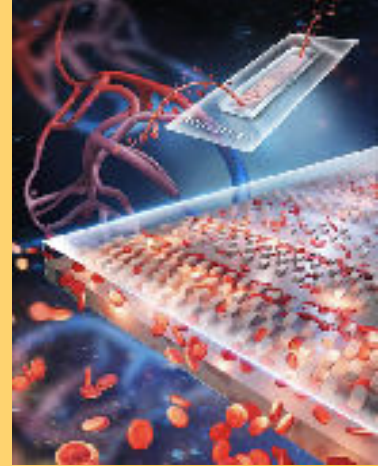


OcclusionChip

Assessing microvascular occlusion mediated by red blood cells



About

MICROVASCULATURE MIMICKING

A gradient of microcapillary networks Side passageways mimicking the arteriovenous anastomoses

CIRCULATORY DISEASES

A universal parameter for assessment of RBC deformability in many circulatory diseases (RBC health gauge): Occlusion Index (OI)

ADHESION & DEFORMABILITY

The OcclusionChip can be functionalized with adhesion proteins for simultaneous adhesion & deformability measurements

SAMPLE

Isolated RBCs at near physiologic hematocrit level (20%)

Highlights

TARGETED THERAPIES

Drugs that target RBC sickling/deformability (e.g., Voxelotor) in SCD

CURATIVE THERAPIES

NHLBI-supported multisite study to assess RBC mediated microcapillary occlusions before and after a gene-based (2) therapy for curative intent (1)

1. <https://curesickle.org/>
2. Based on publications: Lab on a Chip, 2020; Microcirculation, 2020

Typical Uses

- ✓ CLINICAL ASSAY
- ✓ PERSONALIZED MEDICINE
- ✓ RESEARCH
- ✓ DRUG DEVELOPMENT

Treatment Response

