

FMT

CONFERENCE COPENHAGEN

12-13 SEPTEMBER
2022

GUT
MICROBIOTA
MODULATION IN
HEALTH AND DISEASE
— FAECAL MICROBIOTA
TRANSPLANTATION
AND BEYOND

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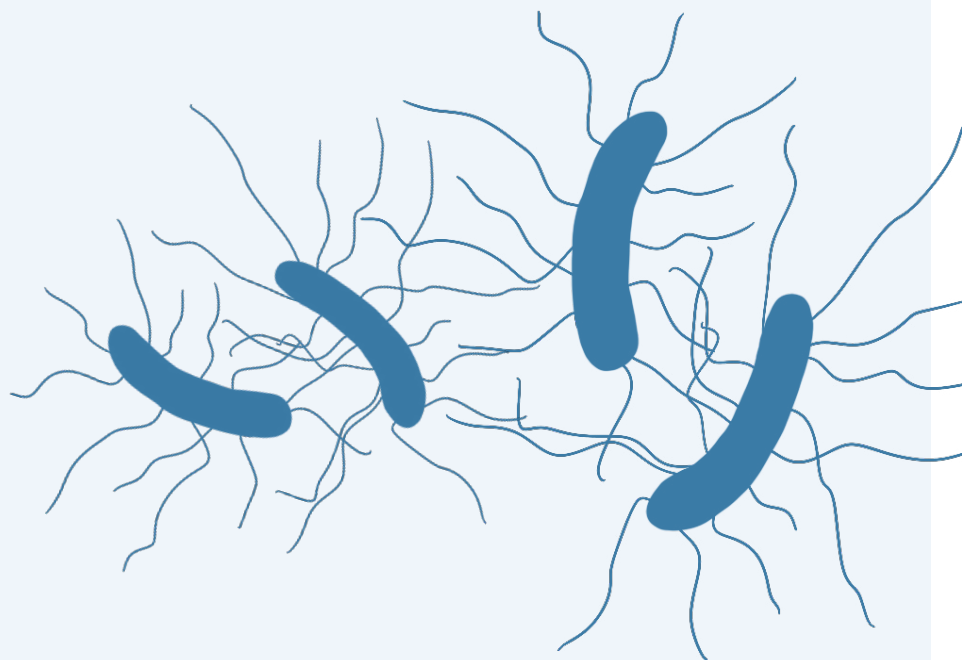
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PROGRAM

DAY 1 – MONDAY, 12 SEPTEMBER 2022

09.00 – 10.45 ■ **Onboarding, overview & lecture**

09.00 – 10.00 ■ Arrival, registration, breakfast & networking

10.00 – 10.05 ■ **Welcome**

Prof. Lars Hestbjerg Hansen, University of Copenhagen, Denmark

10.05 – 10.45 ■ **Intestinal microbiota in health and disease**

Prof. Oluf Borbye Pedersen, University of Copenhagen, Denmark

10.45 – 14.40 ■ **Clinical FMT research in Europe**

10.45 – 11.10 ■ **FMT trials in Europe**

Dr. Christian Lodberg Hoas, Aarhus University Hospital, Denmark

11.10 – 11.30 ■ Short break

11.30 – 12.00 ■ **FMT in IBD: the next frontier?**

Prof. Harry Sokol, Saint-Antoine Hospital, France

12.00 – 12.30 ■ **FMT as a therapy for Parkinson's disease**

Adj. Prof. Filip Scheperjans, Helsinki University, Finland

12.30 – 13.30 ■ Lunch

13.30 – 14.00 ■ **FMT as add-on treatment in Oncology**

Dr. Ilan Youngster, Assaf Harofeh Medical Center, Israel

14.00 – 14.30 ■ Discussion:

Challenges when conducting clinical trials in FMT

Moderator: *Dr. Josbert Keller, Haaglanden, University Hospital, the Netherlands*

14.30 – 14.40 ■ Short break

■ New block begins

■ Discussion

■ Food & networking

■ Presentation

■ Break

■ Poster & flashtalk

PROGRAM

DAY 1 – MONDAY, 12 SEPTEMBER 2022

14.40 – 15.30 ■ **FMT in the USA: research and regulation**

14.40 – 15.10 ■ **FMT in the USA: clinical use and research**

Dr. Sahil Khanna, Mayo Clinic, Rochester, MN

15.10 – 15.30 ■ **Reflections on the US Experience with Enforcement Discretion?**

CEO Julie Barrett O'Brien, OpenBiome, MA

15.30 – 16.00 ■ Coffee and Danish delights

16.00 – 17.30 ■ **Methods and the future**

16.00 – 17.00 ■ **Collecting, preserving and modifying the human microbiome. Methodological considerations and an introduction to the Microbiota Vault project**

Ph.D Rob Knight, University of California San Diego, La Jolla, CA.
(virtual participation)

17.00 – 17.30 ■ **Panel discussion on Future regulation of FMT**

Led by *Dr. Christian Lodberg Hvas, Aarhus University Hospital, Denmark*

17.30 – 17.45 ■ Wrap up Day 1

Dr. Christian Lodberg Hvas & Prof. Lars Hestbjerg Hansen

17.45 – 18.30 ■ Wine & networking followed

18.30 ■ Conference dinner

■ New block begins

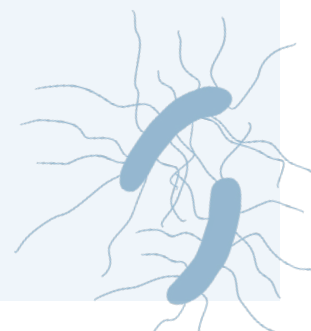
■ Discussion

■ Food & networking

■ Presentation

■ Break

■ Poster & flashtalk



PROGRAM

DAY 2 – TUESDAY, 13 SEPTEMBER 2022

- 08.00 – 09.00 ■ Registration, breakfast & networking
- 09.00 – 10.30 ■ Early-stage researchers – Flash talks and poster session**
Coordinated by *Dr. Frederik Cold, University of Copenhagen* and *Dr. Simon Mark Dahl Baunwall, Aarhus University*
- 09.00 – 09.45 ■ **Flash talks from early-stage researchers**
- 09.45 – 10.30 ■ Poster session
- 10.30 – 11.00 ■ Coffee break
- 11.00 – 12.30 ■ How can we change the gut microbiome and its metabolic activities?**
- 11.00 – 11.30 ■ **Neonatal seeding: nature's own FMT?**
Dr. Katri Korpela, Helsinki University, Finland
- 11.30 – 12.00 ■ **Metabolic activities of gut microbes**
Prof. Tine Rask Licht, DTU Food, Danish Technical University, Denmark
- 12.00 – 12.30 ■ **The gut virome: mediator of intestinal homeostasis?**
Prof. Dennis Sandris Nielsen, University of Copenhagen, Denmark
- 12.30 – 13.30 ■ Lunch
- 13.30 – 15.00 ■ FMT and microbiome research – The global perspective**
- 13.30 – 14.00 ■ **Microbiome restoration in global health: evidence and ongoing research in malnutrition, stunting and diarrheal diseases**
Dr. Majdi Osman, Clinical Director and Global Health Lead, OpenBiome, Boston, MA

- New block begins ■ Discussion ■ Food & networking
■ Presentation ■ Break ■ Poster & flashtalk

PROGRAM

DAY 2 – TUESDAY, 13 SEPTEMBER 2022

- 14.00 – 14.30 ■ **Denmark as a leading country in FMT research: How do we get there?**
Dr. Simon M. Dahl Baunwall, Aarhus University, Denmark
- 14.30 – 15.00 ■ **Public-private partnerships in microbiome research: Bridging the gap from academia to industry**
Adam Baker, Director of science, Chr. Hansen, Denmark
- 15.00 – 15.30 ■ Coffee break – Danish delights
- 15.30 – 16.15 ■ **Beyond FMT: Improved and safe microbiota modulation through virome/bacteriophage transfer**
- 15.30 – 15.50 ■ **Bacteriophage therapy: Presentation of ongoing studies and regulatory hurdles**
Dr. Frederik Cold, University of Copenhagen, Denmark
- 15.50 – 16.10 ■ **Next generation probiotics**
Dr. Andreas Munk Petersen, Hvidovre Hospital, Denmark
- 16.10 – 16.30 ■ **Poster prizes and conference wrap-up**
Frederik Cold, Simon M. Dahl Baunwall, Christian Lodberg Hvas & Lars Hestbjerg Hansen
- 16.30 ■ Goodbye & thank you – we wish you a nice trip home

■ New block begins

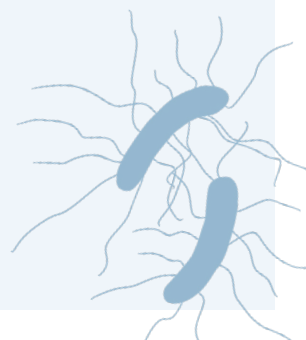
■ Presentation

■ Discussion

■ Break

■ Food & networking

■ Poster & flashtalk



SPEAKERS



Lars Hestbjerg Hansen

*Professor
University of Copenhagen,
Denmark*

Prof. Lars Hestbjerg Hansen (LHH) is research group leader at the Microbial Ecology and Biotechnology section at the University of Copenhagen. He is a dedicated researcher with extensive experience in environmental and human associated microbiome research. He is determined to expand his research into healthcare applications; driven by the firm belief that microbial communities are the source of human health. The Innovation Fund Denmark funded project Microhealth collaboration makes use of state-of-the-art laboratory facilities for microbiological and molecular research, and brings together great minds in the field. The collaboration is the beginning of an adventure of discovery that will boost FMT research in Denmark and is driven to find solutions to modern lifestyle disorders.



Christian Lodberg Hvas

*Associate professor, MD,
PhD
Aarhus University
Hospital, Denmark*

Associate professor, PhD, Christian Lodberg Hvas from Aarhus University Hospital is a leading Danish FMT researcher. He organised national and international working group symposia, is a board chair for the Danish Society for Clinical Nutrition, and has served as chair in National working groups for clinical guidelines under Danish Society for Gastroenterology and Hepatology. He is leading the Centre for faecal microbiota transplantation (CEFTA) - a five-year research and innovation project supported by Innovation Fund Denmark, with the aim to consolidate microbiota-based therapies in clinical practice, and to investigate microbiological and health economic consequences of using faecal microbiota transplantation (FMT).



Oluf Pedersen

*Professor
Gentofte University
Hospital, Copenhagen,
Denmark*

Prof. Oluf Pedersen from Gentofte University Hospital and Novo Nordisk Foundation Center for Basic Metabolic Research, University of Copenhagen, is recognized as a pioneer in studies of the human genome and intestinal microbiome of common metabolic disorders. He has led several national and international research consortia and research centers of excellence. The current research focus includes molecular and physiological studies of recently discovered polypeptide hormones synthesized by the human gut microbiome.

SPEAKERS CONTINUED...



Harry Sokol
MD, PhD
Sorbonne Université,
Saint-Antoine Hospital,
France

Harry Sokol, is Professor in the Gastroenterology department of the Saint Antoine Hospital (APHP, Paris, France), the co-director of the Microbiota, Gut & Inflammation team (INSERM Sorbonne Université) and group leader in Micalis institute (INRAE). He is an internationally recognized expert in Inflammatory Bowel Disease (IBD) and in gut microbiota fields. He published over 280 papers on these topics in major journals. Currently, his work focuses on deciphering the gut microbiota-host interactions in health and diseases, to develop innovative treatments. He is the current president of the French group of Fecal Microbiota Transplantation (www.gftf.fr), the coordinator of the Paris Center for Microbiome Medicine (PaCeMM (www.fhu-pacemm.fr/) FHU and the FMT center of APHP Paris' hospitals.



Filip Scheperjans
Adjunct professor
Helsinki University Ho-
spital, Finland

Filip Scheperjans, MD is adjunct professor of neurology and research group leader at the Department of Neurology of Helsinki University Hospital. He pioneered the research on gut microbiota in Parkinson's disease through the first publication ever to assess gut microbiota composition in Parkinson's vs. control subjects. His research group is currently conducting a first randomized double-blind controlled trial of fecal microbiota transplantation in PD. His work has led to several patents that are currently the basis for the development of next generation bacterial diagnostics and treatments for Parkinson's disease. For his groundbreaking work in this field, he was awarded the Uschi Tschabitscher Prize for Young Neurologists by the European Academy of Neurology in 2014, the young researcher award of the Finnish Neurological Society in 2019, and the Research Prize of the Wilhelm and Else Stockmann Foundation in 2021.



Ilan Youngster
Professor
Shamir Medical Center,
Israel

Prof Ilan Youngster is director of Pediatric Infectious Diseases and Head of the Center for Microbiome Research, both in Shamir medical Center, Israel. Early in his career he became immersed in the world of microbiome studies, and was the pioneer in developing an orally administered formulation, thus making the FMT procedure safer and more accessible to patients in need. Holding a masters degree in research methodology, he has since led several translational studies examining the safety and efficacy of fecal transplants as a treatment for *Clostridioides difficile* as well as for several novel indications including metabolic and immunologic disorders. His studies have been published in leading medical Journals. Ilan is an associate professor in pediatrics at Tel-Aviv University.

SPEAKERS CONTINUED...



Josbert J. Keller
MD, PhD
Haaglanden Medical Center and Leiden University Medical Center, the Netherlands

Josbert Keller was the principal investigator of the first trial comparing FMT with conventional antibiotic therapy for patients with recurrent *Clostridium difficile* infection. In 2015 he was the co-founder of the Netherlands Donor Feces Bank at the Leiden University Medical Center. He is currently involved in research projects addressing stool banking and the effects of FMT for IBD and other disorders, and initiated an European FMT working group. He is a member of the European Helicobacter and Microbiota Study Group (EHMSG).

Since 2009 he works as general gastroenterologist in The Hague, currently at the Haaglanden Medical Center.



Sahil Khanna
MD
Mayo Clinic, Rochester, MN, USA

Dr. Sahil Khanna is a Professor of Medicine in the Division of Gastroenterology and Hepatology at Mayo Clinic, Rochester, MN. His research and clinical interests include Epidemiology, Outcomes and Emerging Therapeutics for *Clostridioides difficile* infection, an arena in which he has had numerous publications and presentations. He is directing the Comprehensive Gastroenterology Interest group, *C. difficile* Clinic, Fecal Microbiota Transplantation program and *C. difficile* related Clinical Trials at Mayo Clinic, Rochester, MN. He has over 150 publications and serves as reviewer and on the editorial board of several journals. He has won numerous awards including the Miles and Shirley Fiterman Award, Mayo Brothers Distinguished Fellowship Award, Donald C. Balfour Mayo Clinic Alumni Association Research Award and Hartz Foundation Young Investigators' Scholarship.



Julie O'Brien
Chief Executive Officer
Open Biome, Cambridge, MA, USA

Julie Barrett O'Brien is the Executive Director of OpenBiome, an independent nonprofit accelerating bold discoveries in microbiome science to improve health for all. OpenBiome's solutions build upon its pioneering work with microbiome-based healthcare - catalyzing cutting edge research, advancing FMT treatment, and expanding equitable access to the rich diversity of the microbiome.

An accomplished leader in global health, Julie has served on the executive leadership team of Management Sciences for Health and Grassroot Soccer, overseen communication and advocacy efforts in more than 55 countries, and provided strategic counsel to Afghanistan's Ministry of Health (2006-2016). A distinguished lecturer at Yale's Jackson Institute for Global Affairs and a guest lecturer at Boston University's School of Public Health, Julie holds an MPA from Harvard Kennedy School and a BA from the University of San Diego.

SPEAKERS CONTINUED...



Rob Knight
MD, PhD
*University of California,
San Diego, USA*

Rob Knight is the founding Director of the Center for Microbiome Innovation and Professor of Pediatrics, Bioengineering, and Computer Science & Engineering at UC San Diego. He is the Wolfe Family Endowed Chair in Microbiome Research. He is a Fellow of the American Association for the Advancement of Science and of the American Academy of Microbiology, and received the 2019 NIH Director's Pioneer Award and 2017 Massry Prize. His lab has produced many of the software tools and laboratory techniques that enabled high-throughput microbiome science, including QIIME and UniFrac. His work has linked microbes to a range of health conditions, enhanced our understanding of microbes in many environments, and made high-throughput sequencing accessible to thousands of researchers around the world.



Frederik Cold
MD, PhD
*University of Copenhagen,
Denmark*

MD Frederik Cold has recently received his PhD from the Department of Plant and Environmental Sciences at Copenhagen University. He has primarily studied the effects of fecal microbiota transplantation as a treatment of various gastrointestinal diseases focusing on clinical effects, safety and changes in the gut microbiome following treatment. He is now back in clinical practice at Copenhagen University Hospital Herlev as part of his training to become a specialist in medical gastroenterology and hepatology. With colleagues at Copenhagen University Hospital Hvidovre and Herlev he is an integral part of new clinical research projects investigating the potential for bacteriophage therapy in Denmark.



**Simon Mark Dahl
Baunwall**
MD
*Aarhus University
Hospital, Denmark*

Simon Mark Dahl Baunwall is a PhD fellow and MD at the Department of Hepatology and Gastroenterology at Aarhus University Hospital and the Department of Clinical Medicine, Aarhus University. His focus is on faecal microbiota transplantation (FMT) primarily for *Clostridioides difficile* infection (CDI). He has been vital to forming Centre for fecal microbiota transplantation (CEF-TA) and building the infrastructure to meet the large-scale demand for routine FMT. He is involved in numerous clinical trials testing FMT and is a part of the European collaboration, EurFMT.

SPEAKERS CONTINUED...



Katri Korpela
MD
University of Helsinki,
Finland

Katri Korpela is a principal investigator in the Faculty of Medicine, University of Helsinki, focusing on the ecology of the infant gut microbiota and its effects on long-term health of the host. She has characterized factors that alter the natural development of the gut microbiota in early life, discovering that the most important microbes come from the mother at birth, which has been verified in a clinical FMT trial. She is an ecologist and a microbiologist, applying the theoretical concepts and analytical methods of ecology to understand the complex functioning of the microbial ecosystem in the human gut. The aim of her research is to identify ways to modulate the gut microbiota and restore its natural biodiversity in children with disturbed gut microbiota due to e.g. C-section birth or antibiotics to promote long-term health.



Tine Rask Licht
Professor, PhD
Danish Technical
University, Denmark

Professor Tine Rask Licht is Deputy Head of the National Food Institute, Technical University of Denmark, and leader of the Research Group on Gut, Microbes and Health at this institute. Her research focus on effects of diet on the intestinal microbiota, studied in humans, animal models, and in vitro systems. Her group has contributed significantly to the understanding of the impact of diet and breastfeeding on the microbiota in infants, and its implications for health. Other contributions include identification of the link between intestinal transit time and bacterial metabolism in the human gut, and the discovery that metabolic phenotypes of mice are influenced by non-coprophagic spread of gut microbes. She is currently involved in a number of ongoing trials applying FMT, and heading a major effort addressing the Interaction between diet, Microbiome and Abiotic conditions in the gut, funded by the Novo Nordisk Foundation.



Dennis Sandris Nielsen
Professor
University of Copenhagen,
Denmark

Professor Dennis S. Nielsen is leading the “Microbial biodiversity and functionality in food and humans” research group at Department of Food Science, University of Copenhagen. The overall research focus is microbial ecology and interactions between microbes and their surroundings – such as diet-microbe-host interactions in the human gastrointestinal tract (GIT). During the last 5-6 years the role of bacteriophages in the GIT and the possibility for manipulating the composition and function of the gut microbiome using bacteriophages and fecal virome transplants (FVT). He is heading several research project funded by the Lundbeck Foundation, The Novo Nordisk Foundation and the Independent Research Fund Denmark aiming at bringing FVT from the laboratory to the clinic as well as the farm stable.

SPEAKERS CONTINUED...



Majdi Osman
MD
OpenBiome, Boston, MA,
USA

Dr. Majdi Osman, MD MPH: Dr. Osman is an infectious disease physician and Chief Medical Officer at OpenBiome. OpenBiome is a nonprofit fecal microbiota transplant (FMT) stool bank providing treatments for physicians caring for patients with C difficile infection and for clinical trials investigating the use of FMT in other indications. OpenBiome has supported over 30 clinical trials in a range of diseases including antimicrobial resistant infections, inflammatory bowel disease, and multiple sclerosis. Dr. Osman is principal investigator the THRIVE study, the first FMT trial in Africa, which will look at microbiome restoration as a therapeutic intervention for children with refractory severe acute malnutrition. OpenBiome aims to support access to FMT for clinicians and researchers globally and has provided training on setting up FMT stool banks to institutions around the world. Dr. Osman is also a visiting scientist at Harvard Medical School and the Wellcome Sanger Institute.



Adam Baker
Director of Science,
Human Health
Chr Hansen, Denmark

Adam Baker PhD. Is the Director of Science at Chr Hansen A/S responsible for the research of current and next-generation probiotics, and building a strong portfolio of scientific data. The focus is on the key role of bacteria throughout life and how bacteria play key roles in health and disease. In particular, the interactions between the bacteria and the host microbiome at a molecular and clinically functional level. Run and support multiple external grants and research collaborations with universities and clinical groups. His goal is to develop new strategies for supporting different aspects of health through microbiome based therapies.



Andreas Munk Petersen
MD, PhD
Hviovre Hospital,
Denmark

Associate Research Professor, MD, PhD Andreas Munk Petersen is a gastroenterologist and research leader in the field of clinical microbiome studies involving placebocontrolled trials of clinical effects of probiotics and fecal microbiota transplants in numerous disease entities. These research activities has lead to the formation of Copenhagen Center for Clinical Microbiome Studies at Copenhagen University Hospital Hvidovre.

EARLY-STAGE RESEARCHERS

#01-10 ▪ FLASH-TALKS WITH POSTERS

#10-17 ▪ POSTERS

#01 **Microbiota and mucosal gene expression findings from a randomized, double-blinded fecal microbiota transplantation trial on chronic pouchitis**

Anna Hartikainen · Human Microbiome Research Program, Faculty of Medicine, University of Helsinki, Finland

#02 **Faecal microbiota transplantation does not eradicate *Clostridioides difficile* from the intestinal tract of patients with multiple recurrent infections**

Bas Groenewegen · Netherlands Donor Feces Bank, Dept. of Medical Microbiology, LUMC, Leiden, the Netherlands

#03 **Intestinal Microbiota Transplant for Recurrent *Clostridioides difficile* Infection is Associated with Restoration of Microbial Arylsulfatases and Sulfatide Degradation**

Benjamin Mullish · Department of Metabolism, Digestion and Reproduction, Imperial College London, London, UK

#04 **Weight Regain Attenuation with Autologous Fecal Microbiota Transplantation**

Ehut Rinott · Department of Internal Medicine, Hadassah Medical Center, Jerusalem, Israel

#05 **Resolution rates in Clinical trials for Microbiota restoration for recurrent *Clostridioides difficile* infection: An Updated Systematic Review and Meta-analysis**

Tariq Raseen · Division of Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN, USA

#06 **Drivers and determinants of microbial strain dynamics after fecal microbiota transplantation**

Simone Li · University of Queensland, Australia

EARLY-STAGE RESEARCHERS

#01-10 ▪ FLASH-TALKS WITH POSTERS

#10-17 ▪ POSTERS

#07 **Development of Lyophilized Faecal Microbiota Capsules for Clinical Research**

Koen Wortelboer · Department of Experimental Vascular Medicine, Amsterdam University Medical Centres – Location AMC, Amsterdam, the Netherlands

#08 **A randomised placebo-controlled trial of faecal microbiota transplantation in patients with chronic pouchitis (Micro-Pouch)**

Sabrina Kousgaard · Department of Gastrointestinal Surgery, Aalborg University Hospital, Aalborg, Denmark

#09 **Safety and efficacy of FMT for active peripheral psoriatic arthritis: an exploratory randomised placebo-controlled trial (FLORA)**

Maja Kragenæs · Department of Rheumatology, Odense University Hospital, Denmark

#10 **New insights into the risk of *Helicobacter pylori* transmission by faecal microbiota transplantation**

Anne Grosen · Department of Clinical Immunology, Aarhus University Hospital, Denmark

#11 **Faecal microbiota transplantation: effective as eradication of multidrug resistant bacteria? Plus a look into the resistome**

Sam Nooij · Netherlands Donor Feces Bank & Center for Microbiome Analyses and Therapeutics, Department of Medical Microbiology, Leiden University Medical Center, Leiden, the Netherlands

#12 **Wellbeing Growth Charts for Infant Gut Development – impact of birth mode and microbiota-targeting treatments**

Brandon Hickman · Department of Bacteriology and Immunology, Immunobiology Research Program, 00014 University of Helsinki, Finland

EARLY-STAGE RESEARCHERS

#01-10 ▪ FLASH-TALKS WITH POSTER

#10-17 ▪ POSTER

#13 **The Comeback Study, Fecal microbiota transplantation for Myalgic Encephalomyelitis/Chronic Fatigue Syndrome – First Phase-II Clinical Trial**

Linn Skjevling · University Hospital of North Norway, UiT The Arctic University of Norway

#14 **A double-blind, placebo-controlled, national, multi-center study of the efficacy between donor and autologous FMT: a 12 month follow-up**

Peter Holger Johnsen · University Hospital of North Norway Harstad, Harstad, Norway

#15 **FMT from caloric-restricted donors: novel insights**

Alberto Diaz Ruiz · Nutritional Interventions Group, Precision Nutrition and Aging, Madrid Institute for Advanced Studies - IMDEA Food, CEI UAM+C-SIC, Madrid, Spain. Funding: Ministerio de Ciencia, Innovación y Universidades (PID2019-106893RA-100 to A.D.R.)

#16 **Ongoing development of a GMP-complaint lyophilised faecal microbiota capsule and clinical outcomes in recurrent Clostridioides difficile infection**

Blair Merrick · Guy's and St Thomas' NHS Foundation Trust and King's College, London, UK

#17 **Challenges and costs of donor screening for fecal microbiota transplantations**

Melanie Bénard · Department of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism (AGEM), Amsterdam UMC, University of Amsterdam, Amsterdam, The Netherlands

CONFERENCE ORGANISATION

ORGANISING COMMITTEE

Lars Hestbjerg Hansen

Professor and research group leader at the Microbial Ecology and Biotechnology section at the University of Copenhagen

Christian Lodberg Hvas

Associate professor, Aarhus University, MD, PhD, and leader at the Centre for faecal microbiota transplantation (CEFTA) at Aarhus University Hospital

John Jacobsen

Co-Founder & Managing Director, Education Centre for Sustainable Growth

Simon Mark Dahl Baunwall

MD, Aarhus University, founder and researcher in the Centre for faecal microbiota transplantation (CEFTA) at Aarhus University Hospital

Frederik Cold

MD, PhD, University of Copenhagen, Copenhagen University Hospital

Lisbeth Axelsen

Conference Secretary, University of Copenhagen