

# RECRUITMENT

24 February 2020

MDC-Mitte, BIMBSB

Hannoversche Str. 28, 10115 Berlin

# SYMPOSIUM

ADVANCED IMAGING APPLICATIONS FOR SYSTEMS  
BIOLOGY

COMPUTATIONAL OR THEORETICAL APPROACHES  
FOR DECIPHERING HUMAN DISEASE DATA

9:00 am - 9:15 am *Welcome Address by Ana Pombo and Uwe Ohler, MDC/BIMBSB*

**Session 1 "Compute"**

9:15 am - 9:45 am Jakob Metzger, Rockefeller University, New York, NY, USA **Human Organoids – Modeling Development and Disease**

9:45 am - 10:15 am Claudia Weber, EMBL-EBI, Hinxton, UK **Using genome evolution to understand the genotype-phenotype map**

10:15 am - 10:45 am Laleh Haghverdi, EMBL, Heidelberg, Germany **Multi-Omics Single-Cell Computational Biology**

10:45 am - 11:15 am *Coffee break*

**Session 2 "Imaging"**

11:15 am - 11:45 am Melissa Birol, University of Pennsylvania, Philadelphia, USA **TBA**

11:45 am - 12:15 pm Alexander Krull, MPI CBG, Dresden, Germany **Noise2Void and Beyond: Self-Supervised Denoising for Microscopy**

12:15 pm - 12:45 pm Jelena Erceg, Harvard Medical School, Boston, MA, USA **Functional regulation and diploid genome architecture in multicellular organisms**

12:45 pm - 1:15 pm Rory Power, Morgridge Institute for Research, Madison, WI, USA **Imaging intact biological systems with light sheet fluorescence microscopy**

1:15 pm - 2:30 pm *Lunch break*

**Session 3 "Compute"**

2:30 pm - 3:00 pm Yuri Pritykin, Memorial Sloan Kettering Cancer Center, New York, NY, USA **Systems biology of CD8 T cells in cancer, infection, and self-tolerance**

3:00 pm - 3:30 pm Stefano Berto, UT Southwestern Medical Center, Dallas, TX, USA **Schizophrenia, prefrontal cortex, and human evolution: a cell-type perspective**

3:30 pm - 4:00 pm Simone Zaccaria, Princeton University, Princeton, NJ, USA **Computational methods for characterizing the copy number landscape of cancer genomes**

4:00 pm - 4:30 pm *Coffee break*

**Session 4 "Imaging"**

4:30 pm - 5:00 pm Ezzat El-Sherif, Friedrich-Alexander-University Erlangen-Nürnberg, Germany **Gene regulation at the macro and micro scales**

5:00 pm - 5:30 pm Christina Martinez-Torre, Delft University of Technology, Delft, Netherlands **Quantitative phase imaging and dynamic biomaterials for regenerative medicine**

5:30 pm - 6:00 pm Robert Haase, Center for Systems Biology/MPI CBG, Dresden, Germany **Towards a quantitative 4D atlas of Tribolium castaneum embryo development**

6:00 pm - 6:15 pm *Closing remarks*