

Microscopy Imaging Center (MIC)

UNIVERSITÄT BERN

MIC Newsletter 09-10/2017

Faculty of Medicine VetSuisse Faculty Faculty of Science

Microscopy Imaging Center

Bern 6 November 2017

MIC Retreat

On **September 5, 2017**, the MIC members met at Schloss Bümpliz for the MIC Retreat. After lunch, we discussed the "Vision 2025" for future development of the MIC. A common tenor was the call for the MIC to be a SNF-recognized core facility. Also, all the MIC members agreed on the difficulties in covering maintenance costs of microscopes. A stimulating discussion was held on the possible usage of old microscopes in teaching: Against this idea was the argument of outdated software, in favor of this idea was the thought of the timeless physics of microscopy. Overall, this event was perfectly suited for discussions in a relaxed atmosphere and a common look at the MICs' future.

5th Swiss Microscopy Core Facility Day

On **September 14, 2017**, representatives of the Swiss Microscopy Core Facilities met in Fribourg, coorganized by members of the University of Fribourg and the Swiss Integrative Center for Human Health (SICHH). Yury Belyaev, Stefan Tschanz and Ruth Lyck represented the MIC, UniBE. Main topic of this event was the management of research data. Members of the SNSF presented the new guidelines for open access of research data and the newly required Research Data Management Plan for applications at SNSF. This presentation was followed by various short talks on specific issues regarding the particularly high amount of data acquired in high-end microscopy. In the afternoon, the SICHH invited the participants on a tour through their innovative building. There, the program continued with discussions in several focus groups. Topics were "Automation in Microscopy", "Teaching and Training in microscopy" and "Collaboration between Facilities". Summed up, this perfectly organized event improved networking between the Swiss Microscopy Core Facilities and raised awareness for research data management. The next meeting in 2018 will take place in Zurich.

Nacht der Forschung

On September 16, 2017, the University of Bern celebrated the Nacht der Forschung. The MIC contributed with various activities, organized by the coordinator Ruth Lyck, Urban Deutsch, Britta Engelhardt, Xenia Ficht, Daniel Hauser, Robert Rieben und Stefan Tschanz, each gave short talks about their research and linked their findings to the benefit and fascination of high-quality microscopy. An exhibition of historic microscopes, kindly provided by the Institute of Medical History, and of microscopic images, kindly provided by members of the MIC, decorated the seminar room and thus added to the enjoyable atmosphere of presentations. In parallel, the visitors had the opportunity to construct a simple microscope with their smart phone camera, using a glass bead and a holder. This activity proved to be very attractive: Under the supervision of Yury Belyaev, Ana Stojiljkovic and Daniel Hauser more than 150 microscopes with magnification of 100x and 300x were built and distributed. We also set up three binocular microscopes and a specimen preparation station. In addition, histological samples from the medicine basic education were presented. Specimen preparation and inspection through the microscope was highly attractive especially for children. Popular with all age groups were the histological samples. Pascal Ender, Ruth Lyck, Nora Ruef, Raphaela Seeger, Michael Stoffel and Stefan Tschanz guided and supervised sample preparation and microscopy. Mariana Dias, Martin Liptay, Anita Senk, Coralie Dessauges and other students of the PhD program Cutting Edge Microscopy, provided additional important support. Please see impressions of the MIC event at the Nacht der Forschung on our MIC Homepage.



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Presentations, Trainings, Workshops, Demonstrations

- upcoming events organized or recommended by the MIC

November 6 - 11, 2017

<u>Demonstration: LSM800, a confocal microscope from Zeiss, with Airyscan (link to Zeiss product Webpage)</u> at the Theodor Kocher Institute, Freiestrasse 1, 3012 Bern. Please contact Ruth Lyck (<u>e-mail</u>) for further information.

November 13, 2017

Seminar at the Institute of Cell Biology by Dr. Volker Hilsenstein, EMBL, Heidelberg. Title "Automated Feedback Microscopy: Implementation and Applications in Cell Biology". See also here.

November 20, 2017

Seminar at at the Institute of Cell Biology by Prof. Dr. Raphael Sznitman, Ophthalmic Technology Laboratory, ARTORG Center, University of Bern. Title "Reducing the Expert's Headache: Making the most of annotations for automatic biomedical image segmentation". See also here.

November 30, 2017

Thaining: Image analysis with KNIME. Information and registration is here.

December 8. 2017

MIC Symposium "Big Data in Light and Electron Microscopy". Further information, registration and pdf flyer on the MIC homepage here.

From January 2018, Bern

The University of Bern **Science IT Support (ScITS)** offers **data science training.** See the list of courses at www.scits.unibe.ch/training/internal_training. Contact hebba.zedan@math.unibe.ch.

Trainings, Workshops, Demonstrations - further recommended events

November 17, 2018, Basel

The FMI together with eulife is organizing a one-day course in "**Big microscopy data management**". This is a great opportunity to get familiar with all aspects of big data management (hardware, software, open source and commercial solutions) and to find out how big data is concretely handled in many different environments and research fields. The course is free of charge but registration is mandatory. Please find all other information here.

March 6 - 8. 2018. Berlin. Germany

10th European Short Course on "**Time-resolved Microscopy an Correlation Spectroscopy.** The course is intended for individuals wishing an in-depth introduction to the principles of time-resolved fluorescence microscopy and its applications to the Life Sciences. The event lasts three days and includes lectures in the morning and practical sessions in the afternoon. For further information and registration see here.

Next MIC Commission meeting

The next **MIC Commission meeting** will be <u>on Thursday December 14, 2017, at 1:15 pm</u>. Location: Institute of Anatomy, Seminar room, Bühlstrasse 26, 3012 Bern. This is a meeting of the MIC Commission members taking place 4x per year. Meeting dates are listed <u>here</u>.

Past MIC newsletters

<u>01/2017</u>; <u>02/2017</u>; <u>03-04/2017</u>; <u>05-06/2017</u>; <u>07-08/2017</u>.

