









# LIFE MEETS LIGHT PROGRAMME

**Wednesday, September 5<sup>th</sup>, 2018**

08:00	Registration	
09:00	Welcome by the Speaker of the LSC InfectoOptics <i>Bernhard Hube, Leibniz-HKI</i>	
09:05	Fluidics and photons: Towards ultra-high-throughput experimentation <i>Andrew DeMello, ETH Zurich</i> Session Chair: <i>Miguel Tovar, Leibniz-HKI</i>	
09:50	Optofluidic approaches for multiparametric analysis of microbiological samples <i>FastDrop: Sundar Henggoju, Shulin Wohlfeil, Anne-Sophie Munser, Leibniz-HKI, Fraunhofer-IOF</i>	
10:20	Illuminating microbial dark matter in the macro- and microscale <i>DarkMicro: Lisa Mahler, Patricia Geesink, Leibniz-HKI, FSU Jena</i>	
10:50	Coffee break	
11:10	Microfluidics against antibiotic resistant bacteria <i>Piotr Garstecki, Polish Academy of Sciences [PAN]</i> Session Chair: <i>Oksana Shvydkiv, Leibniz-HKI</i>	
11:55	Lung-on-a-chip microtechnologies for studies of host-pathogen interactions in tuberculosis <i>Vivek Thacker, Ecole Polytechnique Federale de Lausanne [EPFL]</i>	
12:15	Emulating the gut-liver-axis - organ-on-chip as translational tool in sepsis research <i>Alexander Mosig, JUH</i>	
12:35	Lunch	
13:35	Towards self searching TEM for virus diagnostics <i>Ida-Maria Sintorn, Uppsala University</i> Session Chair: <i>Marc Thilo Figge, Leibniz-HKI</i>	
14:20	Combining whole-blood infection assays with live-cell imaging to identify morphokinetic parameters for infection classification <i>BLOODi: Ivan Belyaev, Alessandra Marolda, Leibniz-HKI</i>	
14:50	Image-derived identification of antibiotic resistances in <i>E. coli</i> strains <i>Nairveen Ali, Ute Neugebauer, FSU Jena</i>	
15:20	Coffee break	
15:40	Interaction between lipid membranes and pore-forming peptides <i>Thomas Gutschmann, Research Center Borstel</i> Session Chair: <i>Bernhard Hube, Leibniz-HKI</i>	
16:25	The effect of Candidalysin on lipid membranes investigated by tip-enhanced raman scattering and atomic force microscopy <i>HoT-Aim: Xiaobin Yao, Selene Mogavero, Leibniz-IPHT, Leibniz-HKI</i>	
16:55	Holographic region-of-interest illumination with oblique angles <i>HoT-Aim: Alexander Jügl, Leibniz-IPHT</i>	
17:15	The <i>Pseudomonas aeruginosa</i> lectin LecB manipulates epithelial host cell polarity to enhance bacterial infection <i>Roland Thuenauer, University of Freiburg</i>	
17:35	Role of lipid transfer from host cells to <i>S. aureus</i> during chronic infection and consequences for host immune response <i>Lipstaph: André Gollowitzer, FSU Jena</i>	
18:00	Poster session + Buffet	

## Thursday, September 6<sup>th</sup>, 2018

09:00	New insights into the intracellular life style of the zoonotic pathogen <i>Brucella</i> <i>Christoph Dehio, University of Basel</i> <i>Session Chair: Rainer Heintzmann, Leibniz-IPHT / JUH</i>	
09:45	Non-invasive, photonic deciphering of intracellular infections in a cell-culture model <i>IntraInf: Ute Neugebauer, Christian Berens, Leibniz-IPHT, FLI</i>	
10:15	Dynamic interplay of host-pathogen interactions in avian and murine whole blood models <i>Sravva Sreekantapuram, Leibniz-HKI</i>	
10:35	A hybrid optical fiber trap-based approach for <i>in vivo</i> spectroscopy <i>Malte Plidschun, Leibniz-IPHT</i>	
10:55	Are special membrane domains of <i>Schizophyllum commune</i> lipid rafts? <i>Katrin Krause, FSU Jena</i>	
11:15	Advanced imaging flow cytometry <i>Andreas Kleiber, Leibniz-IPHT</i>	
11:35	[Micro] droplets of water in the wine: challenges from transferring academic research into life science products <i>Holger Becker, Microfluidic ChipShop</i>	
11:55	Closing Remarks <i>Bernhard Hube, Leibniz-HKI</i>	
12:00	Lunch	
13:00	4 <sup>th</sup> IbSB Symposium	

FSU Jena: Friedrich Schiller University Jena

Leibniz-HKI: Leibniz Institute for Natural Product Research and Infection Biology

Leibniz-IPHT: Leibniz Institute for Photonic Technology

Fraunhofer-IOF: Fraunhofer Institute for Applied Optics and Precision Engineering

FLI: Friedrich-Loeffler-Institut