UNIVERSITÄT BERN

MIC training: Colocalization microscopy

Date:	April 23, 2026
Time:	9 am – 5 pm
Location:	Institute of Cell Biology, Baltzerstarsse 4, room C159, 3012 Bern.
Trainers:	Dr. Arne Seitz, Dr. Romain Guiet, BIOP, EPFL, Lausanne (CH) Dr. Yury Belyaev, MIC, University of Bern, Bern (CH)
Organizer:	Dr. Y. Belyaev, MIC of the University of Bern (www.mic.unibe.ch). Supported by the PhD specialization Cutting-Edge Microscopy.
Number of participants:	Minimum 6, maximum 12.
Registration:	until April 9, 2026, online here.
Target audience:	Anyone interested in learning both theoretical and practical aspects of colocalization analysis using different fluorescence microscopy modalities**. Preferences are given for participants who already have a colocalization project.**
Credits:	Certificate of attendance. 0.5 ECTS can be awarded to CEM students after presenting how the course material can be applied in their own research.
Background:	Colocalization analysis is a key quantitative method for assessing the spatial overlap of multiple fluorescence signals within biological samples. This hands-on course provides a comprehensive introduction to colocalization: from image acquisition and data preparation to statistical interpretation of results.
Content:	The course covers the key steps of colocalization analysis, from image acquisition and preprocessing (including chromatic aberration correction and deconvolution) to quantitative evaluation using FIJI or related tools.
Learning outcome:	Participants will understand the basic principles of colocalization and its quantitative measures. They will learn to plan and perform image acquisition, apply preprocessing steps such as chromatic aberration correction and deconvolution, and analyse data using FIJI or other tools. They will also be able to evaluate results critically and recognize possible artifacts.
Course fee:	Free or charge. Cancelation after April 9, 2026 or no show – administrative fee of 100 CHF.
Schedule:	See next page.

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Time	Day 1 Thursday, 23.04.26
9:00-12:00	Presentation of participants Essentials of colocalization microscopy Colocalization game A. Seitz, EPFL R. Guiet, EPFL
12:00-13:30	Lunch
13:30-17:00	Image acquisition (widefield/spinning disk/confocal) A. Seitz, EPFL R. Guiet, EPFL Y. Belyaev, MIC Data analysis • Chromatic aberration correction • Deconvolution • Colocalization analysis A. Seitz, EPFL R. Guiet, EPFL Y. Belyaev, MIC Work with own data feedback