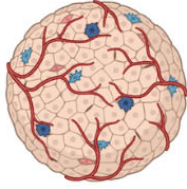


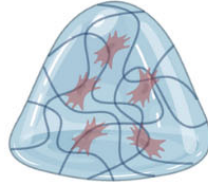
What are MPS?

Microphysiological systems (MPS) are small tissue culture platforms that replicate cellular, biochemical, and biophysical properties of human tissues and organs

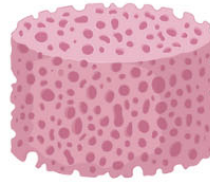
Organoids



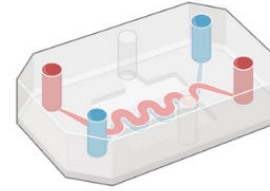
Hydrogels



Scaffolds



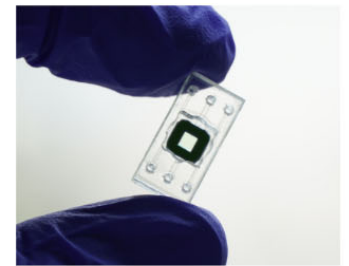
Organs/Tissue on chip



Example of MPS culture systems for various applications

What can MPS do in medical research?

- Mimic complex 3D human tissue micro-environments.
- Represent realistic flow and pressure with microfluidics.
- Accelerate drug development and model rare diseases.
- Replace and reduce use of animals in biomedical research.



MPS are easily scalable for high impact drug research

MPS research projects at the University of Rochester



Retina on a Chip to Study
Macular Degeneration



Blood Brain Barrier Chip to Study
Brain Degeneration



Salivary Gland Tissue Chip to Study
Radioprotection



Lung on a Chip to Study Sepsis



Human Tendon on a Chip to study Fibrosis



Bone Marrow Chip to Study Leukemia
and Efferocytosis



Bone Chip to study Staphylococcus
Infection

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UNY-MPSS 2024!
Upstate NY MPS Symposium



June 3rd, 2024, 9:00am



Goergen Hall
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