WORKSHOP on Introduction to Correlative Light and Electron Microscopy

Place    Auditorium F202 and BCO Light Microscopy Core Facility Laboratories, the Main Building of the Medical Campus, University of Oulu, Aapistie 5A, 90220 Oulu, Finland

Time    27th to 28th May, 2015

Credits    1 ETCS

Organisers    Biocenter Oulu Doctoral Programme and Biocenter Oulu Tissue Imaging Center, University of Oulu, Aapistie 5A, P.O.Box 5000, FIN-90014 University of Oulu, Finland, URL: http://www.oulu.fi/biocenter/tic

Aim    To get acquainted with confocal fluorescence microscopy methods combined with correlative imaging of the same samples in a scanning electron microscope.

Information    Veli-Pekka Ronkainen, Biocenter Oulu, tel. +358 294 486114, e-mail: veli-pekaronkainen@oulu.fi and Ilkka Miinalainen tel +358 294 6145 e-mail ilkka.miinalainen@oulu.fi. The course consists of lectures and microscopy demonstrations.

Registration    Lectures are open for all without registration. Registration for the demonstrations is obligatory and preference will be given to Ph.D. students and researchers whose project benefits the topics carried out during the course. Due to space limitations only 18 participants can be accepted.

Registrations including a short description of the applicant’s project should be submitted online no later than 18th of May 2015 via this link: https://www.webropolsurveys.com/S/35417DC3E00CEEF7.par
PROGRAMME

Wednesday, May 27th, 2015. Auditorium F202 (Pharmacology), The Main Building of the Medical Campus, Aapistie 5A

Lectures:

9.00-9.05 Opening words and introduction. Raija Sormunen, Biocenter Oulu, University of Oulu
9.05 - 10.00 Light Microscopy. Veli-Pekka Ronkainen, Biocenter Oulu, University of Oulu
10.00-11.00 Electron Microscopy. Ilkka Miinalainen, Biocenter Oulu, University of Oulu
11.00-12.00 Lunch Break
12.00-13.00 Bridging the gap: linking structure to function using correlative and integrated microscopy. Christopher Peddie, The Francis Crick Institute, London, UK
13.00-14.00 New applications for 3D SEM. Eric Hummel, Carl Zeiss, Germany
14.00-14.30 Coffee break

Demonstration:

14.30-16.30 First demonstrations. Three working groups, Veli-Pekka Ronkainen, Ilkka Miinalainen, Raija Sormunen, University of Oulu

Demonstration 1. Laser scanning confocal microscopy and Shuttle and Find, Room 421A: Veli-Pekka Ronkainen, Biocenter Oulu

Demonstration 2. Specimen preparation, Room EM laboratory: Raija Sormunen, Biocenter Oulu

Demonstration 3. Scanning electron microscopy and Shuttle and Find, Room 320A: Ilkka Miinalainen, Biocenter Oulu and Michael Andersson, Zeiss

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Thursday, June 28th, 2015. Auditorium F202 (Pharmacology) and BCO Kieppi laboratories, The Main Building of the Medical Campus, Aapistie 5A

Lecture:

9.00-10.00 3D Correlative Light and Electron Microscopy. Roger Wepf, Scientific Center for Optical and Electron Microscopy (ScopeM), ETH Zurich, Switzerland

Demonstrations:

10.00-15.00 Demonstrations continue, 3 groups

Demonstration 1. Laser scanning confocal microscopy and Shuttle and Find. Room 421A:
Veli-Pekka Ronkainen, Biocenter Oulu

Demonstration 2. Specimen preparation. Room EM laboratory:
Raija Sormunen, Biocenter Oulu

Demonstration 3. Scanning electron microscopy and Shuttle and Find. Room 320A:
Ilkka Miinalainen, Biocenter Oulu and Michael Andersson, Zeiss

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15.00 Summary and conclusions. BCO 4th floor Seminar Room 487B