

International Society of Microbiota

6th World Congress on Targeting Microbiota



# Targeting Microbiota 2018

*Towards Clinical Revolution*

## Final Agenda



October 28 - 30, 2018 - Porto, Portugal

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



## 6<sup>th</sup> World Congress on **Targeting Microbiota** Towards Clinical Revolution

October 28-30, 2018 - Porto, Portugal

### Congress Sessions:

- Microbiota 2018: recent advances & challenges
- Recent analysis, methods, bioinformatics & interpretations
- Strategic role of metabolites and mediators on the microbiota-host cross-talk
- Strategies to manipulate microbiota & medicine of tomorrow

### Key dates

- Fri.** Registration  
Oct. 12, 2018
- Wed.** Poster Submission  
Oct. 17, 2018

### Microbiota 2018 Speakers



Recent advances on gut microbiota and food intolerances

**Yurdagül Zopf**  
University of Erlangen-Nuremberg, Germany



Psycho neuro immunology and gut microbes

**Paul Forsythe**  
McMaster University, Canada



Targeted gut microbiota and short chain fatty acid profile among term and preterm infants

**Jan Mazela**  
Poznan University of Medical Sciences, Poland



Honor thy lodgers? Interactions between the built environment microbiome and the human microbiome

**Markus Egert**  
Furtwangen University, Germany



Phage therapy strategy to modulate the child stunting microbiota

**Mohammadali Khan Mirzaei**  
McGill University, Canada



Crosstalk between gut microbiota, innate immune cells and endocrine cells in the pancreas regulates autoimmune diabetes

**Julien Diana**  
Inserm, France



Recent advances on the relation between the microbiome-gut-brain axis and the neurodegenerative diseases

**Maria Cecilia Giron**  
University of Padova, Italy



Sepsis and Microbiota: Obstacles, Recent Advances and strategies

**Natalia Beloborodova**  
Negovsky Research Institute, Russia



Exploring the role of gut dysbiosis in neuroinflammation and hypertension

**David Durgan**  
Baylor College of Medicine, USA



Impact of antibiotic treatment on the human microbiota - a review of the clinical implications

**Maria Vehreschild**  
University Hospital of Cologne, Germany



Role of microbes in stem cells transplantation related complication

**Ernst Holler**  
University Hospital Regensburg, Germany



MAIT cells (Mucosal-Associated Invariant T cells) in liver disease and antibacterial response

**Antonio Riva**  
Institute of Hepatology London, United Kingdom



The effect of gut bacterial metabolites on cardiovascular risk

**Marcin Ufnal**  
Medical University of Warsaw, Poland



Using germfree animal models to prove the role of the gut microbiota in liver diseases

**Philippe Gérard**  
Inra, France



Link between microbiota & visceral pain: role of bioactive lipids

**Cenac Nicolas**  
Inserm, France



Individual Differences in the Microbiome and Metabolome During Circadian Misalignment and Sleep Restriction: Associations with the Ability to Maintain Wakefulness

**Kenneth P. Wright**  
University of Colorado Boulder, USA

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# International Society of Microbiota

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Dear Colleagues,

On behalf of the International Society of Microbiota, we are pleased to inform you that the **6th World Congress on Targeting Microbiota** will be organized at **Porto, Portugal, on October 28-30, 2018**.

During both days, many oral and poster communications will be presented and will cover many hot topics:

- Microbiota 2018: Recent Advances & Perspectives
- Challenges of microbiota sequencing and analyzing: How to manage the Big Data of sequencing?
- Challenges of microbiota-host cross-talk understanding and intestinal microbiome signaling to extraintestinal organs
- Microbiota & medicine of tomorrow: Development of effective therapeutic strategies to manipulate the gut microbiota

During Targeting Microbiota 2018, we will try to answer many questions, among them:

- Can we modulate the quality and diversity of human microbiota?
- How to induce durable beneficial changes in gut microbiota?
- Where is the red line of the gut microbiota manipulation?
- What are the strategic mediators of gut microbiota?
- How to understand better the role of bacterial metabolites?
- What is the perfect microbiota "signature" and how to use it as a biomarker to "predict" and/or treat many diseases?
- What is the influence of gut microbiota on the development and progression of chronic diseases?

I do believe that this would be the best future strategy for the 6th World Congress of Targeting Microbiota in 2018: **a strong communication between basic, pre-clinical scientists and clinicians.**

## **Microbiota & Medicine of Tomorrow: The Revolution**

The scientific committee of ISM and in particular Prof. Marvin Edeas (Institut Cochin, Université Paris Descartes, France), founder of the International Society of Microbiota (ISM) wish to highlight: *"...there is a deep transformation in our current medicine where big data and Artificial Intelligence will play a strategic role in the medicine of tomorrow. How all big data generated by microbiota sequencing can be used? Can we talk about Artificial Intelligence and microbiota medicine? We wish to open the door for this kind of discussion..."*

So, I hope to meet you at the next meeting in order to capture moments of relationship and scientific inspirations by the many and best scientists we have in the world studying the various aspects of the microbiota.

We very much look forward to seeing you in Berlin for this exciting event



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



# International Society of Microbiota

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

## Targeting Microbiota

October 28-30, 2018 - Hotel Crowne Plaza, Porto, Portugal

### Scientific Agenda

Chairpersons:

Peter Konturek, Marvin Edeas, Knut Rudi, Markus Egert, Ernst Holler, Jan Mazela, Julien Diana, Paul Forsyth, Carole Nicco  
Roberto Pacifici, Nicolas Cenac, Maria Vehreschild, Fadi Abdulqader, Yasubumi Sakakibara

#### Day 1 – Sunday, October 28

17h00 – 18h00 Registration – Badges & Material Providing

#### Day 2 – Monday, October 29

7h45 Welcoming & registration of attendees

8h50 Introduction note by the President of ISM Targeting Microbiota 2018, Prof. Peter Konturek

#### Session 1: Microbiota 2018: Recent Advances & Challenges

*Chairs: Marvin Edeas, Maria Vehreschild*

9h00 Honor the lodgers? – Interaction between the built environment microbiome and the human microbiome (Skin & Gut)  
*Markus Egert, Furtwangen University, Germany*

9h25 Impact of antibiotics and microbiota: recent scientific advances and perspectives  
*Maria Vehreschild, University Hospital Frankfurt, Germany*

9h50 Recent advances on gut microbiota and food intolerances  
*Yurdagül Zopf, University of Erlangen-Nuremberg, Germany*

10h15 Exploring the role of gut dysbiosis in neuroinflammation and hypertension  
*David Durgan, Baylor College of Medicine, USA*

10h40 Coffee Break, Network, Exhibition & Poster Session

*Chair: Julien Diana, Nicolas Cenac*

11h20 Link between microbiota & visceral pain: role of bioactive lipids  
*Nicolas Cenac, Inserm, CHU Purpan, France*

11h45 Altered gut microbiota and endocannabinoid system tone in vitamin D deficiency-mediated chronic pain  
*Francesca Guida, Università degli Studi della Campania "Luigi Vanvitelli", Italy*

11h55 Role of microbes in stem cells transplantation related complication  
*Ernst Holler, University Hospital Regensburg, Germany*

12h20 Enteric microbiome markers as early predictors of clinical outcome in allogeneic hematopoietic stem cell transplant  
*Nicasio Mancini, University Vita-Salute San Raffaele, Italy*

12h30 Metagenomic studies on gut microbial diversity in healthy controls and patients with *Entamoeba histolytica* infections from New Delhi  
*Lakshmi Rani Iyer, Jawahara Nehru University, New Delhi, India*

12h40 Lunch Break, Network, Exhibition & Poster Session



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## Session 2: Strategies to manipulate microbiota & medicine of tomorrow

Chairs: Markus Egert, Peter Konturek

- 14h00 **Fecal Microbiota Transplant 2018: What's next?**  
*Peter Konturek, Teaching Hospital of the University of Jena, Germany*
- 14h25 **Phage Therapy strategy to modulate the child stunting microbiota**  
*Mohammadali Khan Mirzaei, McGill University, Canada*
- 14h50 **Probiotic supplementation and associated infant gut microbiome and health: a cautionary retrospective clinical comparison**  
*Candice Quin, University of British Columbia, Canada*
- 15h00 **Fermented milk by *Lactobacillus Delbrueckii* CIDCA 133 is able to ameliorate the chemotherapy-induced intestinal mucositis in Balb/c mice**  
*Mariana Martins Drumond, Universidade Federal de Minas Gerais, Brazil*
- 15h10 **Microbiota "friendly" lipid nanoparticles to counteract the gastric infection burden**  
*Catarina Leal Seabra, University of Porto, Portugal*
- 15h20 **Curative properties of three probiotics strains in a mice model of cow-milk allergy: impact on T-helper responses**  
*Nathalie Esber, University of Paris Descartes, France*
- 15h30 **A new freeze-dried formulation to conserve stools over 12 months for fecal transplantation**  
*Julie Reygner, Université Paris Descartes - Faculté de Pharmacie, France*
- 15h40 **Anaerobic cultivated human intestinal microbiota – ACHIM a way to restore intestinal microbiota functions in IBS patients**  
*Elizabeth Norin, Karolinska Institutet, Sweden*
- 15h50 **IL-33 induced by dysbiosis in vaginal microbiota contributes to impaired antiviral immunity against herpes simplex virus infection to vaginal mucosa**  
*Heung Kyu Lee, Korea Advanced Institute of Science and Technology, Korea*
- 16h00 **Bacterial quorum sensing molecules manipulate host satiety pathway**  
*Paola Brun, University of Padova, Italy*

16h10 *Coffee Break, Network, Exhibition & Poster Session*

## Session 3: Microbiota sequencing, big data interpretation, and artificial intelligence: myth or reality?

Chair: Yasubumi Sakakibara

- 16h50 **Microbiota sequencing, big data interpretation, and artificial intelligence: myth or reality?**  
The aim of this discussion is to connect all the key actors involved in microbiota assessment and analysis: mathematician, computer scientists, bioinformatician, clinician, academics and industrials in order to initiate the discussion about sequencing, big data generating and how to integrate artificial intelligence into microbiota analysis interpretation.
- Introduction – Metagenome analysis and bioinformatics method for metagenome assembly: recent advances and perspectives**  
*Yasubumi Sakakibara, Keio University, Japan*
- Development of meta-transcriptome analysis method and its application to meta-transcriptome map of common marmoset**  
*Mika Uehara, Keio University, Japan*
- 17h15 **A preliminary study on bioinformatics probiotic database for microbiota**  
*Melike Yilmaz, Izmir Institute of Technology, Turkey*
- 17h25 **Electron-microscopic analysis of skin bacterial microbiota in patients with atopic dermatitis and in healthy human hosts**  
*Oksaba V. Rybalchenko, St Petersburg State University, Russian Federation*
- 17h35 **Improving the accuracy and reproducibility of microbiome measurements across labs**  
*Thomas Kuri, Zymo Research GmbH, Freiburg, Germany*



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- 17h45 **A higher standard for microbiome studies: best practices from sampling to analysis**  
*Evgueni Doukhanine, DNA Genotek, Canada*
- 18h05 **Genomics solutions that enhance and accelerate microbiota analysis**  
*Mette K. Lund, Eurofins Genomics, Denmark*
- 18h15 **Assessing gut microbiota-host crosstalk: development of a standardized and quantitative targeted metabolomics**  
*Carlos Malpica, MLP Vision Biotech SL, Spain*
- 18h25 **Identification of bacterial taxa with a potential role in Parkinson's disease using illumine MiSeq and Ion Torrent PGM next generation sequencing**  
*Severin Weis, Furtwangen University, Germany*
- 18h35 **Discussion**
- 18h45 **End of the day**
- 20h30 **Targeting Microbiota Dinner**

## Day 3 – Tuesday, October 30

- 8h25 **Opening of the second day**

### Session 4: Strategic role of metabolites and mediators on the microbiota-host cross-talk

*Chair: Knut Rudi*

- 8h30 **Microbiota and mitochondria inter-talk in hemodialysis patients: a pilot study**  
*Marvin Edeas, Université Paris Descartes, Institut Cochin, France*
- 8h55 **Crosstalk between gut microbiota, innate immune cells and endocrine cells in the pancreas regulates autoimmune diabetes**  
*Julien Diana, Institut National de la Santé et de la Recherche Médicale (INSERM), France*
- 9h20 **MAIT cells (Mucosal-Associated Invariant T cells) in liver disease and antibacterial response**  
*Antonio Riva, Institute of Hepatology London, Foundation for Liver Research, United Kingdom*
- 9h45 **The effect of gut bacterial metabolites on cardiovascular risk**  
*Marcin Ufnal, Medical University of Warsaw, Poland*
- 10h10 **The triple interaction diet-microbiome-epigenome: a novel approach to type 1 diabetes**  
*Annalisa Terranegra, Sidra Medicine, Qatar*
- 10h20 **Examining the relationship between maternal body size, gestational glucose tolerance, mode of delivery and ethnicity on human milk microbiota at 3 months post-partum**  
*Lauren Lemay-Nedjelski, University of Toronto, Canada*

10h30 *Coffee Break, Network, Exhibition & Poster Session*

*Chair: Ernst Holler*

- 11h15 **Targeted gut microbiota and short chain fatty acid profile among term and preterm infants**  
*Jan Mazela, Poznan University of Medical Sciences, Poland*
- 11h40 **Psycho neuro immunology and gut microbes**  
*Paul Forsythe, McMaster University, Canada*
- 12h05 **Using germfree animal models to prove the role of the gut microbiota in liver diseases**  
*Philippe Gérard, INRA, France*
- 12h30 **Gut microbiota from infant with cow's milk allergy leads to atopic orientation in a murine model of CMA**  
*Aurélié Mauras, Université Paris Descartes, France*

12h40 *Lunch Break, Network, Exhibition & Poster Session*



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Chair: Jan Mazela, Carole Nicco

- 13h45 **Recent advances on the relation between the microbiome-gut-brain axis and the neurodegenerative diseases**  
*Maria Cecilia Giron, University of Padova, Italy*
- 14h10 **Individual differences in the microbiome and metabolome during circadian misalignment and sleep restriction: associations with the ability to maintain wakefulness**  
*Kenneth Wright, University of Colorado Boulder, USA*
- 14h35 **Sepsis and microbiota: Obstacles, recent advances and strategies**  
*Natalia Beloborodova, Negovsky Research Institute of General Reanimatology, Russia*
- 15h00 **Prevalence of akkermansia muciniphila, bacteroides vulgatus and methanobrevibacter smithii in the gut microbiota from relapsing-remitting multiple sclerosis patients**  
*Gislane Lelis Vilela de Oliveira, Barretos School of Health Sciences Dr. Paulo Prata, Brazil*
- 15h25 **Current and new approaches for measuring gut-blood barrier permeability**  
*Kinga Jaworska, Medical University of Warsaw, Poland*
- 15h35 *Coffee Break, Network, Exhibition & Poster Session*
- Chairs: Fadi Abdulqader, Paul Forsyth
- 16h05 **Interventional strategies binding the human blood microbiota with the states of health, latent and active tuberculosis**  
*Stefan Panaiotov, National Center of Infectious and Parasitic Diseases, Bulgaria*
- 16h15 **Delayed liver regeneration in germ-free mice is normalized following colonization with conventional mouse microbiota**  
*Antony M. Wheatley, National University of Ireland, Ireland*
- 16h25 **Influence of nutrition and physical activity on bacterial composition in obese patients**  
*Dejan Reljic, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany*
- 16h35 **Gut dysbiosis and altered barrier function precedes the appearance of metabolic syndrome in a rat model of maternal food-restriction**  
*Paula Martínez-Oca, University Complutense of Madrid, Spain*
- 16h45 **Bile acids, MAIT cell activity and inflammatory parameters and the link to weight in 15 years old children**  
*Gunda Herberth, Helmholtz Center for Environmental Research Leipzig, Germany*
- 16h55 **Akkermansia Muciniphila ameliorates inflammatory bowel disease via improvement of gut tight junction and epithelial cell ER stress**  
*Qiaozhu Su, Queen's University Belfast, United Kingdom*
- 17h05 **Is skeletal muscle remodeling associated with gut microbiota signature?**  
*Maxence Jollet, University Montpellier, INRA, France*
- 17h15 **Evaluation of the effect of the oral consumption of capsules containing *Lactobacillus Paracasei* LPC-S01 on the vaginal microbiota of healthy adult women: A randomized, placebo-controlled, double-blind, crossover pilot trial**  
*Valentina Taverniti, Università degli Studi di Milano, Italy*
- 17h25 **Intestinal Microbiota as a risk for antimicrobial resistance spread – health and ecological threat**  
*Helena Neto Ferreira, University of Porto, Portugal*
- 17h35 **General discussion & Concluding remarks**  
Among of questions which will be discussed:  
- Microbiota 2018: Marketing, Claims & Regulations - Bridging the gap between Marketing Strategy and Science  
- Microbiota & Medicine of tomorrow: Can we speculate?
- Targeting Microbiota 2018 Awards**
- 17h55 **End of Targeting Microbiota 2018**