MICRO GAS CHROMATOGRAPHY DEVICE
NEW POINT-OF-CARE DIAGNOSTIC FOR ACUTE LUNG INJURY

UNMET NEED
Exhaled breath contains hundreds of volatile organic compounds (VOCs), many of which could be used to predict the onset and severity of critical lung diseases and help guide therapy.

However, there are no commercial portable gas analyzers capable of rapidly quantifying vapor mixtures as complex as breath.

SOLUTION
Xudong Fan, PhD and Kevin Ward, MD have developed a portable, fully automated, high-performance multidimensional micro-gas chromatography device that detects and monitors critically ill and injured patients who may be at risk for Acute Respiratory Distress Syndrome (ARDS).

Breath + Hardware + Algorithm = Diagnosis

COMPETITIVE ADVANTAGE
Unlike blood, breath can be non-invasively and continuously collected and analyzed. Real-time analysis of VOCs could allow for the identification of breathomic signatures (patterns) that enable the early diagnosis of ARDS and its stratification, as well as trajectory monitoring for patients with established ARDS.

RESULTS IN <20 MINS
PORTABLE (<5KG)
FULLY AUTOMATED
NON-INVASIVE