



**Monday, 16 November 2020**

## Progress in microbiome and infection diagnostics

- The microbiome, your second genome
- Breathomics: Diagnostics from the air we breathe

*Chair: Prof. Dr. med. Beniam Ghebremedhin, Witten/Herdecke & Wuppertal*

10:30 – 12:30 h

### Session: The microbiome, your second genome

10:30 – 10:45 h

#### **Introduction**

Prof. Dr. med. Beniam Ghebremedhin, Universität Witten/Herdecke, HELIOS Universitätsklinikum Wuppertal

10:45 – 11:00 h

#### **Overview in microbiome analysis**

Prof. Dr. med. Dr. rer. nat. André Gessner, Universitätsklinikum Regensburg, Institut für Mikrobiologie und Hygiene

11.00 – 11:15 h

#### **Microbiome and oncology research**

Prof. Dr. med. Ernst Holler, Universitätsklinikum Regensburg, Transl. Forschung Hämato-Onkologie

11:15 – 11:30 h

#### **The biochemical language of the microbiota-gut-brain axis**

Dr. Jonathan Swann, Faculty of Medicine, Department of Metabolism, Digestion and Reproduction, Imperial College London

11:30 – 11:45 h

#### **The volatile organic compounds (VOCs) of bacterial pathogens**

Dr. Simona Cristescu, Institute for Molecules and Materials, Radboud University

11:45 – 12:30 h

#### **Roundtable discussion**

12:30 – 14:00 h

### Lunch break / Industry sessions

## Hall 1

14:00 – 16:00 h

### **Session: Breathomics: Diagnostics from the air we breathe**

14:00 – 14:10 h

#### **Introduction**

Prof. Dr. med. Beniam Ghebremedhin, Universität Witten/Herdecke, HELIOS Universitätsklinikum Wuppertal

14:10 – 14:25 h

#### **Volatile organic compounds in gastrointestinal disorders**

Dr. Agnieszka Smolinska, Pharmacology and Toxicology Department, Maastricht University

14:25 – 14:40 h

#### **Ion mobility spectrometry in clinical microbiology**

Dr. Wolfgang Vautz, ION-GAS GmbH, Dortmund

14:40 – 14:55 h

#### **Shedding light on the biomolecular conversations between the gut microbiota and host using metabolomics**

Dr. Jonathan Swann, Faculty of Medicine, Department of Metabolism, Digestion and Reproduction, Imperial College London

14:55 – 15:10 h

#### **VOC analysis and influenza virus infection**

Prof. Dr. med. Wieland Voigt, MIM Steinbeis-Hochschule, Berlin

15:10 – 16:00 h

#### **Roundtable discussion**

*[Version: 25 August 2020, subject to change]*

**Tuesday, 17 November 2020**

## Cardiological and oncological diagnostics

- Cardiology goes digital
- Cancer diagnostics from blood

*Chair: Prof. Dr. med. Stefan Holdenrieder, München*

10:30 – 13:00 h

### Session: Cardiology goes digital

10:30 – 10:45 h

#### **Introduction**

Prof. Dr. med. Stefan Holdenrieder, Deutsches Herzzentrum München

10:45 – 11:00 h

#### **DigiMed: Creating next level health care centers by data networks**

Dr. med. Dr. med. Moritz von Scheidt, Deutsches Herzzentrum München

11:00 – 11:15 h

#### **Private data and lifestyle medicine**

Prof. Dr. med. Billy Sperlich, Universität Würzburg

11:15 – 11:30 h

#### **High-dimensional data: Make complexity simple**

Prof. Dr. Frank Klawonn, HZI Braunschweig

11:30 – 11:45 h

#### **News on cardiac tissue engineering**

Prof. Dr. med. Markus Krane, Deutsches Herzzentrum München

11:45 – 13:00 h

#### **Roundtable discussion**

13:00 – 14:00 h

### Lunch break

## Hall 1

14:00 – 16:00 h

### **Session: Cancer diagnostics from blood**

14:00 – 14:15 h

#### **Introduction**

Prof. Dr. med. Stefan Holdenrieder, Deutsches Herzzentrum München

14:15 - 14:30 h

#### **Cell-free DNA in solid cancer diagnostics**

Dr. Frank Diehl, Hamburg

14:30 - 14:45 h

#### **Routine use of artificial intelligence in molecular leukemia diagnostics**

Niroshan Nadarajah, MLL Munich

14:45 – 15:00 h

#### **Biology and clinical use of exosomes in oncology**

Prof. Dr. Michiel Pegtel, University of Amsterdam

15:00 – 15:15 h

#### **Stem cell derived EVs and immune regulatory functions**

PD Dr. rer. nat. Bernd Giebel, Universität Essen

15:15 – 16:00 h

#### **Roundtable discussion**

*[Version: 25 August 2020, subject to change]*

**Wednesday, 18 November 2020**

## The COVID-19 pandemic

- Diagnostic aspects and immunity
- Clinical aspects

*Chair: Prof. Dr. med. Gunther Hartmann, Bonn / Prof. Dr. med. Stefan Holdenrieder, München*

10:30 – 12:30 h

### **Session: Diagnostic aspects and immunity**

*Chair: Prof. Dr. med. Gunther Hartmann, Institut für Klinische Chemie und Pharmakologie, Universitätsklinikum Bonn*

10:30 – 10:45 h

#### **Introduction**

Prof. Dr. med. Gunther Hartmann, Institut für Klinische Chemie und Klinische Pharmakologie, Universitätsklinikum Bonn

10:45 – 11:00 h

#### **SARS-CoV-2 high-throughput testing**

Prof. Dr. Jonathan Schmid-Burgk

11:00 – 11:15 h

#### **Testing immunity against SARS-CoV-2**

Prof. Dr. med. Hendrik Streeck, Universitätsklinikum Bonn

11:15 – 11:30 h

#### **External ring trials for SARS-CoV-2 antibodies**

Dr. med. Verena Haselmann, Universitätsmedizin Mannheim

11:30 – 11:45 h

#### **Diagnostic performance of PCR and antibody assays in an outbreak situation**

Dr. Alexander von Meyer, Klinikum München

11:45 – 12:30 h

#### **Roundtable discussion**

13:00 – 14:00 h

### **Industry slots**

## Hall 1

14:00 – 16:00 h

### **Session: Clinical aspects**

*Chair: Prof. Dr. med. Stefan Holdenrieder, Deutsches Herzzentrum München*

14:00 – 14:15 h

#### **Introduction**

Prof. Dr. med. Stefan Holdenrieder, Deutsches Herzzentrum München

14:15 – 14:30 h

#### **Immunity against CoV-2**

Prof. Dr. med. Gunther Hartmann, Institut für Klinische Chemie und Klinische Pharmakologie, Universitätsklinikum Bonn

14:30 – 14:45 h

#### **COVID-19-induced coagulopathy**

Prof. Dr. med. Bernd Poetzsch

14:45 – 15:00 h

#### **Genetic predisposition for COVID-19 susceptibility**

Dr. med. Hanns-Georg Klein, MVZ Martiensried

15:00 – 15:15 h

#### **How to predict the potential overload of health systems by COVID-19**

Prof. Dr. Frank Klawonn, HZI Braunschweig

15:15 – 16:00 h

#### **Roundtable discussion**

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# MEDICA LABMED FORUM

Hall 1

Preliminary Program



**Thursday, 19 November 2020**

## Trends in laboratory medicine and life sciences

- Young talents in diagnostics and research
- Innovative COVID-19 tests

*Chair: Dr. med. Verena Haselmann, Mannheim / Dr. Peter Quick, Walldorf*

10:30 – 13:00 h

### Session: Young talents in diagnostics and research

*Chair: Dr. med. Verena Haselmann, Universitätsmedizin Mannheim*

10:30 – 10:45 h

#### **Introduction**

Dr. med. Verena Haselmann, Universitätsmedizin Mannheim

10:45 – 11:00 h

#### **Assays for SARS-CoV-2 antibodies**

Dr. Ronald Biemann, Universitätsklinikum Leipzig

11:00 – 11:15 h

#### **Innovative visualization of clinical and laboratory data**

Dr. med. Margot Thiaucourt, Universitätsmedizin Mannheim

11:15 – 11:30 h

#### **ProBNP in children with inborn heart defects**

Jonas Palm, Deutsches Herzzentrum München

11:30 – 11:45 h

#### **Antimicrobial peptides in septic arthritis**

Dr. Dzamal Elezagic, Uniklinik Köln

11:45 – 12:00 h

#### **cfDNA in cancer**

Romina Rösch, Technische Universität München

12:00 – 12:15 h

#### **Tumor heterogeneity in daily practice**

Zsolt Kovac, Universität Bonn

12:15 – 12:30 h

#### **cfDNA in forensic medicine**

Katrin Brodbeck, Ludwig-Maximilians-Universität München

12:30 – 13:00 h

#### **Discussion**

## Hall 1

13:30 – 16:30 h

### **Session: Innovative COVID-19 diagnostics**

*Chair: Dr. Peter Quick, Promega GmbH*

13:30 – 13:45 h

#### **Introduction**

Dr. Peter Quick, Promega GmbH

13:45 – 14:00 h

#### **Emulating alveolus biology within a biochip: Microphysiological systems as translational tool in COVID-19 research**

Dr. Martin Raasch, Dynamic42 GmbH

14:00 – 14:15 h

#### **Decoding epigenetics and its implications for the immune response to COVID-19**

Dr. Moritz Völker-Albert, EpiQMAx GmbH

14:15 – 14:30 h

#### **Lumit™ Dx SARS-CoV-2 assay technology**

Dr. Torben Wolf, Promega GmbH

14:30 – 14:45 h

#### **Disposable sensors for on-site COVID-19 testing**

Dr.-Ing. Can Dincer, IMTEK - Lab for Sensors

14:45 – 15:00 h

#### **Prediction models of increased susceptibility or resistance to COVID-19**

Dr. Marco Schmidt, biotx.ai GmbH

15:00 – 15:15 h

#### **Rapid AI based COVID-19 assay development**

Dr. Lothar Kruska, Seegene Germany GmbH

15:15 – 15:30 h

#### **Novel Macroarray and RBD-specific ELISA for the detection of SARS-CoV-2-specific antibodies**

Dr. rer. nat. Mathias Schlegel, Seramun Diagnostica GmbH

15:30 – 15:45 h

#### **Circulating nucleosomes as potential prognostic markers for COVID-19 disease severity**

Mark Eccleston, VolitionRx

15:45 – 16:00 h

#### **New drugs targeting two essential and novel molecular targets in SARS-CoV-2**

Dr. Adrian Schomburg, Eisbach Bio GmbH

16:00 – 16:30 h

#### **Discussion**

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