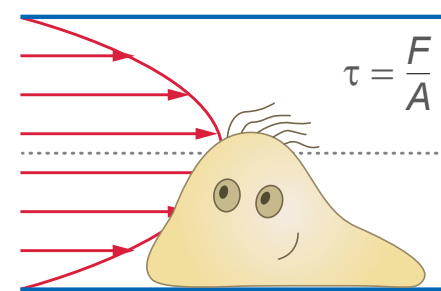
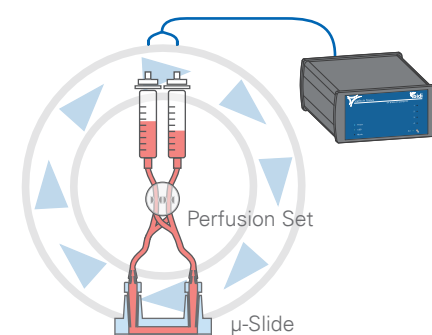


Defined Shear Stress



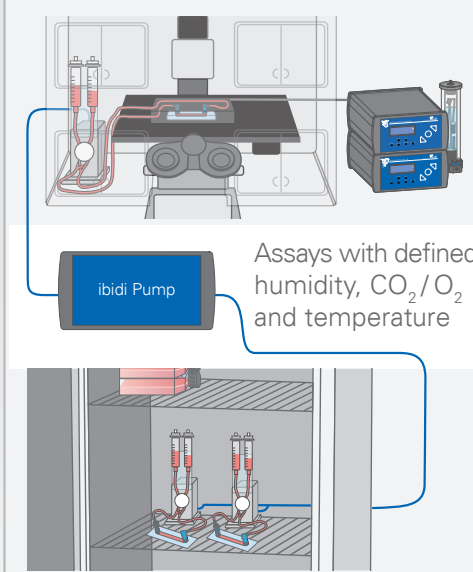
- Software-based flow programming including shear stress and shear rate calculation
- Simulation of all physiological flow patterns with a wide shear stress range (0.1–200 dyn/cm²)

Closed System

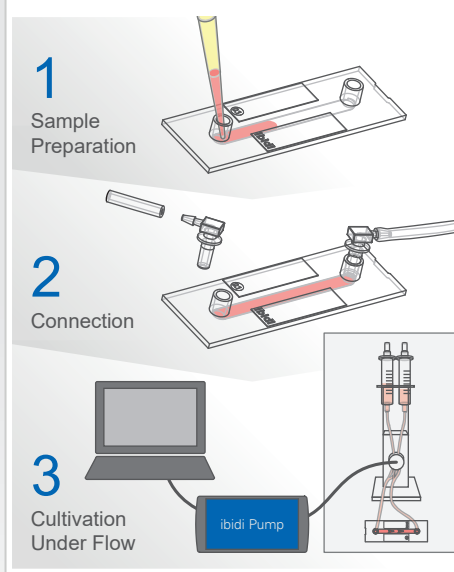


- Long-term sterile setup
- Recirculating medium at low volumes
- No medium contact with mechanical parts

Physiological Conditions

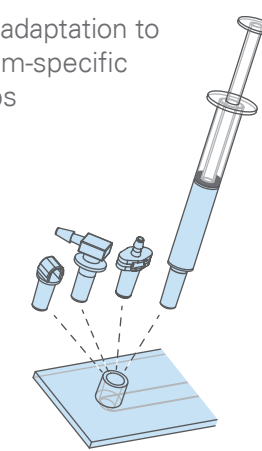


Easy Workflow

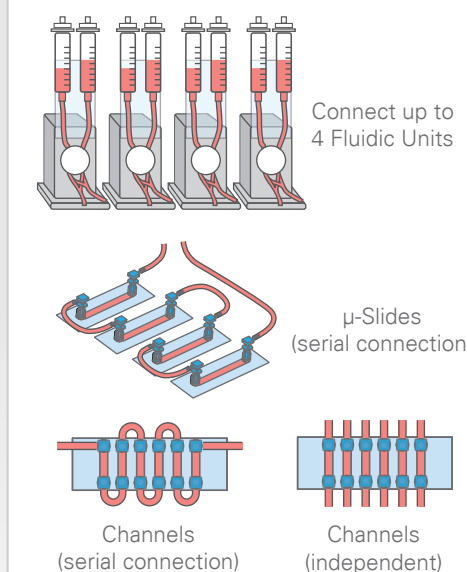


Standard Luer Ports

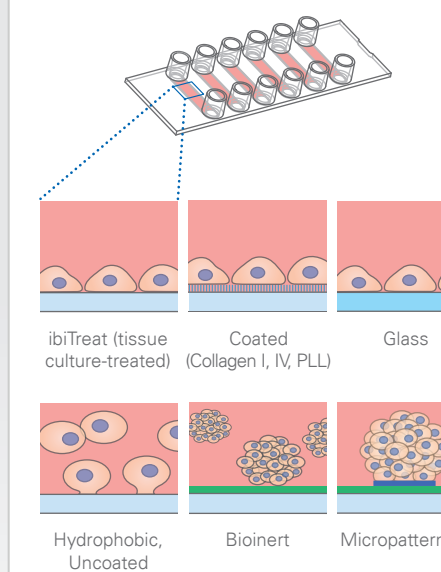
- Plug-and-play connection
- No microfluidic knowledge necessary
- Easy adaptation to custom-specific setups



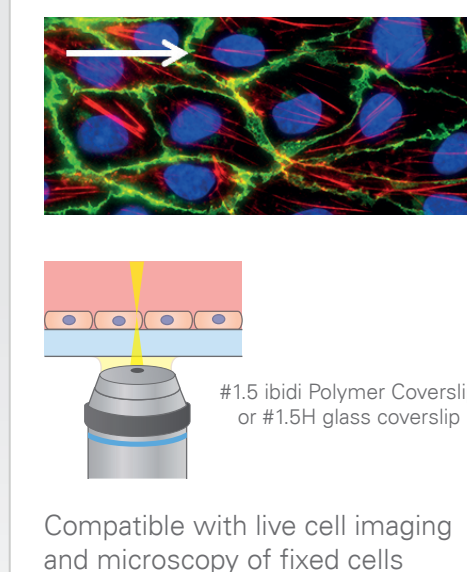
Parallelization



Flow Chamber Surfaces



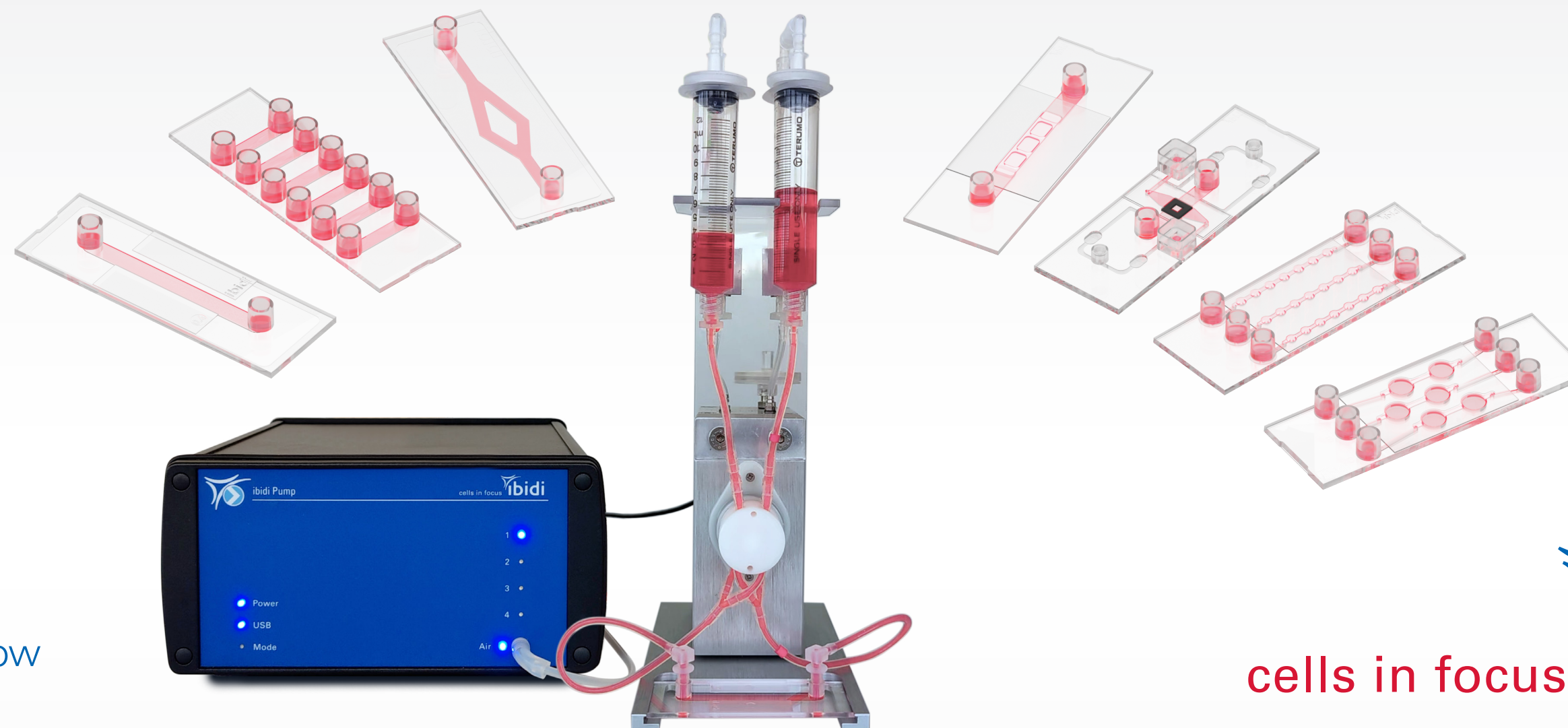
Microscopy Readout



The ibidi Pump System

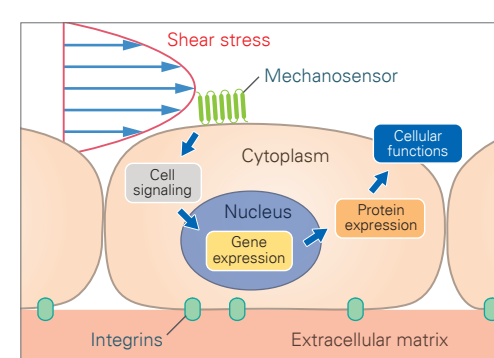
Revolutionize Your Cell Culture Assays

- Establish perfused *in vivo*-like cell cultures
- Simulate defined flow types (laminar unidirectional, pulsatile, and oscillatory)
- Compatible with μ-Slides with Luer adapters
- Combine with microscopes for live cell imaging under flow

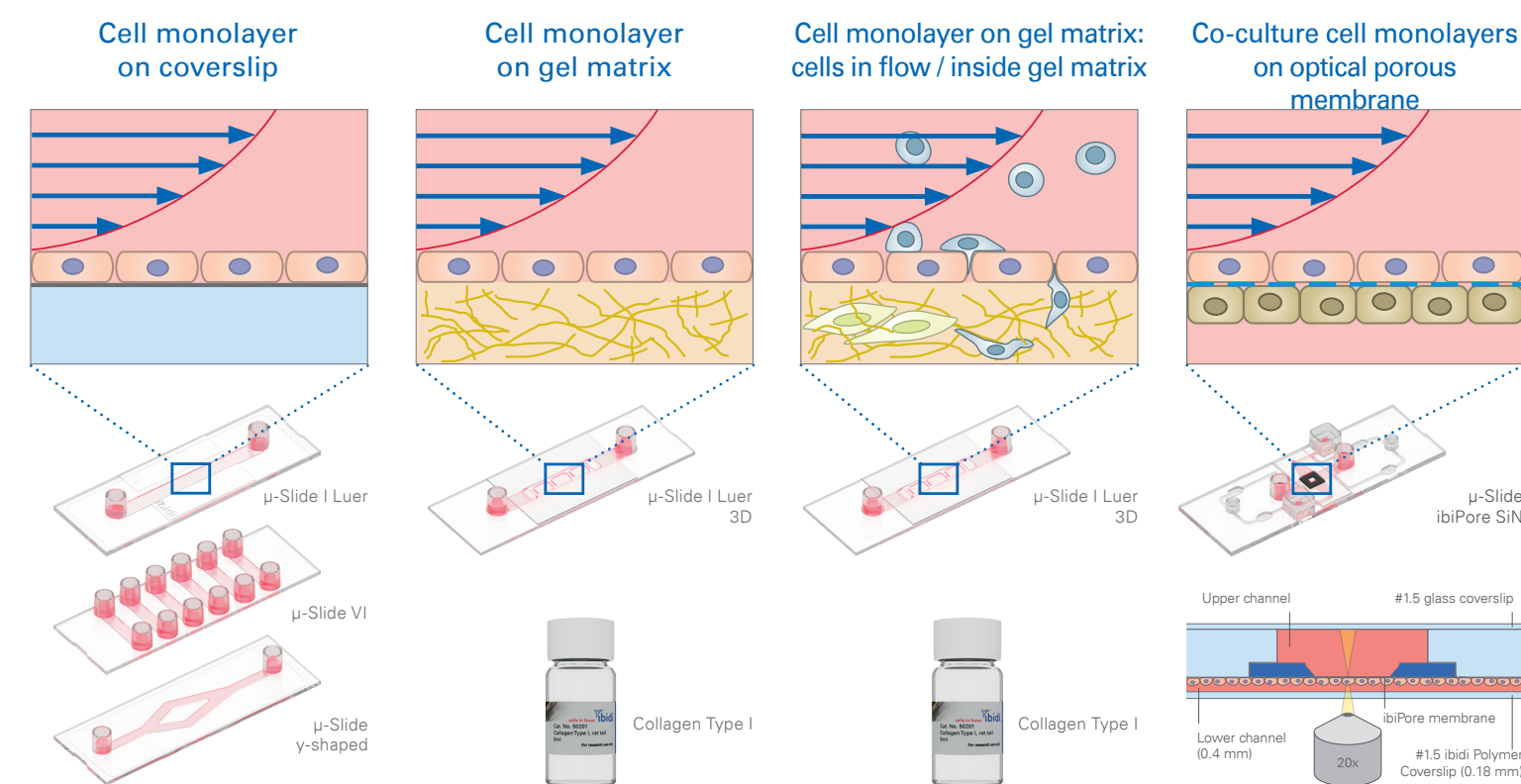


cells in focus **ibidi**®

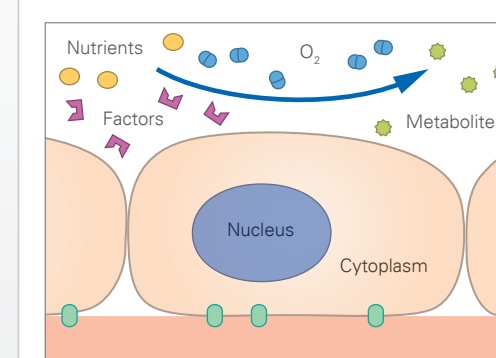
Wall Shear Stress



- Simulation of mechanical forces (shear stress) created by fluid flow in biofluidic systems (e.g., blood or lymphatic vessels, nephrons)
- Physiological long-term cultivation of vascular endothelial and epithelial cells
- Analysis of relevant readouts, such as cell morphology, behavior, and physiology



Perfusion-Based 3D Bioreactor



- Physiological long-term 2D and 3D cell culture (e.g., of organoids, spheroids, organs-on-a-chip)
- Continuous medium exchange for constant nutrient supply
- Ensured optimal cell viability and health

