



CAU-PMI-UCPH-DDA Autumn School for PhD Students

The Role of the Microbiome in
Complex Metabolic &
Inflammatory Diseases

29 Sept.-2 Oct. 2019

Sinatur Hotel Gl. Avernæs
Helnæsvej 9
DK-5631 Ebberup

Session overview



Day 1	Monday 30 September The Microbiome, Its Evolution, Components & Interaction with Diet
	Welcome, meet & greet Speaker presentations Oral presentations: OP 1-4
Poster session I	Poster pitches: PP 1-24 Poster presentations: PP 1-24 & OP 1-4
Day 2	Tuesday 1 October Further Insights into the Microbiome, Statistical Approaches & Practical Implementation
	Speaker presentations Oral presentations: OP 5-10
Workshops	4 parallel workshops
Poster session II	Poster pitches: PP 25-48 Poster presentations: PP 25-48 & OP 5-10
Day 3	Wednesday 2 October Host-microbiota Interaction in Immune Response
	Speaker presentations Farewell

Programme

Sunday 29 September

16:15–17:10 Bus transportation from Odense Central Station to
Sinatur Hotel Gl. Avernæs

17.10–18:30 Check in & possibility of mounting of posters

18:30-20:30 Informal dinner

Programme

Monday 30 September

07:30-09:00 Morning exercise (optional) & breakfast
Check in & mounting of posters

Day I **The Microbiome, Its Evolution, Components & Interaction with Diet**

Chair: Professor Torben Hansen, University of Copenhagen (DK)

09:00-09:45 Welcome, meet & greet by the Organising Committee

09:50-10:10 Evolutionary Perspectives on the Gut Microbiome

Professor **John Baines**, Max Planck Institute for Evolutionary Biology (DE)

10:10-10:20 Questions & answers

10:25-10:45 Ultra-high Resolution Microbiomics – And What to Do When N is Way Too Low

Chief Scientific Officer, PhD **Henrik Bjørn Nielsen**, Clinical Microbiomics (DK)

10:45-10:55 Questions & answers

10:55-11:15 Coffee break

11:15-11:30 Oral presentation I

Biomarker Validation and identification of Metabotypes for personalized Nutrition in the Diet, Cancer and Health – Next Generations Cohort

PhD candidate **Agnetha Rostgaard-Hansen**, Danish Cancer Society (DK)

11:30-11:45 Oral presentation II

REDUCTION – A Reduced Carbohydrate Diet, High in

Monounsaturated Fats in Type 2 Diabetes: Impact on Gut-Liver Axis

PhD candidate **Camilla Dalby Hansen**, Odense University Hospital (DK)

11:45-12:00 Oral presentation III

The Gut Microbiota Regulates Hypothalamic Inflammation and Leptin Sensitivity in Western Diet-fed Mice via a GLP-1 Receptor-dependent Mechanism

PhD candidate **Christina Heiss**, University of Gothenburg (SE)

12:00-12:15 Oral presentation IV

Microbiota-mediated Modulation of the Cytotoxic T Cell Immunity

PhD candidate **Miriam Kuhlmann**, Technical University of Munich (DE)

12:15-13:15 Lunch

13:15-13:35 Impact of Diet on the Gut Microbiota in Children and Adults

Professor **Tine Rask Licht**, Technical University of Denmark (DK)

13:35-13:45 Questions & answers

13:50-14:10 Lipid Metabolism and Gut Microbiota

Professor **Jörg Heeren**, University Medical Center Hamburg-Eppendorf (DE)

14:10-14:20 Questions & answers

14:20-17:00 Free time & voluntary networking activities

17:00-17:35 24 poster pitches: PP 1-24

17:35 -19:00 Posters & drinks: PP 1-24 & OP 1-4

19:00-21:00 Dinner

21:00-22:30 Bonfire & drinks

Programme

Tuesday 1 October

07:00-08:15 Morning exercise (optional) & breakfast

Day II **Further Insights into the Microbiome, Statistical Approaches & Practical Implementation**

Chair: Professor Andre Franke, Kiel University (DE)

08:15-08:25 Welcome & follow up from the day before

08:30-09:00 **Keynote talk:** Bacteriophage – The ‘Known Unknowns’ of the Gut Microbiome

Dr **Colin Hill**, University College Cork (IE)

09:00-09:20 Questions & answers

09:25-09:45 Statistical Analysis of Human Microbiome Studies

Professor **Astrid Dempfle**, University Medical Center Schleswig-Holstein, Kiel (DE)

09:45-09:55 Questions & answers

09:55-10:25 Coffee break

10:30-10:45 Oral presentation V

Batch Effect Correcting Algorithms In Microbiome Sequencing

PhD candidate **Michael Olbrich**, University Medical Center Schleswig Holstein (DE)

10:45-11:00 Oral presentation VI

A Metagenomic Catalog of Short Genes from the Human Gut Microbiome Enables Identification of Relevant Ribosomally Transcribed Peptides

PhD candidate **Carmen Saenz**, University of Copenhagen (DK)

- 11:00-11:15 Oral presentation VII
- Computational Modeling of Intestinal Bacterial Composition in Relation to Parkinson's Disease
- PhD candidate **Lady Johanna Forero Rodriguez**, Kiel University (DE)
- 11:15-11:30 Oral presentation VIII
- Multidonor FMT Capsules Improve Symptoms and Decrease Fecal Calprotectin in Ulcerative Colitis Patients While Treated – An Open-label Pilot Study
- PhD candidate **Frederik Cold**, University of Copenhagen (DK)
- 11:30-11:45 Oral presentation IX
- The Role of Local Tumor Barrier Function for Tumor Cell Plasticity, Invasion and Metastasis of Colorectal Cancer
- PhD candidate **Dorothea Plundrich**, University Medical Center Freiburg (DE)
- 11:45-12:00 Oral presentation X
- The Impact of Lifestyle on the Development of the Gut Microbiome in Early Life in Relation to Allergies
- PhD candidate **Pernille Myers**, Technical University of Denmark (DK)
- 12:00-13:00 Lunch
- 13:00-13:30 **Keynote talk:** The Intestinal Microbiome Type 2 Diabetes and Its Pre- and Co-morbidities
- Professor **Oluf Borbye Pedersen**, University of Copenhagen (DK)
- 13:30-13:50 Questions & answers
- 13:50-13:55 Introduction to workshops
- 13:55-14:20 Coffee break

14:20-16:50

Workshop 1

Best Practice in Bioinformatics of Microbiome Data

Dr **Lucas Moitinho-Silva**, Kiel University (DE)

Dr **Malte Rühlemann**, Kiel University (DE)

PhD candidate **Shauni Doms**, Max Planck Institute for Evolutionary Biology (DE)

Workshop 2

Data Integration of Microbiome & Other Data

Dr **Louise Thingholm**, Kiel University (DE)

Postdoctoral fellow, Dr **Philipp Rausch**, University of Copenhagen (DK)

Workshop 3

Study Design for Human & Mouse Studies

Professor **Torben Hansen**, University of Copenhagen (DK)

Dr **Felix Sommer**, Kiel University (DE)

Professor **Philip Rosenstiel**, Kiel University (DE)

Postdoctoral fellow **Casper Sahl Poulsen**, University of Copenhagen (DK)

Workshop 4

Culturomics

Professor **Jan Rupp**, University Medical Center Schleswig-Holstein, Lübeck (DE)

Dr **Simon Graspeuntner**, University of Lübeck (DE)

Professor **Karsten Kristiansen**, University of Copenhagen (DK)

16:50-17:25 24 poster pitches: PP 25-48

17:30-19:00 Posters & drinks: PP 25-48 & OP 5-10

19:00-19:30 Free time

19:30-22:00 Informal galla dinner (no dress code)

Programme

Wednesday 2 October

07:00-08:50 Morning exercise (optional), breakfast & check out

Day III **Host-microbiota Interaction in Immune Response**

Chair: Professor Philip Rosenstiel, Kiel University (DE)

08:50-09:05 Welcome & follow up from the day before

09:10-09:40 **Keynote talk:** Conversing with Our “Other Self”: The Host Immune-Microbiota Dialogue

Professor **Charles O. Elson III**, University of Alabama at Birmingham (US)

09:40-10:00 Questions & answers

10:05-10:25 Regulation of Tolerance & Inflammation by Human Antigen-Specific T-Cells

Professor **Petra Bacher**, Kiel University (DE)

10:25-10:35 Questions & answers

10:35-11:30 Walk & talk & coffee to-go


11:30-11:50 Best poster & SoMe prize

11:50-13:00 Group photo & lunch

13:05-13:25 Epithelia-microbe Interactions and Intestinal Immune Homeostasis

Professor **Philip Rosenstiel**, Kiel University (DE)

13:25-13:35 Questions & answers



13:40-14:00	Microbe-immune Interactions in Health and Disease Professor Susanne Brix Pedersen , Technical University of Denmark (DK)
14:00-14:10	Questions & answers
14:10-14:30	Coffee break
14:35-14:55	Oh No, My Gut Microbiome Just Got Virus Infected Professor Dennis Sandris Nielsen , University of Copenhagen (DK)
14:55-15:05	Questions & answers
15:05-15:30	Closing remarks & evaluation
15:30-15:45	Farewell & sandwiches to-go
16:00	Bus transportation to Kiel
16:10	Bus transportation to Odense Central Station

Organising Committee Scientific Programme

Professor Andre Franke
Kiel University (DE)

Professor Torben Hansen
University of Copenhagen (DK)

Professor Karsten Kristiansen
University of Copenhagen (DK)

Associate Professor Manimozhiyan Arumugam
University of Copenhagen (DK)

Managing Director Tore Christiansen
Danish Diabetes Academy (DK)

Sponsors

The Cluster of Excellence “Precision Medicine in Chronic Inflammation” (DE)

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