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Microfluidics approaches to assess thrombosis and inflammation risks in RNA therapeutics

BioMicroSystems Laboratory (Hou Lab)

Microfluidics, Blood diagnostics, Neutrophil/platelet immunoprofiling, Blood vessel-on-a-chip

Microfluidics for RNA research

- Rapid screening of siRNA/ASO-induced platelet activation and inflammation in blood to (1) develop safer ASOs and (2) to predict thrombocytopenia/thrombosis risk prior or during RNA therapy
- Organ-on-chip vascular model to study how RNA therapeutics design/chemical modifications can induce endothelial dysfunction and barrier delivery in vitro

