



Showcasing a high-throughput microphysiological system (MPS) to study immune cell-vascular tissue interactions from Draper Laboratory, Cambridge, MA, USA.

Enabling the recirculation of leukocytes in a high-throughput microphysiological system (MPS) to study immune cell-vascular tissue interactions

The ability of MPS to model interactions between vascular tissues and circulating cells requires extended exposure under physiological flow; however, long-term recirculating immune cell health has not been supported in MPS systems to date. This work introduces a high-throughput, hemodynamically relevant MPS that supports up to 24 hours of continuous recirculation of human neutrophils through vascular tissue with high viability and low activation. This platform will enable accurate modeling of vascular (patho) physiology to enhance the understanding of a range of health challenges and the ability to mitigate them.

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As featured in:



See Corin Williams *et al.*,
Lab Chip, 2026, **26**, 812.