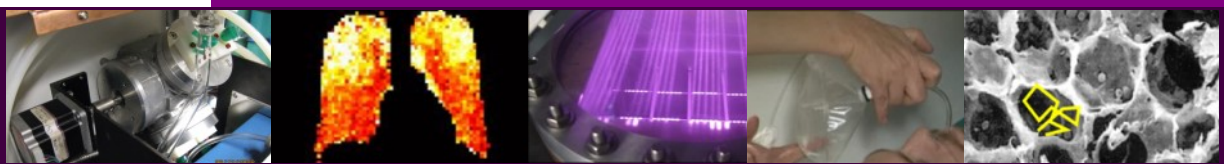
Xēmed

Images... from the air we breathe

What if

... lung tissues and airways responsible for respiratory diseases could be mapped just by inhaling a breath?



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Mission: At Xemed, our mission is to develop inhaled diagnostic agents that are capable of changing the management of respiratory diseases. We have assembled an industry-leading management team with broad expertise in production of hyperpolarized gases to make high-resolution imaging of lung functional characteristics and pre-symptomatic detection of respiratory pathology a reality. We are partnering with researchers at teaching hospitals and pharmaceutical companies in Phase II studies of MagniXene® to validate novel imaging protocols and quantify their sensitivity and specificity to disease symptoms.

Markets: MagniXene® is finding applications in the pharmaceutical industry as a drug development tool by quantifying the respiratory health of subjects enrolled in clinical trials. Furthermore, the spatial information provided by MagniXene® magnetic resonance images will soon be applied to guide minimally-invasive interventions administered through a bronchoscope.

Technology: Bags of MagniXene® are produced at magnetic resonance imaging suites on-site by Xemed's compact and automated XeBox-E10, and inhaled by patients lying in an MRI scanner. By mimicking transport and exchange of oxygen upon inhalation, Xemed's hyperpolarized xenon imaging agent MagniXene® maps the performance of the lung's functional microstructure, including its tiniest airways, alveolar septal walls, and capillaries. A complete characterization of a subject's lungs can be completed within a few short breath holds. Xemed's technology is supported by an extensive patent portfolio through an exclusive intellectual property agreement.

Medical Need: There is a compelling need for improving the care and treatment of patients with respiratory diseases. Chronic obstructive pulmonary disease (COPD) is the third leading cause of death in the United States. While asthma afflicts roughly 8% of the US population, it presents a severe and uncontrollable condition for 1%, roughly three million Americans, leading to frequent hospitalizations throughout their lifetimes. Prevalence of both these diseases is rising, as is their $32B cost of care. By assisting in the approval of new drugs or by guiding interventions, MagniXene® MRI can likely improve disease management and lower costs. MagniXene® MRI does not involve ionizing radiation so it can be used repeatedly with minimal risk.

MagniXene® image of the ventilated airspaces of healthy lungs, depicted as a coronal slice through a 3D dataset

XeBox-E10 delivers cGCP-compliant production of MagniXene® with on-board diagnosis and quality logging.