

Tuesday, November 24, 2020 - Day 1 -

09:00 - 09:30 am	Welcome Address Eva Nourney, BMBF Matthia Karreman, Spokesperson e:Med Project Committee	<i>Chair: Matthia Karreman</i>
09:30 - 10:00 am	Keynote Talk Fabian Theis, Helmholtz Zentrum München <i>Keynote: Modeling cellular state and dynamics in single cell genomics</i>	<i>Chair: Matthia Karreman</i>
10:00 - 11:00 am	New Projects in Systems Medicine I <i>Chair: Rainer Spanagel, Stefan Florian</i>	
10:00 - 10:10 am	Marcus Meinhardt, Central Institute of Mental Health Mannheim <i>Target-OXY: Towards Targeted Drug Treatment in Alcohol Addiction</i>	
10:10 - 10:20 am	Emanuel Schwarz, Central Institute of Mental Health <i>COMMITMENT: COMorbidity Modeling via Integrative Transfer machine-learning in MENTAL illness</i>	
10:20 - 10:30 am	Daniel Weindl, Helmholtz Zentrum München <i>PeriNAA: Integrative analysis of peripheral N-acetylaspartate metabolism</i>	
10:30 - 10:40 am	Jan Baumbach, TU Munich <i>Sys_CARE: Systems Medicine Investigation of Alternative Splicing in Cardiac and Renal Diseases</i>	
10:40 - 10:50 am	Rainer Spanagel, Central Institute of Mental Health Mannheim <i>SysMedSUDs: A systems-medicine approach towards distinct and shared resilience and pathological mechanisms of substance use disorders</i>	
10:50 - 11:00 am	Ivan Costa, Institute for Computational Genomics, RWTH Aachen <i>Fibromap: Spatial mapping of single cells in fibrotic diseases</i>	
11:00 - 11:15 am	Virtual Coffee Break	
11:15 - 12:15 pm	Modelling and Technologies in Systems Medicine <i>Chair: Ulla Schultheiß, Markus Scholz</i>	
11:15 - 11:30 am	Lucia Trastulla, Max-Planck Institute of Psychiatry, Munich <i>Identification of complex disease associated pathways using imputed cell type specific gene expression patterns across large patient cohorts</i>	
11:30 - 11:45 am	Saikat Banerjee, Max Planck Institute for Biophysical Chemistry, Göttingen <i>Reverse regression increases power for detecting trans-eQTLs</i>	
11:45 - 12:00 pm	Sara Checa, Charité – University Hospital Berlin <i>Multiscale modeling of bone tissue regeneration: bridging the scales to investigate potential treatment strategies for impaired conditions</i>	
12:00 - 12:15 pm	Matthias Reuss, Stuttgart Research Center Systems Biology <i>Spatial-temporal multiscale modelling and simulation of vascular tumour growth - development of new multicellular simulators based on structural consistence between model and computer architecture</i>	
12:15 - 01:00 pm	Virtual Lounge	
01:00 - 02:15 pm	New Projects in Systems Medicine II <i>Chair: Helena Zacharias, Maria Fedorova</i>	
01:00 - 01:10 pm	Patrina S.P. Poh, Charité - Universitätsmedizin Berlin <i>SyMBoD: System medicine approach for personalised bone defect treatment in patients comorbid with Type 2 diabetes</i>	
01:10 - 01:20 pm	Julio Vera-González, Universitätsklinikum Erlangen <i>MelAutim: Systems medicine of melanoma and autoimmunity in the context of immunotherapy</i>	
01:20 - 01:30 pm	Philip Rosenstiel, Institute of Clinical Molecular Biology, Kiel <i>iTREAT: A systems medicine approach to individualized treatment trajectories in Psoriasis and Inflammatory bowel disease</i>	

Tuesday, November 24, 2020 - Day 1 cont'd -

- 01:30 - 01:40 pm** **Florian Tran, Institute of Clinical Molecular Biology, Kiel**
GUIDE-IBD: Molecular-medicine based therapy GUIDancE in Inflammatory Bowel Disease
- 01:40 - 01:50 pm** **Simon Haas, HI-STEM gGmbH and German Cancer Research Center (DKFZ)**
LeukoSyStem: Multi-scale, single-cell systems biology of leukemia stem cells in pathogenesis and therapy
- 01:50 - 02:00 pm** **Katarzyna Bozek, University of Cologne & Stefan Florian, Charité**
DeepLTNBC: A systems level approach to understanding changes in Triple Negative Breast Cancer heterogeneity in response to neoadjuvant chemotherapy
- 02:00 - 02:10 pm** **Georg Fuellen, Universitätsmedizin Rostock**
SASKit: Senescence-Associated Systems diagnostics Kit for cancer and stroke
- 02:15 - 03:30 pm** **Virtual Poster Session A, all posters – Q&A Diseases & Technologies**
- 02:15 - 02:45 pm** **Poster Flash Talks (10 talks à 2 min)** *Chair: Simon Haas*
- 02:45 - 03:30 pm** **Poster Q&A Session modelling, translation (Chat Discussion)**
- 03:30 - 04:15 pm** **Molecular Medicine Board** *Chair: Jana Wolf*
- Peter Krawitz, University of Bonn**
Deep Learning on Medical Imaging Data
AI in clinical use: Face2Gene and beyond
- From 04:15 pm** **Virtual Lounge**
Interact and meet with your peers

Wednesday, November 25, 2020 - Day 2 -

09:00 - 09:30 am	Keynote Lecture Joachim Schultze, University of Bonn <i>Keynote: Bringing Next Generation Genomics to Systems Medicine</i>	<i>Chair: Emanuel Schwarz</i>
09:30 - 10:45 am	New Projects in Systems Medicine III <i>Chair: Silke Szymczak, Philip Rosenstiel</i>	
09:30 - 09:40 am	Konrad Aden, Institute of Clinical Molecular Biology, Kiel <i>Try-IBD: Multi-dimensional resolution of tryptophan-driven immune-metabolism as a novel pathophysiological principle in inflammatory bowel disease</i>	
09:40 - 09:50 am	Roman Thomas, University of Cologne <i>InCa: A systems approach to dissect actionable heterotypic interactions of lung cancer cells with their microenvironment</i>	
09:50 - 10:00 am	Dana Westphal, TU Dresden <i>MelBrainSys: Model-based prediction and experimental validation of novel therapeutic interventions for melanoma brain metastases</i>	
10:00 - 10:10 am	Clemens Schmitt, Charité - University Medical Center Berlin <i>SeneSys for iLymTx: Senescence-based systems-medicine stratification for individualized lymphoma therapy</i>	
10:10 - 10:20 am	Markus Scholz, University of Leipzig <i>SYMPATH: SYstems Medicine of Pneumonia-aggravated ATHerosclerosis</i>	
10:20 - 10:30 am	Agustin Rodriguez Gonzalez, Deutsches Krebsforschungszentrum (DKFZ) <i>NephrESA: Personalized Treatment of Chemotherapy Induced Anemia in Lung Carcinoma</i>	
10:30 - 10:40 am	Helena U. Zacharias, University Medicine Greifswald <i>CKDNapp: A toolbox for monitoring and tailoring treatment of chronic kidney disease patients – a personalized systems medicine approach</i>	
10:45 – 11:00 am	Virtual Coffee Break	
11:00 - 11:45 am	Focus Talks	<i>Chair: Matthia Karreman</i>
11:00 - 11:15 am	Herna Muñoz-Galeano, HMG Systems Engineering GmbH <i>Democratising Personalised Medication</i>	
11:15 - 11:30 am	Carlo Maj, Illumina <i>Combining polygenic risk scores with gene-based burden scores</i>	
11:30 - 11:45 am	Yuanyuan Chen, Novogene <i>Application of NGS technologies in medical researches</i>	
11:45 - 12:15 pm	e:Med Project Groups Karin Greulich-Bode, e:Med Management Office <i>Networking in e:Med: Project groups as topic boosters</i> Maria Fedorova, Leipzig University <i>PG MS-based Omics</i> Christoph Schickhardt, NCT Heidelberg – PG Data Security & Ethics <i>Data sharing attitudes and practices in the e:Med community</i>	<i>Chair: Matthia Karreman</i>
12:15 – 12:30 pm	Interaction e:Med Project Group Topics	
12:30 – 01:00 pm	Virtual Lounge	
01:00 - 01:30 pm	Keynote Lecture Dagmar Kulms, TU Dresden <i>Keynote: Systemic network analysis to support personalized patient stratification in malignant melanoma</i>	<i>Chair: Sascha Dietrich</i>

Wednesday, November 25, 2020 - Day 2 cont'd -

01:30 - 02:15 pm	Systems Medicine of Diseases <i>Chair: Dana Westphal, Sascha Dietrich</i>
01:30 - 01:45 pm	Joana P. Bernardes, IKMB Kiel <i>Innovative medical reporting of multi-dimensional molecular data in therapy guidance for infliximab treatments in IBD patients</i>
01:45 - 02:00 pm	Apurva Shrivastava, University Medical Center, Eppendorf, Hamburg <i>Molecular Assessment of Iron Deficiency in Heart Failure</i>
02:00 - 02:15 pm	Olga Vvedenskaya, MPI of Molecular Cell Biology and Genetics, Dresden <i>Shotgun lipidomics analysis of liver diseases reveals mutation-specific changes of lipidome</i>
02:15 - 03:30 pm	Virtual Poster Session B, all posters – Q&A Modelling & Translation
02:15 - 02:45 pm	Poster Flash Talks (10 talks à 2 min) <i>Chair: Samuel Huber</i>
02:45 - 03:30 pm	Poster Q&A Session diseases, technologies (Chat Discussion)
03:30 - 04:00 pm	Translational Systems Medicine <i>Chair: Rainer Spanagel</i>
03:30 - 03:45 pm	Stefan Wiemann, German Cancer Research Center (DKFZ) <i>Integrating Proteomics into Precision Oncology</i>
03:45 - 04:00 pm	Arkadiusz Komorowski, Medical University of Vienna <i>Integrating whole-brain gene expression profiles with task-specific functional magnetic resonance imaging activation during emotional face recognition</i>
04:00 - 04:15 pm	e:Med Poster & Creative Award Ceremony & Closing Remarks <i>Chair: Matthia Karreman</i> Rainer Spanagel, Spokesperson e:Med Project Committee
From 04:15 pm	Virtual Lounge <i>Interact and meet with your peers</i>

Thursday, November 26, 2020 - Day 3 - Workshop

10:00 - 12:00 pm	Workshop Speakers and Organizers: Julien Gagneur, Technical University of Munich Vicente A. Yépez, Technical University of Munich Ines Scheller, Technical University of Munich <i>Detecting aberrant expression in RNA-seq:</i> <i>A hands-on tutorial through bioinformatics tools and workflows</i>
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