

International Society  
of **Microbiota**

# TARGETING MICROBIOTA

Towards Clinical  
Revolution

**10<sup>TH</sup>**  
WORLD  
CONGRESS

OCT. 17>19  
— 2023 —  
**VENICE**  
**ITALY**

**Program**  
2023

10<sup>th</sup> World Congress on

## Targeting Microbiota

October 17-19, 2023 – Isola di San Servolo, Venice, Italy

On behalf of the International Society of Microbiota, we are pleased to inform you that the 10th Annual World Meeting on Targeting Microbiota will be held on October 17-19 in Venice, Italy.

During Targeting Microbiota 2023, the following topics will be discussed:

- *Targeting Microbiota in Disease: Recent Advances and Strategies*
- *Environment, Lifestyle & Microbiota: A "One Health" Approach*
- *Microbiota & The Medicine of Tomorrow: Preventative & Therapeutic Strategies*
- *8 Minutes - Pitch: Dedicated to Start-ups, Academics, Industries & Investors*

A workshop will be organized 1 day before the Congress, on October 17:

### “Microbiota Analysis Kits & Probiotics Formulation for Humans & Animals”

- How to develop microbiota analysis kit for humans and animals?
- Formulation of probiotics strains for humans and animals

I hope to meet you this October to capture moments of conviviality and scientific inspiration by the many and best scientists we have in the world studying the various aspects of the microbiota.

All our warmest regards,



**Prof. Peter C. Konturek**  
Teaching Hospital of the University of Jena,  
Germany  
President of ISM



**Prof. Maria Cecilia Giron**  
University of Padova, Italy  
Local Organizer of Targeting Microbiota 2023

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# TARGETING MICROBIOTA

## Towards Clinical Revolution

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Under the local organization of



UNIVERSITÀ  
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### ISM Speakers 2023



**COVID 19 and Microbiota - A Story with a Long Tail**  
**Peter C. Konturek**, President of ISM from Teaching Hospital of the University of Jena, Germany



**Microbiota & Myelination: The Latest Findings**  
**Maria Cecilia Giron**, University of Padova, Italy



**Domestic Cleaning and Human Microbiome - Is There a Link?**  
**Markus Egert**, Furtwangen University, Germany



**Mapping the Kitchen Microbiota in Five European Countries**  
**Birgitte Moen**, Nofima, Norway



**Environmental Drivers of Avian Enteric Neuroendocrine Plasticity in the Context of Foodborne Pathogen Carriage**  
**Joshua Lyte**, United States Department of Agriculture, Agricultural Research Service, USA



**Skin Microbial Changes during Space Flights**  
**Pamela Tozzo**, University of Padova, Italy



**Gut Microbiota and Cancer Immunotherapy**  
**Andrew Y. Koh**, University of Texas Southwestern Medical Center, USA



**Computational Modeling Microbial Community Networks: Pros and Con**  
**Barbara Di Camillo**, University of Padova, Italy



**Gut microbiota and prebiotics in Parkinson's disease: The RESISTA-PD Trial**  
**Andreas Schwierzt**, Institute of Microecology, Germany



**Microbiome Engineering: Reprogramming microbes to rewire host-microbiome interactions**  
**Matthew Chang**, National University of Singapore, Singapore



**Multi-omics in Colon Cancer and Role of the Microbiome**  
**Souhaila Al Khodor**, Sidra Medicine, Qatar



**Marine Heatwaves and Microbiome in the Mediterranean Sea: Insights From Non Model Organism Manila Clam**  
**Maria Elena Martino**, University of Padova, Italy



**Microbiota Modulation: The Missing Link**  
**Marvin Edeas**, Founder & Chairman of ISM Committee, Institut Cochin, INSERM, Université de Paris, France



**Engineered Escherichia Coli for the in Situ Secretion of Therapeutic Nanobodies in the Gut**  
**Cammie Lesser**, Harvard Medical School, USA



**Microbiota and Interactions with Gut and the Enteric Nervous System**  
**Karl-Herbert Schäfer**, Kaiserlautern University of Applied Sciences, Germany



**Anthropology and Research on the Microbiome: Addressing Future Health**  
**Roberta Raffaetà**, Università Ca' Foscari Venezia, Italy



**Gut Microbiota & Microbiota-Derived Metabolites Role in Endometriosis**  
**Ramakrishna Kommagani**, Baylor College of Medicine, USA



**Fecal Gut Microbiota and Metabolite Signatures as Biomarkers for Gastrointestinal Disorders**  
**Lena Öhman**, University of Gothenburg, Sweden



**Arresting microbiome development limits immune system maturation and resistance to infection in mice**  
**Michael Silverman**, University of Pennsylvania, USA



**Microbiota, Enteric Nervous and Immune Systems: Barrier Defenses against Foodborne Pathogens Carriage in Poultry**  
**Valentina Caputi**, United States Department of Agriculture, Agricultural Research Service, USA



**Evaluation of Transitional Changes Shaping the Infants' Gut Microbiota in Early Life: The CIEMME Study**  
**Vincenzo Di Pilato**, University of Genoa, Italy



**Clinical Applications of Gut Microbiota: Gut Microbiome for Prediction of Colorectal Neoplasia**  
**Francis K L Chan**, The Chinese University of Hong Kong, China



**Effect of Gut Microbiota Regulation on Non-Alcoholic Fatty Liver Disease**  
**Yu Chen**, The 7th Affiliated Hospital of Southern Medical University, China

[www.microbiota-site.com](http://www.microbiota-site.com)

# Day 1 – October 17, 2023

## ISM 2023 Workshop

### Workshop

## Microbiota Analysis Kits & Probiotics Formulation for Humans & Animals

The aim of this workshop is to elaborate the curation of microbiota research, implementation and product development as a business platform. It will also explain the microbiota analysis kit (self-test kit) development and its content for human and animal use. The workshop will also dedicate time to discuss with attendees the strategies to overcome the barriers in microbiome businesses, as well as all strategies to have a successful launch.

### Workshop Outline:

13h00 - **Welcoming of Attendees & Badges distribution**

14h00 – **Session 1: How to develop microbiota analysis kit for humans and animals?**

- a- *Microbiota analysis kit : Introduction*
  - Definition and content of the microbiota analysis kit (what it contains inside)
  - How it works (technical process); from sample collection to result report
  - Scientific background for microbiota analysis kit
  - Insight into current microbiota analyzing companies
  - Challenges and limitations of microbiota analysis kit
  - Provision of recommendations and solutions
  
- b- *Practical aspects of kits development*
  - Microbiota-based scientific literature search, storage and curation
  - Generating knowledge database
  - Developing product prototypes
  - Integrating the knowledge database to dashboard (website)
  - Launching the product to potential consumers (B2C, B2B, etc.)

16h00 – **Session 2: Formulation of probiotics strains for humans and animals**

- Scientific literature (clinical studies) search, storage and curation
- Probiotic strains selection process
- Probiotic dose determination
- Inclusion of minerals and vitamins in probiotic
- Inclusion of prebiotic in probiotic (as symbiotic) and its scientific basis
- Regulatory aspect of probiotic, such as safety, claim, labeling etc.

18h00 – **End of the Workshop**

### WORKSHOP AGENDA



**Dr. Tewodros Debebe,**  
PhD Scientific Officer  
International Society of Microbiota

Day 2 - Wednesday, October 18, 2023

8h00 **Materials Distribution & Welcome Coffee**

8h50 **Welcome Note of Targeting Microbiota 2023**

*Peter C. Konturek, President of ISM, Teaching Hospital of the University of Jena, Germany*

*Maria Cecilia Giron, Local Organizer of Targeting Microbiota 2023, University of Padova, Italy*

## **Session 1: Targeting Microbiota in Disease: Recent Advances and Strategies**

*Talk duration: 20 minutes*

*Chairpersons: Peter C. Konturek and Maria Cecilia Giron*



9h00 – **COVID 19 and Microbiota – A Story with a Long Tail**

*Peter C. Konturek, President of ISM from the Teaching Hospital of the University of Jena, Germany*



9h20 – **Microbiota and Interactions with the Enteric Nervous System**

*Karl-Herbert Schäfer, Kaiserlautern University of Applied Sciences, Germany*



9h40 – **Arresting Microbiome Development Limits Immune System Maturation and Resistance to Infection in Mice**

*Michael Silverman, University of Pennsylvania, USA*



10h00 – **Evaluation of Transitional Changes Shaping the Infants' Gut Microbiota in Early Life: The CI.EMME Study**

*Vincenzo Di Pilato, University of Genoa, Italy*

**10h20 Panel Discussion**

*10h35 – 11h15 Coffee Break, Networking, & Poster Session*



11h15 – **Gut Microbiota & Microbiota-Derived Metabolites Role in Endometriosis**

*Ramakrishna Kommagani, Baylor College of Medicine, USA*



11h35 – **Microbiota & Myelinization: The Latest Findings**

*Maria Cecilia Giron, University of Padova, Italy*

**11h55 Panel Discussion**

**12h05 Short Oral Presentations (8 minutes + 2 minutes for discussion)**

**Diabetes is Associated with Increased Intestinal Permeability of Bacterial Metabolites and Changes in Intestinal Ras**

*Kinga Jaworska, Medical University of Warsaw, Poland*

**Enterococcus Faecalis Induces Cardiometabolic Alterations Accompanied by Redox Imbalance and Impairment of Endothelial Function**

*Ariela Måina Boeder, Karolinska Institute, Sweden*

**Safety and Feasibility of Kefir in the Critically ill**

*Lioudmila Karnatovskaia, Mayo Clinic, USA*

*12h35 – 14h00 Lunch Break, Networking, & Poster Session*

*Chairpersons: Markus Egert and Karl-Herbert Schäfer*



**14h00 – Clinical Applications of Gut Microbiota: Gut Microbiome for Prediction of Colorectal Neoplasia**

*Francis K L Chan, The Chinese University of Hong Kong, China*



**14h20 – Environmental Drivers of Avian Enteric Neuroendocrine Plasticity in the Context of Foodborne Pathogen Carriage**

*Joshua Lyte, United States Department of Agriculture, Agricultural Research Service (USDA), USA*



**14h40 – Microbiota, Enteric Nervous and Immune Systems: Barrier Defenses against Foodborne Pathogens Carriage in Poultry**

*Valentina Caputi, United States Department of Agriculture, Agricultural Research Service (USDA), USA*



**15h00 – Anthropology and Research on the Microbiome: Addressing Future Health**

*Roberta Raffaetà, Università Ca' Foscari Venezia, Italy*

**15h20 Panel Discussion**

*15h35 – 16h15 Coffee Break, Networking, & Poster Session*

## Session 2: Environment, Lifestyle & Microbiota: A "One Health" Approach

Talk duration: 20 minutes



16h15 – **Domestic Cleaning and Human Microbiome - Is There a Link?**

**Markus Egert**, Furtwangen University, Germany



16h35 – **Mapping the Kitchen Microbiota in Five European Countries**

**Birgitte Moen**, Nofima — Norwegian Institute of Food, Fisheries and Aquaculture Research, Norway



16h55 – **Mapping the Kitchen Microbiota in Five European Countries**

**Maria Elena Martino**, University of Padova, Italy

17h15 **Panel Discussion**

17h30 **Short Oral Presentations (8 minutes + 2 minutes for discussion)**

**Development of an in Vitro Model for the Study of Multispecies Biofilms in Real Time: Experimental and Clinical Applications for the Oral Microbiota**

*María D. Ferrer, Fisabio Foundation, Spain*

**Harnessing Halophilic Fructosyltransferase for Unique Prebiotics: A Promising Approach in Disease Management**

*Nayla Munawar, United Arab Emirates University, United Arab Emirates*

**The Role of Microbiome in Multiple Sclerosis: A Multidimensional Approach**

*Laura Barcutean, University of Medicine, Pharmacy, Science and Technology George Emil Palade Targu Mures, Romania*

18h00 **End of Congress Day 1**

20h00 **Meet the Speakers Dinner (Reserved for ticket holders only)**

*The dinner will be held at Robe da Matti Restaurant, at Isola di San Servolo.*

*If you wish to participate at the dinner, please [register here](#).*

Day 3 - Thursday, October 19, 2023

8h00 Opening of Day 3

## Session 3: Microbiota & The Medicine of Tomorrow: Preventative & Therapeutic Strategies

Chairpersons: Marvin Edeas and Cammie Lesser



8h30 – **Microbiota Modulation: The Missing Link**

**Marvin Edeas**, Founder & Chairman of ISM's Committee, Institut Cochin, INSERM, Université de Paris, France



8h50– **Fecal Gut Microbiota and Metabolite Signatures as Biomarkers for Gastrointestinal Disorders**

**Lena Öhman**, University of Gothenburg, Sweden



9h10 – **Gut microbiota and prebiotics in Parkinson's disease: The RESISTA-PD Trial**

**Andreas Schwartz**, Institute of Microecology, Germany

9h30 **Panel Discussion**

9h45 **Short Oral Presentations (8 minutes + 2 minutes for discussion)**

**Persistent Homology to Uncover Differences in the Gut Microbiome of Parkinson's Disease Patients and Healthy Controls**

*Eva-Katharina Beate Lymberopoulos, University College London, United Kingdom*

**Microbiota Manipulation as a Potential Therapeutic Strategy to Improve Clinical Symptoms in Cdk15 Deficiency Disorder**

*Francesca Damiani, Scuola Normale Superiore, Italy*

**Endolysin Inhibits Skin Colonization by Patient-Derived Staphylococcus Aureus and Malignant T Cell Activation in Cutaneous T Cell Lymphoma**

*Niels Odum, University of Copenhagen, Denmark*

**The Potential of Streptococcus Thermophilus Iha318 on Hyaluronic Acid Production and Relieving Dry Eye Syndrome**

*Shao-Yu Lee, Percheron Bioceutical, Taiwan*

**Investigating the Extent That Digestion and Fermentation of Postbiotic-Rich Fermented Food Impacts Potential Health Benefits Conferred by Specific Postbiotic Strains**

*Emma Scott, UGent, Belgium*

10h35 – 11h15 Coffee Break, Networking, & Poster Session



11h15 – **Multi-omics in Colon Cancer and Role of the Microbiome**

**Souhaila Al Khodor**, Sidra Medicine, Qatar





11h35 – **Engineered Escherichia coli for the in Situ Secretion of Therapeutic Nanobodies in the Gut**  
**Cammie Lesser**, *Massachusetts General Hospital/Harvard Medical School, USA*



11h55 – **Microbiome Engineering: Reprogramming microbes to rewire host-microbiome interactions**  
**Matthew Chang**, *National University of Singapore, Singapore*

12h15 **Panel Discussion**

12h25 – 13h35 *Lunch Break, Networking, & Poster Session*

*Chairpersons: Andreas Schwiertz and Lena Öhman*



13h45 – **Gut Microbiota and Cancer Immunotherapy**  
**Andrew Y. Koh**, *University of Texas Southwestern Medical Center, USA (online talk)*



14h05 – **Skin Microbial Changes during Space Flights**  
**Pamela Tozzo**, *University of Padova, Italy*



14h25 – **Computational Modeling Microbial Community Networks: Pros and Cons**  
**Barbara Di Camillo**, *University of Padova, Italy*

14h45 **Panel Discussion**

14h55 **Short Oral Presentations: 8 Minutes-Pitch: Dedicated to Start-ups, Academics, Industries & Investors**

**Physicochemical and Molecular Characterization of Several Cutaneous Bacteria's Adhesion Mechanisms**

*Ahmad Khodr, L'Oréal R&I, France*

**A Novel Approach for Strain-Level Engraftment Analysis in FMT and LBP Treatments**

*Pernille Neve Myers, Clinical Microbiomics, Denmark*

**Topical Administration of *Lactiplantibacillus Plantarum* (SkinDuo™) Serum Improves Anti-Acne Properties**

*Christine Podrini, The BioArte Ltd, Malta*

15h25 – 15h55 *Coffee Break, Networking, & Poster Session*

**Akkermansia Muciniphila and Its Membrane Protein Promotes Gut Barrier Integrity and Epithelial Wound Healing via MicroRNA-143/145**

*Qiaozhu Su, Queen's University Belfast - SBS, United Kingdom*

## **Vaginal Microbiome Study Provides the Identification of the Biomarker Species in Polycystic Ovarian Syndrome (PCOS) Metagenome**

*Anjana Dhirajlal Ghelani, Shree Ramkrishna Institute, Sarvajanic Univerisity, India*

## **Are Probiotics a Safe and Efficient Potential Alternative to Metronidazole for the Treatment of Bacterial Vaginosis? A Unique Preliminary Study**

*Tansu Kucuk, Bellavie, Belgium*

## **Gender-Dependent HCC Development in X/MYC Mouse Model**

*Francesca Guerrieri, Inserm, France*

## **Riboflavin (Vitamin B2) Auxotrophy of Bacteria in the Human Oral Cavity**

*Nadja Schwendenmann, Furtwangen University of Applied Sciences, Germany*

## **The Impact of Mouthwash on Oral Microbiome and Biofilm Formation**

*Jan Lochman, Masaryk University, Czech Republic*

## **Effect of Gut Microbiota Regulation on Non-Alcoholic Fatty Liver Disease (Online Talk)**

*Yu Chen, The 7th Affiliated Hospital of Southern Medical University, China*

## **Differentiating the Gut Microbiome of Two Ethnic Groups with an Unequal Diabetic Burden by Short-Chain Fatty Acid-Producing Taxa (Online Talk)**

*Eric Nayman, Florida International University, USA*

## **16h55 The ISM Initiative: Phage-Microbiome Consortium**

### **Targeting Microbiota 2023 Awards**

## **17h25 End of Targeting Microbiota 2023**



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