Immunohistochemistry, immunofluorescence and microscopy in paraffin embedded sections

Course teachers: Dr. Fabian Blank, Carlos Wotzkow

Duration: 5 days

Frequency: Once every year, usually held in November.

Location: DCR LCI Core Facility, Murtenstrasse 50, 3008 Bern

Content: Teaching of basics and advanced techniques

1. Sample preparation
   a. Preparation and fixation of Tissue
   b. Embedding in paraffin
   c. Cutting and mounting of paraffin sections

2. Labeling procedure
   a. Permeabilisation, antigen retrieval, blocking
   b. Incubation with antibodies: Direct/Indirect labeling
   c. Counterstaining, mounting of samples, bleaching protection

3. Special
   a. Controls for proper tissue processing; controls for proper immunolabeling
   b. Optimized imaging using bright field and fluorescence (conventional/LSM) microscopy
   c. Optimization of labeling protocol for individual experiments

Prerequisites:

• Master students: Passing the exam of lecture “Cutting Edge Microscopy”
• Applicants for the course are kindly asked to provide a brief outline of their interest in the course (e.g. a project requiring methods performed in the course; problems with a current method/protocol, etc.).
• Due to limited number of participants, we will not accept requests from students not in real need of those techniques.
• Participants have to pay a fee of CHF 400.- per person for this course.

Exam: Poster or oral presentation or exam

ECTS: 2.5