

MIC Newsletter
05-06/2017

Faculty of Medicine
VetSuisse Faculty
Faculty of Science

Microscopy Imaging Center

Bern, 18 June 2017

Report on the 17th International European Light Microscopy Initiative (ELMI 2017) Symposium

The 17th International European Light Microscopy Initiative Meeting (<http://www.elmi2017.eu/>) took place on May 23-26, 2017 in Dubrovnik, Croatia. About 300 participants from Europe and the rest of the world discussed recent advances in light and electron microscopy applied to life sciences. During the first day, representatives of the European light microscopy facilities had the chance to exchange their experiences such as research in core facilities, maintenance and quality control of equipment, sample preparation and identification of new imaging technologies. During the following 3 days the latest scientific results in intravital microscopy, light microscopy in biophysics and biology, multimodal, mesoscopic and light sheet microscopy, image processing and analysis were presented and discussed. Additionally to the extensive scientific program, 40 leading microscopy companies introduced cutting-edge technical developments in the workshops and booth presentations. Yury Belyaev represented the MIC with the poster 'Gold nanoparticles for accurate measurement of PSF in wide spectral range' describing a work performed together with Natalie and Thomas Nevian from the Institute of Physiology.

Presentations, Trainings, Workshops, Demonstrations – upcoming events organized by the MIC

June 28 – 30, 2017

MIC Summer School, compulsory for PhD students registered to the [PhD specialization Cutting Edge Microscopy](#). For further information please contact PD Dr. [Marlene Wolf](#).

June 28, MIC Research Day. See below.

June 29, CEM Summer School 2017 PhD student day - "Kick-Off event". Registration via [KSL 433758](#).

June 30, Workshop. Preparing images for publication and presentation. Registration via [KSL 433659](#).

June 28, 2017 (afternoon)

MIC Research Day. This half-day MIC event shows a selection of research executed at our microscopes and is presented by our young colleagues who are specialists in a specific method and/or instrument. The presenters are instructed to also give an overview on the range of additional applications. We aim to interconnect researchers already applying microscopy with other researchers that might want to use the same instrument or a similar technique with another microscope. Further, we will have one industry talk presenting microscopy light sources – one issue often underestimated in its importance. Please schedule additional time after the talks for individual discussions and the MIC Apéro. Program, poster and abstract booklet can be accessed [here](#). **The cantonal veterinary office of Bern has approved attendance of the MIC Research Day as 0.5 days continued education in animal experimentation.** We highly recommend your speedy registration [here](#) –80 % of seats are already taken.

June 30, 2017

Workshop. Preparing images for publications and presentations (0.5 ECTS).

Dr. Dimitri Vanhecke, University of Fribourg, will provide an insight into scientifically correct image preparation for publications and presentations. Further information is available on the MIC webpage ([Workshops](#)). [Downloadable pdf](#). Registration via [KSL 433659](#).



July 10, 2017, 11 - 12 am.

Seminar (Institute of Cell Biology): Christian Tischer, EMBL Heidelberg, will talk on visualization, registration and tracking of big image data. Detailed information is [here](#).

July 11, 2017

Training. Basics of ImageJ/FIJI macro programming language. FIJI script editor. Writing, installing and running macros. Work on own data sets. Further information is available [here](#).

August 21 – 22, 2017

Workshop. Conventional fluorescence microscopy, laser scanning microscopy and digital image processing (1.0 ECTS). PD Dr. Fabian Blank. Further information is available [here](#).

September 06-07, 2017

Training. Basics of wide field microscopy. Basics of fluorescence. Filters and light sources. Cameras and digital imaging. Upgrade to Workshop: PhD students can gain 1.0 ECTS from this course by giving a presentation on their individual application of learning outcome. Further information and registration [here](#).

September 16, 2017 (from 4 pm)

Nacht der Forschung. The Institute of Anatomy, the Institute of Physiology and the MIC will jointly prepare activities and presentations in shared rooms at UniS. we will organize a colorful panel of activities with an active contribution of the PhD students in “*Cutting Edge Microscopy*”.

Urgent request to all MIC members:

Please [nominate candidate speakers for short presentations](#) of 5 to 10 minutes intended to impress the interested audience with the power and fascination of microscopy. We highly appreciate your recommendations until July 7, 2017.

September 19-20, 2017

Training. Basics of confocal and 2-photon microscopy. Lasers. Live cell imaging. Deconvolution. Upgrade to Workshop: PhD students can gain 1.0 ECTS from this course by giving a presentation on their individual application of learning outcome. Further information and registration [here](#).

Demonstrations at UniBE - on request (mail to [Dr. Yury Belyaev](#))

Livecyte (www.phasefocus.com)

This is a machine designed for high contrast quantitative imaging and analysis of living non-stained cells. The software included provides morphological, temporal, and dynamic phenotypic data. If necessary, the phase imaging can be combined with fluorescence.

STEDYCOM (www.abberior-instruments.com)

Compact of-the-shelf STED add-on, which is compatible with most microscope brands. It converts conventional epifluorescence microscope within an hour into powerful multicolor confocal and STED system. Easy to use comprehensive software.

Trainings, Workshops, Demonstrations - recommended external events

September, 04 – 08, 2017. EPFL, Lausanne, Switzerland.

Microscopy course “Advanced Light-Microscopy for Life science”. Further information and registration [here](#).

September 5 – 7, 2017. Stockholm, Sweden.

Tissue clearing and 3D Imaging course at the Hökfelt Lab, Karolinska Institute, Department of Neuroscience. Supported by Bitplane and LaVisionBioTec. Number of participants is limited to 15; registration via [downloadable form](#) until July 15, 2017. [Poster](#).



September 13 – 15, 2017. Berlin, Germany.

[23. International Workshop on "Single Molecule Spectroscopy and Super-resolution Microscopy in the Life Sciences"](#). Organized by [PicoQuant](#), Berlin, Germany.

Recommended Websites

[Network of European bioimage analysts \(neubias\)](#)

Next MIC Commission meeting

MIC Commission members meet on Thursday August 10, 2017, at 1:15 pm.

Location: Institute of Anatomy, Seminar room, Bühlstrasse 26, 3012 Bern. This is an internal meeting of the MIC Commission members taking place 4x per year. Meeting days are listed [here](#).

Past MIC newsletters

[MIC newsletter 01/2017](#); [MIC newsletter 02/2017](#); [MIC newsletter 03-04/2017](#)

