

## Program

### WEDNESDAY, 19 / SEP / 2018

**9:00-12:00** Institute of Immunology // Tutorial "Presentation and Demonstration of Flow Cytometers" // Nico Andreas // Institute of Immunology / Jena, Germany

**10:00-12:00** Center for Applied Research // Tutorial "Raman Microspectroscopy – a New Tool for Cultivation-free Pathogen Identification" // Petra Rösch // Institute for Physical Chemistry / Jena, Germany

#### 12:00-13:00 FOYER // WELCOME & REGISTRATION

**13:00-14:30** Lecture Hall 3 // Nanotechnology Session // Chair: Wolfgang Fritzsche, Chair: Ulrike Taylor

**13:00-13:15** Opening // Wolfgang Fritzsche // Leibniz Institute of Photonic Technology / Germany

**13:15-14:00** Molecular Imaging of Cancer Cells with Ultra-small 5 nm Gold Nanoparticles // Konstantin Sokolov // M. D. Anderson Cancer Center / United States of America

**14:00-14:30** How to Re-activate Antibiotic Efficacy in Biofilm-associated Lung Infections by Nanoparticles // Julia Ernst // Friedrich Schiller University Jena / Germany

**14:30-15:30** Lecture Hall 3 // Product Slam // Chair: Frank Schildberg, Chair: Elmar Endl

#### 15:30-16:30 FOYER // COFFEE BREAK & INDUSTRY SESSION

**16:30-18:00** Lecture Hall 3 // Cutting Edge Session // Chair: Hyun-Dong Chang

**16:30-17:00** Light Sheet for the Masses // Emmanuel Reynaud // UCD Centre for Biomedical Engineering / Ireland

**17:00-17:20** Luminescence Lifetime Encoding in Flow Cytometry – First Steps and Assessment // Daniel Kage // Bundesanstalt für Materialforschung und -prüfung (BAM)

**17:20-17:40** Advanced Imaging Flow Cytometry // Andreas Kleiber // Leibniz Institute of Photonic Technology / Germany

**17:40-18:00** Opto Biolabs – Combining Optogenetics with Flow Cytometry // Kathrin Brenker<sup>1,2</sup> // 1: Opto Biolabs, Germany, 2: Albert-Ludwigs-Universität Freiburg

**18:00-19:00** Lecture Hall 3 // Keynote // Sepsis – Changing the Paradigm // Michael Bauer // Jena University Hospital, Germany // Chair: Thomas Kamradt

#### 19:00-22:00 FOYER // WELCOME RECEPTION AT INDUSTRY EXHIBITION

**20:00-21:00** Seminar Room 131 // Tutorial "Scientific Publication with Special Aspects for Cytometry Part A" // Attila Tárnok // University of Leipzig / Germany

**20:00-22:00** Seminar Room 113 // Core Facility Networking Event // Chair: Desiree Kunkel, Chair: Steffen Schmitt

**20:00-20:15** Users Sorting on High Speed Sorters in a Shared Resource Environment: Effects of a Well Balanced Sorter Training // Claudia Dumrese // University of Zurich / Switzerland

**20:15-20:30** Open IRIS – an Open Source Resource Management Tool Implemented at the University of Mainz // Stefanie Bürger // IMB / Germany

**20:30-20:45** Messenger Apps Facilitate Group Communication: Introduction to Slack // Christian Kukat // Max Planck Institute for Biology of Ageing / Germany

### THURSDAY, 20 / SEP / 2018

**9:00-10:30** Lecture Hall 3 // NEW! Core Facility Session: Reproducibility in Flow Cytometry // Chair: Desiree Kunkel, Chair: Frank Schildberg

**9:00-9:30** Validation and Standardization of Flow Cytometry Based Immune Monitoring in Clinical Trials // Mathias Streitz // Institute for Medical Immunology, Charité / Germany

**9:30-10:00** A Novel Method for Flow Cytometer Characterization by Determination of Detector Background, Signal-to-noise, and Dynamic Range // Claudia Giesecke // Deutsches Rheuma-Forschungszentrum Berlin / Germany

**10:00-10:15** Minimal Requirements for the Presentation of Flow Cytometry Data // Steffen Schmitt // German Cancer Research Center (DKFZ) / Germany

**10:15-10:30** cytometry.de – the Communication Platform of the DGfZ // Elmar Endl // University Bonn / Germany

#### 10:30-11:00 FOYER // COFFEE BREAK & POSTER SESSION

- 11:00-12:30** Lecture Hall 3 // Hungarian Guest Session: Hungary // Chair: Gergely Toldi, Chair: Wolfgang Fritzsche
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- 11:00-11:30** Immunophenotyping of Treatment Naive Patients with Systemic Autoimmune Diseases by Single Cell Mass Cytometry // Gábor Szebeni // Hungarian Academy of Sciences / Hungary
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- 11:30-12:00** Targeting the HER2 Oncoprotein: Lessons Learned from Quantitative Cytometry // György Veréb // University of Debrecen / Hungary
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- 12:00-12:30** The Effect of Microenvironmental Factors on the Development of Myeloma Cells // Gábor Barna // Semmelweis University, Hungary / Hungary

**12:30-13:30** Lecture Hall 3 // Poster Pitch & Poster Session

**13:30-14:30** FOYER // LUNCH & POSTER SESSION

- 14:30-16:00** Lecture Hall 3 // Klaus-Goerttler-Session // Chair: Julia Reinhardt, Chair: Wolfgang Fritzsche
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- 14:30-15:00** Deformability Cytometry and 1D Fluorescence Imaging in Real-time // Philipp Rosendahl // TU Dresden / Germany
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- 15:00-15:20** NKT Cells Promote Alternative Cross-priming in two Distinct Phases // Christoph Heuser // Technical University of Munich / Germany
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- 15:20-15:40** Alternative Splicing: An Alternative Level of NLRP3 Inflammasome Regulation // Florian Hoss // University of Bonn / Germany
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- 15:40-16:00** Metabolic Regulation of ILC Mediated Barrier Protection and Pathology // Christoph Wilhelm // University Hospital Bonn / Germany

**16:00-17:00** Foyer // Poster Session

**17:00-18:00** Lecture Hall 3 // Guest Lecture – Early Precursors of Fluorescence Cytometry: Foundation of Cell Theory and Fluorescence Microscopy // Timo Mappes // Deutsches Optisches Museum / Germany // Chair: Wolfgang Fritzsche

**18:00-19:30** Lecture Hall 3 // Members Assembly

**19:30-22:30** Zeiss Planetarium // Social Event & Conference Dinner

**FRIDAY, 21 / SEP / 2018**

**9:30-11:00** Lecture Hall 3 // Microbiology Session // Chair: Christin Koch, Chair: Stephan Schmid

**9:30-10:00** Molecular Diagnostic in the Age of Multiresistant Gram-negative Bacteria // Oliwia Makarewicz // University Hospital Jena / Germany

**10:00-10:20** Raman Spectroscopic Cytometry for the Detection and Characterization of Bacterial Infection // Astrid Tannert // Leibniz IPHT / Germany

**10:20-10:40** Who am I and if Yes, How many? A new Way of Phytoplankton Species Identification by Combination of Image Cytometry and Deep Learning // Susanne Dunker // Helmholtz-Centre for Environmental Research – UFZ / Germany

**10:40-11:00** Microfluidic System for Single-cell Analysis in Picoliter-sized Batch Bioreactors // Eugen Kaganovitch // Forschungszentrum Jülich GmbH / Germany

**11:00-11:30** FOYER // COFFEE BREAK

**11:30-13:00** Lecture Hall 3 // Microscopy Session // Chair: Anja Hauser, Chair: Raluca Niesner

**11:30-12:00** histoCAT: Analysis of Cell Phenotypes and Interactions in Multiplex Image Cytometry Data // Denis Schapiro // University of Zurich / Switzerland

**12:00-12:30** Super-resolution Microscopy: Challenges and Potentials in Biomedical Research // Christian Eggeling // Leibniz Institute of Photonic Technology / Germany

**12:30-12:45** Histo Cytometry using Multi Epitope Ligand Cartography (MELC) // Ralf Köhler // Immunodynamics, German Rheumatism Research Center, Berlin / Germany

**12:45-13:00** Lecture Hall 3 // uC2 – An Open-Source Optical Toolbox for Multi-Modal Imaging in the Incubator // Benedict Diederich // Leibniz IPHT / Germany

**13:00-14:00** FOYER // FAREWELL & SNACKS