# Microbiota and Health

# Monday 7 October, 2024

# **Registration and Welcome**

10:00 Registration and poster mounting

12:00-13:30 Lunch

13:30-14:00 Welcome and one-minute introductions by course participants

Björn Schröder, Umeå University

Valentina Tremaroli, University of Gothenburg

#### **Introduction to Microbiota**

Chairperson: Valentina Tremaroli

14:00-14:45 Introduction to microbiomes

Björn Schröder

Department of Molecular Biology, Umeå University, Sweden

14:45-15:00 Questions and discussion

15:00-15:30 Coffee

15:30-16:30 Microbiome data analysis

Luisa Hugerth

Department of Medical Biochemistry and Microbiology, Science for Life Laboratory,

Uppsala University, Sweden

16:30-16:45 Questions and discussion

16:45-17:30 Reducing bias and optimizing precision in human studies: The impact of design

and modeling choices Clemens Wittenbecher

Department of Life Sciences, Chalmers University of Technology, Gothenburg,

Sweder

17:30-17:45 Questions and discussion

17:45-18:30 Break

18:30 Dinner

20:00 Meet and greet with snacks

# **Tuesday 8 October, 2024**

#### Gut Microbiota in Health and Disease - I

Chairperson: Björn Schröder

8:30-9:15 Gut microbiota and health during a lifespan: Focus on early life

Anne Salonen

Human Microbiome Research Program, Faculty of Medicine, University of

Helsinki, Helsinki, Finland

9:15-9:30 Questions and discussion

9:30-10:15 Microbiota and the intestinal immune system

Eduardo Villablanca

Department of Medicine, Karolinska Institutet, Sweden

10:15-10:30 Questions and discussion

10:30-11:00 Coffee

# Microbial Therapeutics and Therapeutic Targets - I

Chairperson: Debra Milton

11:00-11:45 Fecal microbiota transplantation

Reetta Satokari

Human Microbiome Research Program, University of Helsinki, Finland

11:45-12:00 Questions and discussion

12:00-14:00 Lunch with free time

#### Microbial Communities Beyond The Gut-I

Chairperson: Debra Milton

14:00-14:45 Gut microbiota-Brain axis

María Rodriguez Aburto

APC Microbiome Ireland, Department of Anatomy and Neuroscience, University

College Cork, Ireland

14:45-15:00 Questions and discussion

15:00-15:30 Coffee

#### Workshop – Session I

Session Leaders: Luisa Hugerth

15:30-18:00 Retrieving, annotating and analysing metabarcoding data in R

18:30 Dinner

20:00 Gut Check – the Microbiota Game

# Wednesday 9 October, 2024

### Microbial Therapeutics and Therapeutic Targets - II

Chairperson: Björn Schröder

8:30-9:15 Interactions between drugs and the human gut microbiota

Jacobo de la Cuesta Zuluaga

Interfaculty Institute of Microbiology and Infection Medicine and Cluster of Excellence 'Controlling Microbes to Fight Infections', University of Tübingen,

Tübingen, Germany

9:15-9:30 Questions and discussion

9:30-10:15 Fermented foods, prebiotics, probiotics and human health

Samuel Mortensen

Teagasc Food Research Centre, Moorepark, Cork, Ireland

10:15-10:30 Questions and discussion

10:30-11:00 Coffee

#### **Gut Microbiota in Health and Disease - II**

Chairperson: Debra Milton

11:00-11:45 Gut microbiota stability in adulthood

Valentina Tremaroli

Department of Molecular and Clinical Medicine, University of Gothenburg,

Sweden

11:45-12:00 Questions and discussion

12:00-13:30 Lunch

13:30-14:30 Poster Session I

poster walks in groups in parallel (5 min presentation + 5 min questions)

14:30-15:00 Free poster viewing of "posters of the day"

15:00-15:30 Coffee

## Workshop – Session II

Session Leaders: Luisa Hugerth

15:30-18:00 Retrieving, annotating and analysing metabarcoding data in R

18:30 Dinner

# Thursday 10 October, 2024

### Microbial Communities Beyond The Gut - II

Chairperson: Valentina Tremaroli

8:30-9:15 Vaginal microbiome and women's health

Juan Du

Department of Microbiology, Tumor and Cell Biology, Karolinska Institutet

Sweden

9:15-9:30 Questions and discussion

9:30-10:15 Oral microbiota in health and disease

Toni Gabaldón

Institute for Research and Biomedicine (IRB), The Barcelona Institute of Science and Technology (BIST) and Barcelona Supercomputing Centre (BCS-CNS), Spain

10:15-10:30 Questions and discussion

10:30-11:00 Coffee

#### Gut Microbiota in Health and Disease - III

Chairperson: Björn Schröder

11:00-11:45 Gut microbiota in metabolic diseases

Fredrik Bäckhed

Department of Molecular and Clinical Medicine, University of Gothenburg,

Sweden

11:45-12:00 Questions and discussion

12:00-13:30 Lunch

13:30-14:30 **Poster Session II** 

poster walks in groups in parallel (5 min presentation + 5 min questions)

14:30-15:00 Free poster viewing of "posters of the day"

15:00-15:30 Coffee

15:30-16:15 Mucins and the microbiome

Malin Johansson

Department of Medical Biochemistry and Cell Biology, University of Gothenburg,

Sweden

16:15-16:30 Questions and discussion

16:30-18:30 Free time

18:30 Course Dinner

# Friday 11 October, 2024

# **Microbiota Community Perspectives**

Departure

**Chairperson:** Valentina Tremaroli

14:00

8:30-9:15 9:15-9:30	Gut virome – who is there and what are they doing?  Andrey Shkoporov  APC Microbiome Ireland and School of Microbiology, University College Cork, Ireland  Questions and discussion
9:30-10:15	Host-associated archaeome Christine Moissl-Eichinger Diagnostic and Research Institute of Hygiene, Microbiology and Environmental Medicine, Medical University Graz, Austria
10:15-10:30	Questions and discussion
10:30-11:00	Coffee
11:00-11:45	Microbiome ecology and evolution of bacterial virulence Erik Bakkeren Sir William Dunn School of Pathology, University of Oxford, UK
11:45-12:00	Questions and discussion
12:00-13:30	Lunch
13:30-14:00	Concluding remarks, evaluation, and course certificates