



UNIVERSITY of OULU  
OULUN YLIOPISTO



## 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** 27<sup>th</sup> to 28<sup>th</sup> 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-pekka.ronkainen@oulu.fi](mailto:veli-pekka.ronkainen@oulu.fi) and Ilkka Miinalainen tel +358 294 6145 e-mail [ilkka.miinalainen@oulu.fi](mailto: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 18<sup>th</sup> of May 2015 via this link: <https://www.webropolsurveys.com/S/35417DC3E00CEE7.par>

# **PROGRAMME**

**Wednesday, May 27<sup>th</sup>, 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

Hours	1 <sup>st</sup> group	2 <sup>nd</sup> group	3 <sup>rd</sup> group
14.30-16.30	Demonstration 1	Demonstration 2	Demonstration 3

**Thursday, June 28<sup>th</sup>, 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

Hours	1 <sup>st</sup> group	2 <sup>nd</sup> group	3 <sup>rd</sup> group
10.00-12.00	Demonstration 2	Demonstration 3	Demonstration 1
12.00-13.00	Lunch	Lunch	Lunch
13.00-15.00	Demonstration 3	Demonstration 1	Demonstration 2

15.00 *Summary and conclusions.* BCO 4<sup>th</sup> floor Seminar Room 487B