International Society **∩**icrobiota TARGETING
MICROBIOTA Towards Clinical Revolution OCT. 17>19 - 2023 -VENICE TAIY Program 2023

10th 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



#### Under the local organization of



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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 & Myelinazation: 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

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

Microbiome Engineering: Reprograming 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 CI.EMME 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,



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

### 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 & Myelinazation: 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 Maína 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 – Marine Heatwaves and Microbiome in the Mediterranean Sea: Insights from Non Model Organism Manila Clam

Maria Elena Martino, University of Padova, Italy

17h15 Panel Discussion

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

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

Niels Odum, University of Copenhagen, Denmark

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

18h10 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 <u>register here</u>.



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 Schwiertz, 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 Cdkl5 Deficiency Disorder Francesca Damiani, Scuola Normale Superiore, Italy

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

10h25 – 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: Reprograming 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 Cutanaeous 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, Sarvajanik 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 Discussion: The Microbiota Landscape: Complexity, Competition and Challenges – Input of the ISM

Presentation of the ISM Initiative: Phage-Microbiome Consortium

**Targeting Microbiota 2023 Awards** 

17h25 End of Targeting Microbiota 2023









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For more information, please visit: <a href="www.microbiota-site.com">www.microbiota-site.com</a> or contact us at microbiota(at)microbiota-ism.com.