



15TH SEEON CONFERENCE

MICROBIOTA, PROBIOTICS AND HOST

MIKROBIOTA, PROBIOTIKA UND WIRT

June 29th - July 1st 2023

CONFERENCE CENTER

Kloster Seeon (Monastery Seeon/ Chiemsee)
Kultur- und Bildungszentrum des Bezirks Oberbayern
Klosterweg 1, 83370 Seeon
www.kloster-seeon.de

REGISTRATION DETAILS

www.dghm.org/seeon

March 15th 2023

Early-Bird Deadline

June 15th 2023

Registration Deadline

SHUTTLE SERVICE OVERVIEW (BOOKING REQUIRED)

Wednesday 28th (1 day before conference/ first day of Summer School) to Seeon Monastery

12:00 - 13:30 shuttle from Munich Airport
12:45 - 13:15 shuttle from Bad Endorf train station

Thursday 29th (1st day of conference) to Seeon Monastery

13:30 - 15:00 shuttle from Munich Airport
13:45 - 14:15 shuttle from Bad Endorf train station

Thursday 29th leaving from Seeon Monastery

14:15 Shuttle departure to airport and Bad Endorf train station

Saturday 1st July (last day of conference) leaving from Seeon Monastery

13:15 Shuttle departure to airport and Bad Endorf train station



Thursday, 29th June 2023

14:00	16:00	Registration
16:00	16:15	Welcoming
16:15	17:00	Keynote Lecture Systems Ecology of the Human Expobiome Paul Wilmes
17:00	18:00	Session 1: Metabolism & microbial dynamics
18:15	19:45	Dinner
20:00	21:30	Poster Slam (2 minutes/ slides)

Friday, 30th June 2023

9:00	9:45	Keynote Lecture Molecular secrets of pandemic <i>Vibrio cholerae</i> Melanie Blokesch
9:45	10:45	Session 2: Drugs & modulating the microbiome
10:45	11:15	Coffee break/ Poster at first glance
11:15	12:00	Keynote Lecture Opposing roles of bacterial mucus erosion and metabolite production in inflammatory bowel disease Eric Martens
12:00	13:30	Lunch
13:30	14:15	Keynote Lecture Antiphage molecules produced by bacteria Julia Frunzke
14:15	15:15	Session 3: Microbiome in disease
15:15	15:45	Coffee break
15:45	16:05	<i>Hot topic</i> <i>Host-microbiome interactions in the context of recent human evolution</i> <i>Mathilde Poyet</i>
16:05	16:25	<i>Hot topic</i> <i>The effect of ketogenic diet on the host microbiota, immune and central nervous system</i> <i>Francesca Ronchi</i>
16:25	16:45	<i>Hot topic</i> <i>Dissecting Host - microbe interactions using quantitative proteomics</i> <i>Joel Selkirk</i>
16:45	17:15	DGHM Fachgruppenmeeting for members
16:45	19:00	Poster session
19:00		Dinner

Saturday, July 1st 2023

9:00	9:45	Keynote Lecture Key determinants of FMT success Gianluca Ianiro
9:45	10:45	Session 4: Techniques in microbiome research
10:45	11:15	Coffee break
11:15	12:15	Session 5: Microbe-host interactions
12:30	13:00	Awards & Farewell
13:00		Lunch to Go
13:15		Shuttle to airport and train station



THURSDAY, JUNE 29TH 2023

14:00 - 16:00 Registration

16:00 - 16:15 WELCOMING

Chaired by Thomas Clavel, Functional Microbiome Research Group, Institute of Medical Microbiology, University Hospital of RWTH Aachen, Aachen, Germany

16:50 – 17:00 KEYNOTE LECTURE

System Ecology of the Human Exobiome

Paul Wilmes, Luxembourg Centre for Systems Biomedicine, Department of Life Sciences and Medicine, Faculty of Science, Technology and Medicine, Université du Luxembourg, Luxembourg

Chaired by Thomas Clavel, Functional Microbiome Research Group, Institute of Medical Microbiology, University Hospital of RWTH Aachen, Aachen, Germany

17:00 – 18:00 SESSION 1 - METABOLISM & MICROBIAL DYNAMICS

Nitrogen Cycling in the Human Gut Microbiome across Ages of Life

Cacace, Institute of Microbiology, Department of Biology, ETH Zurich, Switzerland

Evaluating the Effect of Candidate Prebiotics in the Human Gut Microbiota by Activity-Based Cell Sorting and Targeted Isolation

Rasoulimerhrabani, Center for Microbiology and Environmental Systems Science, Department of Microbiology and Ecosystem Science, Division of Microbial Ecology, University of Vienna, Austria

Blautia Pseudococcoides and *Enterocloster Clostridioformis* Confer Colonization Resistance Against Segmented Filamentous Bacteria

Bolsega, Institute for Laboratory Animal Science and Central Animal Facility, Hannover Medical School, Germany

Therapeutic Potential of Tradeoffs During Adaptation of *E. Coli* to the Inflamed Mouse Gut

Unni, Max-Planck Institute for Evolutionary Biology, Plön, Germany

Chaired by Thomas Clavel, Functional Microbiome Research Group, Institute of Medical Microbiology, University Hospital of RWTH Aachen, Aachen, Germany

18:15 - 19:45 Dinner

20:00 - 21:30 POSTER SLAM (2 MIN/ 2 SLIDES)

Chaired by Maja Magel, Functional Microbiome Research Group, Institute of Medical Microbiology, University Hospital of RWTH Aachen, Aachen, Germany



FRIDAY, 30TH JUNE 2023

9:00 - 9:45

KEYNOTE LECTURE

Molecular Secrets of Pandemic *Vibrio Cholerae*

Melanie Blokesch, Laboratory of Molecular Microbiology, Global Health Institute, School of Life Sciences, Swiss Federal Institute of Technology Lausanne (EPFL), Lausanne, Switzerland

Chaired by Till Strowig, Microbial Immune Regulation, Helmholtz Centre for Infection Research, Braunschweig, Germany

9:45 - 10:45

SESSION 2: DRUGS & MODULATING THE MICROBIOME

Chronic Exposure to Antiseizure Drugs Impacts the Gut Microbiota Community and Function

Dop, Université Paris-Saclay, INRAE, AgroParisTech, Micalis Institute, Domaine de Vilvert, Jouy-en-Josa, France

Systematically Investigating the Interactions between the Gut Microbiome and Psychotropic Drugs

Berg, Institute of Medical Microbiology and Hygiene, University Hospital Tübingen and Interfaculty Institute of Microbiology and Infection Medicine, University of Tübingen, Germany

Differential Impact of Antibiotic Regiments Drive on Microbiome Alterations and Emergence of Fungi

Biehl, Department I of Internal Medicine, Faculty of Medicine and University Hospital of Cologne, University of Cologne, Cologne, Germany

Phage Induced Strain Replacement Within Microbiomes

Gaissmaier, Max von Pettenkofer Institute, Department of Bacteriology, LMU Munich, Germany

Chaired by Till Strowig, Microbial Immune Regulation, Helmholtz Centre for Infection Research, Braunschweig, Germany

10:45 - 11:15

Coffee break/ POSTER AT FIRST GLANCE

11:15 - 12:00

KEYNOTE LECTURE

Opposing Roles Of Bacterial Mucus Erosion And Metabolite Production In Inflammatory Bowel Disease

Eric Martens, Professor of Microbiology and Immunology, University of Michigan Medical School, Ann Arbor, Michigan, USA

Chaired by Till Strowig, Microbial Immune Regulation, Helmholtz Centre for Infection Research, Braunschweig, Germany



12:00 - 13:30 Lunch

13:30 - 14:15 KEYNOTE LECTURE

Antiphage Molecules Produced By Bacteria

Julia Frunzke, IBG-1 Biotechnology, Institute of Bio- and Geosciences, Forschungszentrum Jülich, Jülich, Germany

Chaired by Bärbel Stecher-Letsch, Microbiota & Infections, Max von Pettenkofer-Institute, LMU Munich, Germany

14:15 - 15:15 SESSION 3: MICROBIOME IN DISEASE

Breaking Down Inflammatory Bowel Disease: How Metabolic Modeling Sheds Light on the Gut-Microbiome Connection

Taubenheim, Research Group Medical System Biology, Institute of Experimental Medicine, University of Kiel

Characterization of Tumor Microbiome Using Shotgun Metagenome and 16S rRNA Gene Sequencing

Doloiras-Laraño, Translational Microbiome Sciences, Internal Medicine I, University Clinic Tuebingen, Tuebingen, Germany

Processed Diets Shift the Intestinal Microbiome and Exacerbate Tumorigenesis in Murine Models of ATF6-Driven Colon Cancer

Ecker, Chair of Nutrition and Immunology, ZIEL, Technische Universität München, Freising, Germany

Chaired by Bärbel Stecher-Letsch, Microbiota & Infections, Max von Pettenkofer-Institute, LMU Munich, Germany

15:15 - 15:45 Coffee break



15:45 - 16:05 HOT TOPIC

[Host-microbiome interactions in the context of recent human evolution](#)

Mathilde Poyet, *Institute of Experimental Medicine, University of Kiel, Germany & Massachusetts Institute of Technology, United States, Global Microbiome Conservancy*

Chaired by Mathias Hornef, *Institute of Medical Microbiology, RWTH University, Aachen, Germany*

16:05 - 16:25 HOT TOPIC

[The effect of ketogenic diet on the host microbiota, immune and central nervous system](#)

Francesca Ronchi, *Institute of Microbiology, Infectious Diseases and Immunology (I-MIDI), Charité - Universitätsmedizin Berlin, Germany*

Chaired by Mathias Hornef, *Institute of Medical Microbiology, RWTH University, Aachen, Germany*

16:25 - 16:45 HOT TOPIC

[Dissecting Host - microbe interactions using quantitative proteomics](#)

Joel Selkrig, *Institute of Medical Microbiology, Host-Microbe Interactomics Group, University Hospital of Aachen, Germany*

Chaired by Mathias Hornef, *Institute of Medical Microbiology, RWTH University, Aachen, Germany*

16:45 - 17:15 DGHM FACHGRUPPENMEETING FOR MEMBERS

16:45 - 19:00 POSTER SESSION

19:00 - Dinner



SATURDAY, 1ST JULY 2023

9:00 - 9:45

KEYNOTE LECTURE

Key determinants of FMT success

Gianluca Ianiro, Digestive Disease Center, Fondazione Policlinico Universitario Gemelli IRCCS & Università Cattolica del Sacro Cuore, Rome, Italy

Chaired by Maria Vehreschild, Infectiology, Medical Clinic II, University Hospital Frankfurt, Germany

9:45 - 10:45

SESSION 4 - TECHNIQUES IN MICROBIOME RESEARCH

Spike-In Quantification Techniques for Improved Microbiome Sequencing: Short- and Long-Read Applications

Daller, Institute of Medical Microbiology and Hygiene, University Regensburg, Germany

Deriving and Evaluating Microbial Profiles Obtained across Diverse Sequencing Technologies

Pekel, Structural and Computational Biology Unit, European Molecular Biology Laboratory, 69117 Heidelberg, Germany

Towards Real-Time Imaging of the Gut Microbiome

Laing, Department of Preclinical Imaging and Radiopharmacy, Werner Siemens Imaging Center, Eberhard Karls University, Tübingen, Germany

Investigating the Mode of Action of Non-Antibiotic Drugs on Human Gut Microbes by Microscopy

Boldt, Interfaculty Institute of Microbiology and Infection Medicine, University of Tuebingen and Institute of Medical Microbiology and Hygiene, University Hospital Tuebingen, Germany

Chaired by Maria Vehreschild, Infectiology, Medical Clinic II, University Hospital Frankfurt, Germany

10:45 - 11:15

Coffee break

**11:15 - 12:15 SESSION 5 - MICROBE-HOST INTERACTIONS****Effect of Early Life Colonization by Flagellated Bacteria on Enteric Epithelial Cell Responses and Microbiome Establishment****Panyot**, *Functional Microbiome Research Group, Institute of Medical Microbiology, University Hospital of RWTH Aachen, Aachen, Germany***T Cell Skewing in Relation to Intestinal Dysbiosis and Graft-Versus-Host Disease in Allogeneic Stem Cell Transplantation****Wagner**, *Institute for Medical Microbiology, Immunology and Hygiene, Technical University of Munich (TUM), Munich, Germany****Helicobacter Pylori* Promotes Colorectal Carcinogenesis by Deregulating Intestinal Immunity and Inducing a Mucus-Degrading Microbiota Signature****Engelsberger**, *Institute for Medical Microbiology, Immunology and Hygiene, School of Medicine, Technical University of Munich, Germany***Chaired by Maria Vehreschild**, *Infectiology, Medical Clinic II, University Hospital Frankfurt, Germany***12:30 - 13:00 AWARDS & FAREWELL****Chaired by Thomas Clavel**, *Functional Microbiome Research Group, Institute of Medical Microbiology, University Hospital of RWTH Aachen, Aachen, Germany***13:00 Lunch to Go****13:15 SHUTTLE TO AIRPORT AND TRAIN STATION**



SPEAKERS – KEYNOTE LECTURES & HOT TOPICS

KEYNOTE LECTURE

Prof. Eric Martens

Professor of Microbiology and Immunology
University of Michigan Medical School
Ann Arbor, Michigan, USA

Gianluca Ianiro, MD, PhD

Digestive Disease Center
Fondazione Policlinico Universitario
Gemelli IRCCS
Università Cattolica del Sacro Cuore,
Rome, Italy

Prof. Dr. Julia Frunzke

IBG-1: Biotechnology
Institute of Bio- and Geosciences
Forschungszentrum Jülich
Wilhelm-Johnen-Strasse
D-52425 Jülich

Prof. Melanie Blokesch

Professor & Head, Laboratory of Molecular
Microbiology
Director, Global Health Institute
School of Life Sciences
Station 19 / EPFL-SV-UPBLO
Swiss Federal Institute of Technology
Lausanne (EPFL)
CH-1015 Lausanne, Switzerland

Prof. Paul Wilmes, PhD

Professor of Systems Ecology
Luxembourg Centre for Systems
Biomedicine
Department of Life Sciences and
Medicine, Faculty of Science, Technology
and Medicine
Université du Luxembourg
Campus Belval
7, avenue des Hauts-Fourneaux
L-4362 Esch-sur-Alzette
Luxembourg

HOT-TOPICS

Dr. Francesca Ronchi

Professor and Laboratory Head
Institute of Microbiology, Infectious
Diseases and Immunology (I-MIDI)
Charité - Universitätsmedizin Berlin,
Campus Benjamin Franklin
Hindenburgdamm 30
12203 Berlin, Germany

Joel Selkirk, PhD

Assistant Professor (W1) for Mucosal
Infection Biology
Institute of Medical Microbiology
Host-Microbe Interactomics Group
University Hospital of Aachen,
Pauwelsstr. 30
52074 Aachen, Germany

Prof. Dr. Mathilde Poyet

Institute of Experimental Medicine
University of Kiel, Germany
Massachusetts Institute of Technology,
United States
Founder and Scientific Director of Global
Microbiome Conservancy