

IbSB 2016 Program

Thursday 29 September

11.30 Registration opens

12.30 Lunch

13.00 Opening

Session I: High-Resolution Microscopy

13.10-13.50 Ernst Stelzer, Goethe University Frankfurt, Germany

Light Sheet-based illumination provides the basis for highly corrected, sensor-based and fully automated microscopy

13.50-14.10 Zoltan Cseresnyes, German Rheumatism Research Center Berlin, Germany

Striped Illumination Microscopy with an enhanced iterative processing algorithm provides a novel high-resolution deep-tissue imaging technique

14.10-14.30 Ronny Förster, Friedrich Schiller University Jena, Germany

Motion Artefact Detection in Structured Illumination Microscopy

14.30-15.10 Coffee break

Session II: Quantitative Bioimage Analysis

15.10-15.50 Jean-Christophe Olivo-Marin, Institut Pasteur, France

Quantitative Bioimage Analysis: from cell to numbers

15.50-16.30 Katrin Heinze, University of Würzburg, Germany

Robust spatiotemporal analysis of cell-vessel interplay in large tissue specimen

16.30-16.50 Leena Latonen, University of Tampere, Finland

Feature based comparison of normal tissue and early pathological lesions in histological images of mouse prostate cancer models

16.50-17.10 Sabine Fischer, Goethe University Frankfurt, Germany

Three-dimensional cell-graph analysis reveals distinct spatial patterns of the fate markers NANOG and GATA6 in mouse pre-implantation embryos

17.30 Poster session and barbecue

Friday 30 September

Session III: Cell Dynamics: Motility and Morphology I

09.00-09.40 **Erik Meijering**, Erasmus University Medical Center,
Rotterdam, The Netherlands

Model-Based Bioimage Analysis of Cell Shape and Motion

09.40-10.00 **Stefanie Dietrich**, Friedrich Schiller University Jena, Germany

*Migration and Interaction Tracking for Quantitative Analysis
of Phagocyte-Pathogen Confrontation Assays*

10.00-10.20 **Feng Wei Yang**, University of Sussex, United Kingdom

*A computational analysis framework for cellular and nuclear
dynamics driven by experiments*

10.20-11.00 *Coffee break*

Session IV: Cell Dynamics: Motility and Morphology II

11.00-11.40 **Johannes Textor**, Radboud University Medical Center,
Nijmegen, The Netherlands

*MotilityLab:
Storing, Sharing, and Analyzing Immune Cell Migration Data*

11.40-12.00 **Michael Haberl**, University Medical Center Göttingen, Germany

*T cell and myeloid cell motility at the BBB:
a mathematical approach to understand inflammatory processes*

12.00-13.00 *Lunch break*

Session V: Image-derived Modeling

13.00-13.40 **Niels Grabe**, National Center for Tumor Diseases, Heidelberg, Germany

*Wound healing revised: A novel reepithelialization mechanism
revealed by in vitro and in silico models*

13.40-14.00 **Alvaro Gomariz**, ETH Zürich, Switzerland

*Applying 3D quantitative microscopy to study global topography
and cellular interactions in the bone marrow*

14.00-14.20 **Philip Kollmannsberger**, University of Würzburg, Germany

*Spatiotemporal mapping of proliferation and extracellular matrix
stretch during microtissue growth under geometric confinement*

14.20-14.40 **Christine Lang**, ETH Zürich, Switzerland

Image-based Modeling of Organogenesis

14.40 *Closing*