

b UNIVERSITÄT BERN

Medizinische Fakultät Vetsuisse Fakultät Phil.-Nat. Fakultät

Microscopy Imaging Center

Title: Course of Histology:

Workshop

Immunolabelling of Paraffin, Cryo-embedded Sections

and Fixed Cells

Date, duration: On demand, 5 days (usually held in November)

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

Lecturer(s): PD Dr. phil. Fabian Blank (DBMR)

Carlos Wotzkow (DBMR) Selina Steiner (DBMR) Dr. Yury Belyaev (MIC)

Contact: fabian.blank@unibe.ch

Number of participants: Max. 6 students

Target audience: Master and PhD students of the University of Bern.

Attendees of the Lecture Series on Advanced Microscopy plus exam (KSL

9256)

Registration: Send request to Fabian Blank (fabian.blank@unibe.ch)

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 stu-

dents not in real need of those techniques.

KSL: 454901

Reward: 2.5 ECTS

Costs: CHF 400 per student of the University of Bern.

- Other participants, please request quote.

- PhD students enrolled in the Graduate School for Cellular and Biomedical Sciences (GCB)

can apply for refund at the PhD specialization program Cutting Edge Microscopy.

Learning goals: Opportunities and pitfalls in histological procedures; Handling of required

reagents in an optimized economic way.





UNIVERSITÄT Bern

Description: 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

Course structure: Lectures and practical trainings

Assessment: Poster or oral presentation or exam