THE PROBLEM

Diagnosing the onset and severity of lung diseases, specifically Acute Respiratory Distress Syndrome (ARDS), is difficult and time consuming, resulting in a high morbidity rate.

Existing gas analyzers are not portable or capable of rapidly quantifying vapor.

Blood tests and lung biopsies are invasive.

Treatment and therapy are delayed.

THE SOLUTION

Quick diagnosis of diseases like ARDS, resulting in appropriate treatment sooner:

- Results in 20 minutes with real-time continuous monitoring
- Portable, weighing 9 pounds
- Non-invasive
- No additional cost to the patient

Developing a device to diagnose life-threatening lung diseases through exhaled breathe

Volatile organic compounds (VOCs) in exhaled breathe carry important information about our physiology and are impacted by disease, creating unique patterns called “breathomic signatures.”

Micro-Gas Chromatography is a fully automated, high-performance multi-dimensional device that recognizes and analyzes breathomic signatures to help guide diagnosis.

THE TECHNOLOGY

Micro-Gas Chromatography

AWARD AMOUNT: $112,301

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