Cell Migration – Practical Course

Dates: Fall; next course: December 11-15, 2017
Time: whole days
Organizers/Tutors: Prof. Dr. Britta Engelhardt, Prof. Dr. Jens Stein & PD Dr. Ruth Lyck
Venue: Theodor Kocher Institute, Freiestrasse 1, 3012 Bern

Course Description:
The weeklong laboratory course gives a practical and theoretical introduction into methods of immune cell migration assays:

- Cell adhesion assay (leukocytes or tumor cells on endothelial or epithelial cells)
- «Stamper-Woodruff» frozen section- adhesion assay
- Transmigration assay (leukocytes or tumor cells across endothelial or epithelial monolayers)
- Chemotaxis assays
- Flow Cytometry: Characterization of molecular traffic signals on control and inflamed endothelial or epithelial cells (immunofluorescence, FACS analysis)
- In vivo homing studies with fluorescently labeled immune or tumor cells
- In vitro flow assays: Studying leukocyte or tumor cell interaction with the vascular wall under physiological flow. Leukocytes/tumor cells on recombinant proteins or endothelial cells
- Demonstration of in vivo live cell imaging using epifluorescence or twophoton intravital microscopy: leukocyte recirculation in vivo

Limitations: 6 to max. 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 and have listed it as «mandatory requirement» in their Doctoral Agreement

Credits: 2.0 ECTS
Registration: via CTS/KSL, root number: 102642
Registration open from: Thursday, June 1, 2017
Deadline for registration: Friday, October 27, 2017
Exam: Written report