

# Long-term Immune Cell Perfusion

## Discover Akura™ Immune Flow

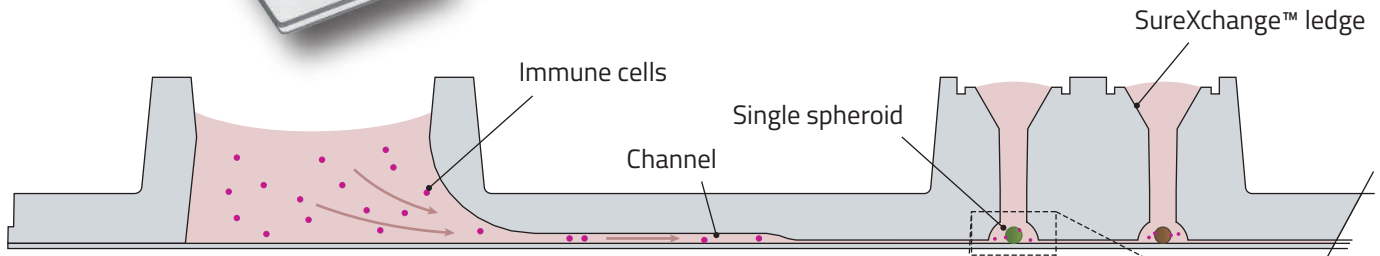
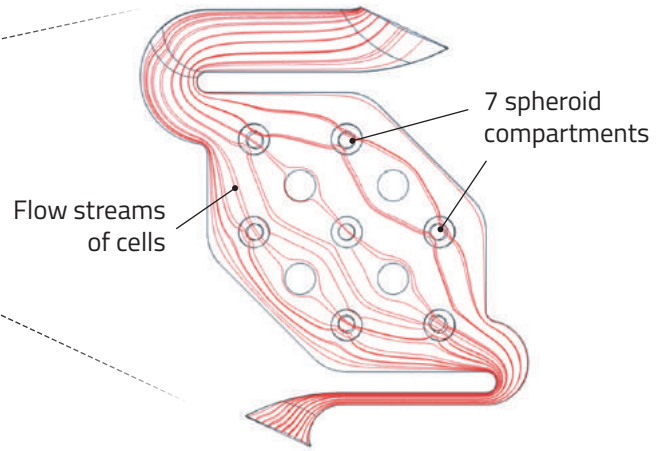
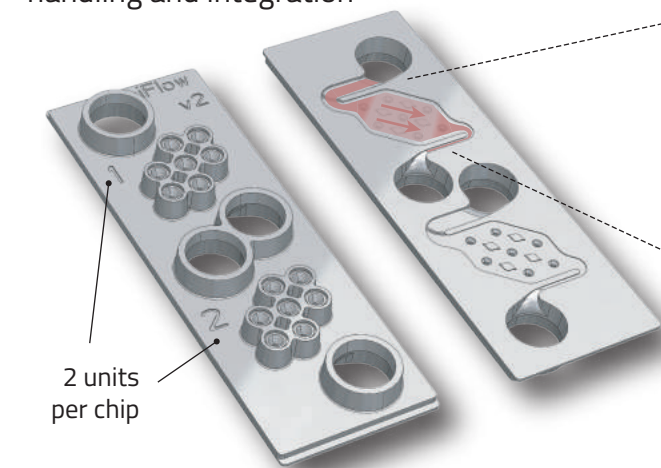
Multi-organ **Immune** Cell Interaction **under Flow**



### Chip Layout

- Microfluidic system for culturing suspension cells with up to **7 different spheroids**
- Polystyrene microscopy-slide format for convenient handling and integration

- Meander channel structure prevents cell sedimentation and keeps cells in suspension for up to 7 days

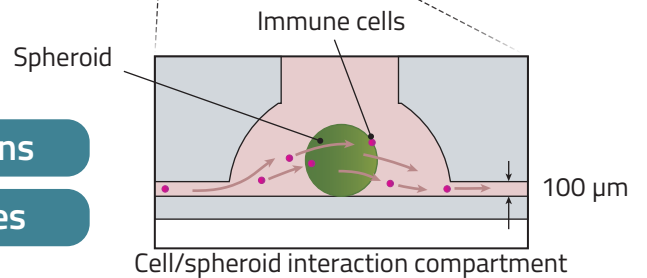


### Applications

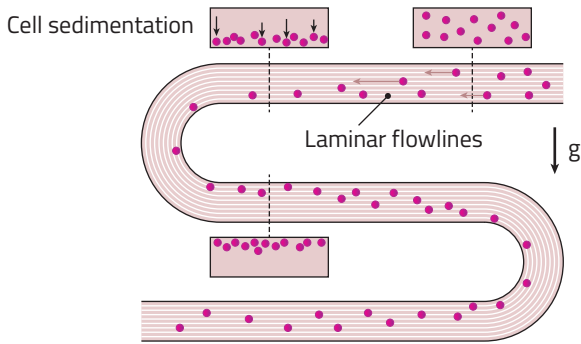
Characterize effect of flow on immune cell populations

Study immune cell attachment to 3D tissue structures

Recapitulate metastasis under flow conditions on multiple organ models



## Unique Features

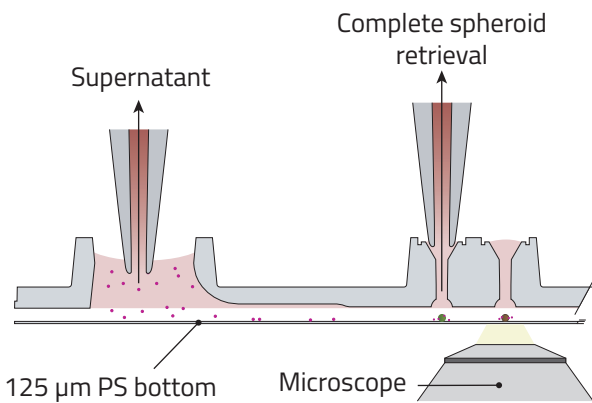
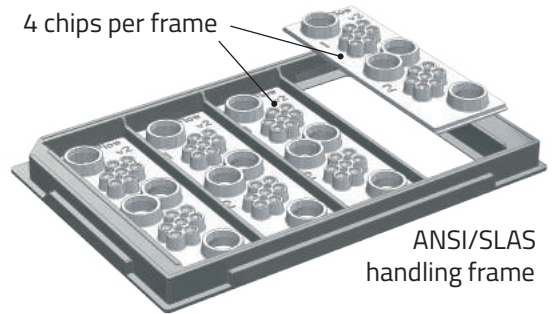


### Rely on an innovative perfusion concept for suspension cells

- Patent-pending, meandric channel combined with vertical orientation prevents cell sedimentation and keeps cells in flow
- Cell interaction chamber with a large channel reduces flow speed and enhances long-term interactions
- Gravity-based flow with defined medium volume enables multi-passage of cells and secretome analysis and effects

### Experience an intuitive and robust handling

- Standard chip format and parallelization by assembly in ANSI/SLAS handling frame for quick implementation with widely used lab tools
- Conical well design with SureXchange™ ledge for easy loading and access of spheroids
- Pump and tubefree perfusion for flexible scaleup and access to medium and cells



### Access a wide range of read of methods

- Anytime access to supernatants using manual or automated pipetting
- Collecting cell suspensions for Flow Cytometry Analysis
- Retrieval of spheroids for lytic assays, histology or RNA sequencing
- In-situ high-content imaging with minimal optical aberration with a flat and transparent PS bottom

## Workflow

