

Principal Investigators



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Collaborators



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Team

Sepsis Endotheliopathy Assessment Panel

Rapid detection and analysis of endothelial cells and coagulation/inflammation biomarkers in blood to diagnose and monitor sepsis

Competitive Advantage



SPEED

15-minute rapid, bedside diagnostic



MULTI-USE

Diagnose sepsis and severity + monitor therapeutic intervention



PORTABLE

Laptop-size for use in hospital, ambulatory and long-term care facilities



COMPATIBLE

Utilizes standard syringe and tubing equipment



COST

Lower equipment and operational cost compared to competition

GLASS CAPILLARY STRUCTURE

Detects endothelial cell damage >> Linked to sepsis + sepsis severity

Tests for blood biomarkers

OPTOFLUIDIC DEVICE

Detects inflammation/coagulation biomarkers >> Linked to sepsis

Replaces traditional ELISA reader

Technology

Commercialization Roadmap

Potential Partners
Enzo Lifesciences
Abbot
Optofluidic Bioassay

Class II Device
501(k) regulatory pathway

License Technology or New Startup Company

PROJECT MILESTONES

Fabricate multi-hole capillaries

MONTH 1

Assemble entire optical detection and microfluidic systems

MONTH 2

- Begin endothelial cell detection
- Complete detection of 6 biomarkers in buffering agent

MONTH 3

Benchmark against current standard test (ELISA)

MONTH 4

- Evaluate accuracy of endothelial cell detection in standard solution of cells
- Complete detection of 6 biomarkers using blood

MONTH 5

Test endothelial cell detection & benchmark against current standard (FACS)

MONTH 6