



Cell Migration – Practical Course for GCB students

Dates: October 21 through October 25, 2024
Time: full day – full week participation required
Organizers/Tutors: Prof. Dr. Britta Engelhardt, Prof. Daniel Legler, Prof. Dr. Ruth Lyck,
Dr. Steven Proulx
Venue: Theodor Kocher Institute, Freiestrasse 1, 3012 Bern

Course Description:

The weeklong laboratory course gives a practical and theoretical introduction into methods allowing to study cell migration with a focus on immune cell migration:

- Cell adhesion assay (immune cell interaction with endothelial or epithelial cells)
- «Stamper-Woodruff» frozen section- adhesion assay
- Transmigration assay (immune cell migration across cellular monolayers)
- Chemotaxis assay
- Characterization of molecular traffic signals on control and inflamed endothelial or epithelial cells (immunofluorescence, flow cytometry)
- *In vivo* homing studies with fluorescently labeled immune cells
- *In vitro* live cell imaging: Immune cell interaction with endothelial cells under physiological flow
- *In vivo* live cell imaging using epifluorescence, two-photon and near infrared intravital microscopy: immune cell trafficking *in vivo*

Limitations: 6– 8 students (with waiting list)
Priority will be given to those students who have selected this course in agreement with their mentor, within the framework of the GCB

Credits: 2.0 ECTS

Registration: [via CTS/KSL Nr. 102642](#)

Registration open from: January 2024

Deadline for registration: **Thursday, September 19, 2024**

Exam: Oral discussion on last day and written report