Workshop

Title: Intravital Microscopy

Date, duration: On demand, 2 days

Location: Theodor Kocher Institute, 3012 Bern, Freiestrasse 1

Lecturer(s): Dr. Gaby Enzmann (TKI)

Number of participants: 1 – 2 students

Target audience: Master and PhD students of the University of Bern. Lecture Series on Advanced Microscopy plus exam (KSL 9256)

Registration: Send request to Gaby Enzmann (gaby.enzmann@tki.unibe.ch) and Giuseppe Locatelli (giuseppe.locatelli@tki.unibe.ch)

KSL: 470972

Reward: 1.0 ECTS

Costs: 518 CHF (total costs per course)
- PhD students enrolled in the Graduate School for Cellular and Biomedical Sciences (GCB) can apply for refund at the PhD program Cutting Edge Microscopy (limited until 31st December 2022)
- Amount accounts for students of the University of Bern. Other participants, please request quote.

Learning goals: Principles of epifluorescence intravital microscopy (IVM) with focus on leukocyte migration across the blood brain barrier (BBB)

Description: The first day of the practical class will consist of in vitro labelling of leukocytes, practical demonstration of preparation of a mouse cranial or spinal cord window and the in situ aspect of the IVM experiment. The second day will be dedicated to data analysis.
Course structure: The student(s) will receive an introduction into the general principles of epifluorescence IVM during a seminar. They will then participate in the labeling of leukocyte subsets, which will be introduced into the experimental animal at a later time point. The preparation of an optical window including anesthesia and animal care will be demonstrated. The student(s) can assist the researcher performing live cell imaging. In depth teaching and discussion of all aspects of the experiment including data analysis will be offered during the course of this class.

Assessment: Written report