



2 day Laboratory Course at ibidi Munich/Germany

Cell Cultivation under Perfusion and Live Cell Imaging

Topics:

Several adherent cell types are exposed to shear stress conditions *in vivo*, e.g., endothelial cells in a blood vessel. Culturing cells *in vitro* under perfusion conditions simulates this mechanical stimulus and induces a more physiological behavior. The objective of the course is to give scientists a profound background in cell culture biology and physical basics of perfusion-based assays. In the practical part, endothelial cells are cultured under physiological flow conditions. The hands-on sessions give time to practice the handling of ibidi channel slides and the ibidi Pump System.

Target Group:

The course is intended for scientists and technical associates with a profound experience in cell culture and sterile working techniques who want to establish perfusion-based assays in their lab.

Schedule Day 1

Start at 10 am

- Welcome and introduction
- Talk 1: Physical basics 1 (Shear stress, viscosity, flow rates)
- Talk 2: Shear stress calculations and handling tips

Lunch

- Hands-on Part 1: Handling of channel slides
- Talk 3: Physical basics 2 (Flow profile, ibidi Pump System)
- Hands-on Part 2: Exposing cells to flow

Summary day 1 (around 5 pm)

Schedule Day 2

Start at 9 am

- Hands-on Part 3: Microscopy of flow-conditioned cells
- Talk 4: Flow setups, example publications, and ibidi results

Lunch

- Hands-on Part 4: Setup of ibidi Pump System, flow calibration
- Discussion and conclusion

End of training at around 4 pm

Participation is free of charge.

The number of participants is limited to 8. For registrations and further questions please contact us at: info@ibidi.de.