathway that is required for activation of ROS production in the lung and have developed a novel drug to inhibit this pathway that leads to the ROS cascade process and to significantly reduce the downstream cytokine storm. In pre-clinical studies, our lead compound, PIP-2, shows prevention and rescue in an ALI model. Also, in two separate 5-day mortality models, 70-80 % of PIP-2 treated animals survived versus 0% in placebo arms. To date, no other compound has been reported to show this level of survival. Due to the global COVID health crisis, the development of PIP-2 can be accelerated. We expect to have data from studies in humans within 1 ½ years. Once approved, revenue potential for PIP-2 will be significant. There will be two initial markets, COVID induced ALI and ALI caused by other diseases. PIP-2 will also have applications in several other high unmet indications.

## Team Information

Aron Fisher MD, Co-Founder, is professor and director of the Institute for Environmental Medicine at the University of Pennsylvania Perelman School of Medicine. Dr. Fisher is an expert in acute lung injury and inventor of the technology.

Sheldon I. Feinstein PhD, Co-Founder, was a Senior Research Investigator in the Institute for Environmental Medicine at the University of Pennsylvania. He has performed research on the molecular biology of the lungs for over thirty years.

Thomas Han, CEO & Co-Founder, has over 30 years of executive-level experience in pharmaceuticals and brings considerable expertise in operations, corporate development, and commercialization to Peroxitech.