



17th ELMI MEETING 2017 – DETAILED PROGRAM

DAY 1 Tuesday, 23.5.	
09:00-13:00 CORE FACILITY SESSION I	9:00 - 10:30 Research at Core Facilities - Panel discussion Chair Alison North (Rockefeller) Panel: Karin Aumayr (IMP Vienna) Hella Hartmann (CRTD Dresden) Stephen Firth (Monash University, Melbourne) Stefanie Weidtkamp-Peters (University of Düsseldorf) Elisa May (University of Konstanz) 10:30-11:00 Coffee Break 11:00 - 12:30 Maintenance / quality control Chair: Arne Seitz (EPFL) / online Laure Plantard (University of Copenhagen) Introduction talks by: <ul style="list-style-type: none"> ● Roland Nitschke (University of Freiburg) ● Alison North (Rockefeller) ● Sebastian Munck (VIB Leuven) 12:30 - 13:00 Flash talks selected from community suggestions
13:00-13:45 Lunch	
14:00-15:00 Football Match	
sponsored by 	
15:30-18:00 CORE FACILITY SESSION / PART 2	15:30 - 17:15 Sample preparation Chair: Stefan Terjung Introduction talks by: Oliver Biehlmaier (Biocenter, Basel) Sebastian Bundschuh (MPI CBG, Dresden) Evgenia Platonova (University of Zürich) 17:15 - 17:30 Break 17:30 – 17:50 Identifying new technologies - Timo Zimmermann (CRG, Barcelona) 17.50-18.00 Wrap-up
18:30-18:45 Opening Ceremony	
18:45-19:45 Keynote Lecture	John S. Condeelis: Multiphoton intravital imaging at single cell resolution reveals mechanisms of cancer dissemination and markers for prognosis and treatment of breast cancer patients
20:00-23:00 Welcome Party	
sponsored by 	

DAY 2

Wednesday, 24.5.

09:00-11:00 INTRAVITAL MICROSCOPY	09:00-09:25 Peter Friedl: Monitoring plasticity of cancer invasion and metastasis 09:25-09:50 Jacky G. Goetz: Tracking tumor metastasis at multiple scales using intravital correlative microscopy 09:50-10:15 Leonardo Sacconi: Advanced optical methods for monitoring and controlling the cardiac electrical activity 10:15-10:40 Frédéric Louradour: Multimodal multiphoton endomicroscopy 10:40-10:50 Sonia Voiculescu: A permanent lung imaging window reveals, for the first time for spontaneous metastasis, the steps of extravasation, seeding and growth of early metastatic lesions 10:50-11:00 Philipp Tripal: Three dimensional live cell imaging of intestinal organoid structures by spinning disc microscopy
11:00-11:30 Coffee Break	
11:30-13:30 MULTIMODAL, MESOSCOPIC AND LIGHT-SHEET MICROSCOPY	11:30-11:55 Gail McConnell: The Mesolens: a giant colour-corrected microscope objective lens for sub-cellular 3D resolution imaging within 118 cubic millimetres of tissue 11:55-12:20 Alberto Diaspro: Tunable and multimodal optical microscopy 12:20-12:45 Pavel Tomancak: Microscopy and image analysis for modern developmental biology 12:45-13:10 Loic A Royer: Adaptive light-sheet microscopy for long-term, high-resolution imaging in living organisms 13:10-13:20 Jim Swoger: Mesoscopic bio-imaging with OPTiSPiM 13:20-13:30 Paolo Bianchini: Expansion and STED Nanoscopy a new tool for nanoscale studies
13:30-15:00 Lunch	
15:00-16:00 WORKSHOP 1	
16:00-16:30 Coffee Break	
16:30-17:30 WORKSHOP 2	
17:30-18:30 WORKSHOP 3	
18:30-20:00 Poster session & refreshments	

DAY 3 Thursday, 25.5.	
09:00-10:35 SPECIMEN PREPARATION AND ANALYSIS	09:00-09:25 Hiroki Ueda: Whole-body and whole-organ clearing and imaging with single-cell resolution 09:25-09:50 Stephen Gentleman: Opening up the archives: Next generation three-dimensional histology for human brain tissue 09:50-10:15 Rainer Kaufmann: Super-resolution fluorescence cryo-microscopy in vitrified biological samples 10:15-10:25 Pedro M. Pereira: A new generation of tunable photoswitching probes for live cell super-resolution microscopy 10:25-10:35 Frederic Berndt: Non-contact 3D sample orientation for microscopy 10:35-10:45 Erik Manders: New modalities in Re-scan Confocal Microscopy (RCM)
10:45-11:00 Euro-Biolmaging Session	Jan Ellenberg: Euro-Biolmaging - One year into Interim Operation
11:00-11:30 Coffee Break	
11:30-13:30 LIGHT MICROSCOPY IN BIOPHYSICS	11:30-11:55 Stephan Grill: Physics of actomyosin-based morphogenetic processes 11:55-12:20 Ben Fabry: Cell traction microscopy in 3-dimensional biopolymer matrices 12:20-12:45 Ana Sunčana Smith: Membrane fluctuations mediate lateral interactions between cadherin bonds 12:45-13:10 Nenad Pavin: The mitotic spindle is chiral due to torques generated by motor proteins 13:10-13:20 Yvan Eilers: MINFLUX tracking of fluorescent molecules 13:20-13:30 Jan Schmoranzler: Optimization and application of registration free multicolor DSTORM based on spectral demixing
13:30-15:00 Lunch	14:30-16:30 Euro-Bioimaging Meeting Location: Hotel Argosy
15:00-16:00 WORKSHOP 4	
16:00-16:30 Coffee Break	
16:30-17:30 WORKSHOP 5	
17:30-18:30 WORKSHOP 6	17:30-18:30 ELMI Coordinating Committee Meeting Location: Hotel Argosy
19:30 Social Event & Gala Dinner	

DAY 4
Friday, 26.5.

09:00-10:50
IMAGE PROCESSING AND ANALYSIS

09:00-09:25
Carolina Wählby: Digital image analysis in microscopy; hierarchical approaches for sparse data of cells, model organisms and tissue
09:25-09:50
Till Bretschneider: QuimP software for analysing cellular morphodynamics
09:50-10:15
Ivica Kopriva: Novel methods for segmentation and enhancement of the images of histopathological specimens
10:15-10:40
Julien Colombelli: BioImage Analysts paving their way... towards bioimage analysis facilities?
10:40-10:50
Sian Culley: SRRF: ImageJ based live-cell high-speed low-illumination super-resolution microscopy

10:50-11:20
Coffee Break

11:20-13:30
LIGHT MICROSCOPY IN BIOLOGY

11:20-11:30
Ana Agostinho: New insights into the regulation of mammalian meiosis revealed by Super-Resolution Microscopy
11:30-11:55
George Sirinakis: Ultra-High isotropic resolution imaging throughout whole cells using 4Pi-SMSN
11:55-12:20
Yaron Shav-Tal: Characterizing mRNA export at high resolution in individual nuclear pores in single cells
12:20-12:45
Jozef Šamaj: Advanced plant bioimaging by super-resolution and light-sheet microscopy
12:45-13:10
Helder Maiato: High spatial and temporal resolution analysis of mitosis in Indian muntjac, the mammal with the lowest known chromosome number ($n=3$)
13:10-13:20
Kruno Vukušić: Mechanism of chromosome segregation in human cells revealed by laser microsurgery and photoactivation
13:20-13:30
Antonio Politi: Quantitative mapping of endogenously fluorescently tagged proteins using FCS-calibrated four dimensional live cell imaging

13:30-13:45
Closing Remarks

13:45-15:00
Lunch