

Microscopy Imaging Center (MIC)

MIC Newsletter **03-04/2018**

Bern. 8 May 2018

UNIVERSITÄT BERN

Faculty of Medicine VetSuisse Faculty Faculty of Science

Microscopy Imaging Center

Lightsheet microscopy workshop at the Wyss Center

A <u>Lightsheet microscopy workshop</u> took place on March 19th and 20th 2018 at the <u>Wyss Center</u> at <u>Campus Biotech</u>, Geneva, Switzerland. More than 75 participants representing companies and scientific community from Switzerland and Europe discussed the topics relevant to light sheet microscopy. Yury Belyaev from MIC and a number of people from DBMR and ICB attended this meeting.

The first day focused on scientific presentations about system design, sample preparation and clearing methods, image and data processing. Particular attention was paid to handling and analysis of ultraterabyte data sets. The second day was centred on company presentations about commercial solution. In addition, an extensive poster session allowed sharing experiences and tips on sample preparation, imaging and data analysis. Thus, participants benefitted from networking with colleagues throughout Switzerland. Finally, the Wyss Center offered a visit of its imaging platform and demonstrated an inhouse customized light sheet system available to external users.

Visit of Nikon Imaging Center in Paris

On March 14th— 15th 2018, 14 PhD students of the Cutting Edge Microscopy program made a journey to Paris to visit the Nikon Imaging Center (NIC) at the Institut Curie and Institut Pasteur. Marlene Wolf, Yury Belyaev and Ruth Lyck accompanied the PhD students. In the morning of the 15th, presentations of specialists introduced the methodological spectrum ranging from multiphoton microscopy to structured illumination microscopy (SIM) and stochastic optical reconstruction microscopy (STORM). In the afternoon, workshops on exactly these techniques made a perfect complement to the presentations. Overall, the opportunity to gain insight into organization, special technical knowhow and equipment of the NIC was very valuable and rewarding for all the participants.

Presentations, Trainings, Workshops, Demonstrations – upcoming events at the University of Bern

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<u>Demonstration:</u> Nanolive 3D Cell Explorer fluo. Super resolution, tomography, label-free, long term live cell imaging. More information about the instrument <u>here</u>. Please contact <u>Yury Belyaev</u> if you are interested in participation or organization.

May 24 - 25, 2018

<u>Training:</u> Feedback microscopy workflows. Feedback microscopy is a powerful tool to run complex imaging experiments. The focus of this training will be on the basic concept of feedback microscopy. More information here.

June 12 - 13, 2018

<u>Workshop:</u> Conventional fluorescence microscopy, laser scanning microscopy and digital image processing at DBMR. KSL number <u>12284</u>. More information <u>here</u>.

June 21, 2018

<u>Training: Light Sheet Microscopy for *in vivo* imaging.</u> More information <u>here</u>.

July 4, 2018

MIC Research Day. This internal event organized by the MIC aims at interconnecting Life Science researchers from the University of Bern who use microscopy as a significant experimental tool. The MIC



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Research Day will take place at Länggassstrasse 122, Hörsaal Paraklinik, room 303, in the afternoon of July 4, 2018. This year's speakers are listed on the MIC homepage here. Please register early, as the number of participants is limited. A detailed program will be published soon.

July 4 – 6, 2018

<u>Summer School</u>, PhD Students of the Cutting Edge Microscopy (CEM) program. Please note that the MIC research day is part of the summer school. A detailed program will be sent to the students and published on the MIC homepage soon.

September 18, 2018

<u>Training:</u> Basics of confocal microscopy. More information <u>here</u>.

November 30, 2018

<u>MIC Symposium.</u> This year's topic is "From Organoids to Organisms – Multiscale imaging". The speakers of the MIC Symposium are listed on the MIC homepage here.

Trainings, Workshops, Demonstrations - further recommended events

Mai 26, 2018, Fribourg, Switzerland

Professor Barbara Rothen, member of the MIC commission, cordially invites you to the Adolphe Merkle Institute (AMI). As part of this year's Museum Night in Fribourg, AMI will open its doors to the public, presenting ongoing research and other activities. Daniel Hauser, PhD student of the Cutting Edge Microscopy program offers a special presentation at a confocal microscope. This is also an opportunity to celebrate the 10th anniversary of the AMI. This event will take place on Saturday, May 26, between 18:00 and midnight. The theme this year is "Time". More information can be found on the AMI's homepage here.

June 5 - 8, 2018, Dublin, Ireland

18th meeting of the European light microscopy initiative (elmi) takes place at the University College in Dublin. More information can be found here.

June 19 - 24, 2018, Zürich, Switzerland

Zurich Image and Data Analysis School (ZIDAS). More information see https://2018.zidas.org/.

September 3 – 14, 2018, Zürich, Switzerland

12th Zurich Summer School on Biomedical Imaging. The school is dedicated to teaching the basics alongside a wide context of biomedical usage and application that is vital in understanding recent advances and current challenges in biological and medical imaging. More information see www.excite.ethz.ch.

September 12 - 14, 2018, Berlin-Adlershof, Germany

24. International Workshop on "Single Molecule Spectroscopy and Super-resolution Microscopy in the Life Sciences". Deadline for abstract submission is May 31. Details and more information see www.single-molecules.org.

October 16 - 19, 2018, Edinburgh, UK

NEUBIAS, the Network of European Biolmage Analysts (www.neubias.org), offers a training school on Biolmage Analysis for Early Career Investigators in life sciences. Application deadline is May 11, 2018. More information here.

November 5 - 7, 2018, Heidelberg, Germany

"Labeling & Nanoscopy 2018" aims at bringing together experts in fluorescence and labeling chemistry with those designing and applying new concepts of far-field optical nanoscopy. This meeting will take place in the German Cancer Research Center in Heidelberg. More information can be found here.

Next MIC Commission meeting

The next MIC Commission meeting will be held on Thursday, May 17 at 1:15 pm.

Location: Institute of Anatomy, Seminar room, Bühlstrasse 26, 3012 Bern. This is a quarterly meeting of the MIC Commission members. Meeting dates are listed here.

Previous MIC newsletters are available to you for download here.

