



International Society of Microbiota

Third World Congress on

Targeting Microbiota

***Workshop on Exploration &
Sequencing of Human Microbiota:
The Perfect Signature***

**October 21-22-23, 2015
Institut Pasteur
Paris, France**

Microbiota 2015 - 3 days Program



International Society of Microbiota

Targeting Microbiota 2015 Towards Clinical Revolution

October 21-22-23, 2015 – Institut Pasteur - Paris

Dear Colleagues,

It is a pleasure to welcome you for the **3rd World Congress on Targeting Microbiota** which will be held at **Institut Pasteur**, Paris, France on **October 21-23, 2015**.

During Pasteur Congress, many hot topics will be discussed:

- The Role of Microbiota in Health and Diseases: The Mechanistic Aspects
- Recent Advances on Microbiota Clinical Researches & Innovations in 2015
- Microbiota & Biomarkers: From Predictive to Personalized Medicine
- New Challenges to Prevent and Treat Metabolic Diseases, Cancer, Liver, Kidney, Lung and Inflammation-Related Diseases Impact of Environment, Food Conservators & Antibiotics on the quality and biodiversity of microbiota
- Can we modulate the diversity and quality of microbiota?
- Skin Microbiota: Recent advances on its characterization and manipulation in diseased conditions
- Fecal Microbiota Transplantation: Practical Issues & Regulation

Workshop: Exploration & Sequencing of Human Microbiota: The perfect signature

All you need to know about the recent methods, devices and platforms will be presented during this workshop, organized on October 21.

To conclude this congress, a general discussion will be held between speakers, scientists and industry sector about Microbiota and medicine of tomorrow. Among questions which will be discussed:

- Can one strain fit with all populations?
- To date, the most relevant challenge: can we modulate and manipulate the human gut microbiota?
- How diet, food, antibiotics, hormones, prebiotics and faecal microbiota can affect resident microbiota?
- How to avoid speculations and marketing on microbiota not supported by actual data?

We look forward welcoming you during Targeting Microbiota congress.

Dr Yuri Ikeda – Dr Marvin Edeas

Chairmen of the International Society of Microbiota



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Workshop on Exploration & Sequencing of Human Microbiota: The Perfect Signature

October 21, 2015 – Institut Pasteur - Paris

The scientific committee of the International Society of Microbiota (ISM) dedicates a workshop on ***Exploration & Sequencing of Human Microbiota: The Perfect Signature***.

All you need to know about microbiome and microbiota, studies, analysis, devices, recent methods and platforms will be presented during the workshop organized on **October 21**, at Institut Pasteur.

One of the critical questions which will be discussed is **how to interpret these analyses?**

The scientific committee of ISM invites the academics and the industrials to present their innovations. Without the innovations coming from the industrial side, we cannot translate the fundamental researches undertaken by clinicians and academics.

During Pasteur workshop, a special timing will be allocated to industrials to present the methods and devices to analyze and sequence the microbiota. Among the industrials who will participate to this session:

Libragen, Genoscreen, Lifesequencing, DNAVision, Vaiomer...

Among the strategic questions which will be discussed:

- All steps you need to know to study microbiota: from faecal extraction to bioinformatics
- What are the recent and recent methods to sequence and analyze human microbiota?
- How to interpret the analyses? The strategic role of bioinformatics
- How to standardize protocols for exploring human microbiota? Focus on gut & skin microbiota
- Can we identify a specific signature of each person: towards a new era in personalized medicine?
- Can we talk about a revolution in medicine?

At the end of the workshop, the scientific committee will discuss the following questions:

- Can we manipulate skin microbiota?
- Can we talk about diversity and quality of skin microbiota?
- Microbiota or Metabolites: the subtle balance



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Third World Congress on Targeting Microbiota

October 21-22-23, 2015 – Institut Pasteur

Preliminary Agenda

Day 1: October 21, 2015

Workshop on Exploration & Sequencing of Human Microbiota: The Perfect Signature

8h15 Registration & Welcoming for Workshop

9h25 Opening Ceremony by chairman of International Society of Microbiota

Microbiota/Microbiome: Steps & Methods

**9h30 Why should we care about primers and platform in microbiota analysis?
Francisco Codoñer, Lfesequencing, Spain**

Mr Codoñer will highlight the following points:

- a) Sample taken and conservation. Some considerations have to be taken in order to avoid the increase of aerobic bacterial and decrease of anaerobic ones that could affect to the bacterial detection and count and to the conclusions.*
 - b) 16s rRNA region of study. Depending on the region we are going to detect different profiles, optimal V3-V5.*
 - c) Set of primers used. This is another key point, since different set of primers will pick different groups of bacteria. We will provide a comparison between two sets of primers mostly used.*
 - d) Massive sequencing platform. 454 has been describe as gold standard in this kind of studies, specially to reach a good species taxonomical identification, we will show how MiSeq can be used as a real alternative to the 454.*
 - e) Databases. This is another key point, not only for the analysis, but for the primer design and improvement, there is no complete database that can make the thing easy to analyse and interpret.*
- He will highlight that through the microbiome (mostly coming from faeces), they will be able to disentangle the alterations or illnesses that a patient is suffering and maybe change to normal conditions with the introduction of an antibiotic, prebiotic or probiotic.*

**10h15 Evolution and challenges of NGS technologies for microbiota analysis and their validation for diagnostic
Sébastien Massart, DNA Vision, Belgium**

NGS technologies have revolutionized the landscape of microbiota studies. Through a critical overview, the talk will review the pros and cons of the 3 main protocols to study microbiota by NGS. The challenges and opportunities of these developments will be underlined as well as the road toward their use in diagnostics.

11h00 Coffee Break & Exhibition Session

**11h30 Screening method to study host microbiota interactions in human intestine
Hervé Blottière, MetaGenoPolis, France**

Dr Blottière proposes to use a functional metagenomic approach in order to model the microbiota's interaction with the host by combining the heterologous expression with intestinal reporter cell lines. He presents a methodology allowing a high throughput screening combining two biological systems. Therefore ideal conditions for homogeneity, sensitivity and reproducibility of both metagenomic clones as well as reporter cell lines have been identified and validated. We believe that this innovative method will allow the identification of new bioactive microbial molecules and, subsequently, will promote understanding of host-microbiota interactions.



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12h30 Short Oral Presentations upon Abstracts Submission (*you have until September 21 to submit your abstract*)

13h00 Lunch Break & Exhibition Session

Clinical & Industrial Innovations

An exhibition space will be dedicated to industrials. Among exhibitors:
Libragen, Genoscreen, MoBio, Vaiomer

14h30 Practical aspects of microbiota and kidney diseases: how to evaluate the impact of microbiota variations on hemodialysis patients?
Mokhtar Chawki, Clinique du Parisis, France

Dr Chawki is studying the impact of probiotics on hemodialysis patients. He will present the clinical protocol and discuss how to interpret the variability of microbiota.

15h00 Industrial Presentations

16S sequencing analysis: comparison between RSII PacBio versus Illumina MiSeq
David Vilanova, Bioinformatics & Bioanalysis Director, Libragen, France

The complete list of industrial presentations will coming soon.

16h00 Coffee Break & Exhibition Session

What we can learn from microbiota analysis and how to apply this to animal health?

16h30 Dynamic interactions of the equine hindgut microbiota in health and disease
Knut Rudi, Norwegian University of Life Sciences, Norway

17h00 Short Oral Presentations upon Abstracts Submission (*you have until September 21 to submit your abstract*)

17h45 Presentation of ISM Platform

17h50 Discussion & Conclusion in Presence of the Scientific Committee and Speakers
Can we manipulate skin microbiota?
Can we talk about diversity and quality of skin microbiota?
Microbiota or Metabolites: the subtle balance

18h15 End of the first day

14h30 – 17h30 Registration & Posters Installation for days 2 & 3





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Day 2: October 22, 2015

7h30 Registration – Posters Installation

Session 1: Recent Advances on Microbiota Researches & Innovations in 2015

9h00 Introduction Lecture - Microbiota 2015: Towards a revolution?
Yuri Ikeda, Chairman of the International Society of Microbiota, Japan

9h30 The gut microbiota & obesity: from correlation to causality
Liping Zhao, Shanghai Jiao Tong University, China

10h00 Role of gut microbiota in Parkinson's disease
Filip Scheperjans, Helsinki University Central Hospital, Finland

10h30 Coffee Break, Posters & Exhibition Session

11h00 Role of gut bacteria in host control of appetite
Serguei Fetissov, Rouen University, France

11h30 Modulation of host microbiota by *Listeria monocytogenes*
Javier Pizzaro-Cerda, Institut Pasteur, France

12h00 Short Oral Presentations upon Abstracts Submission (*you have until September 21 to submit your abstract*)

12h30 Lunch Break, Posters & Exhibition Session

Session 2: Microbiota, Predictive Medicine & Biomarkers: The Perfect Signature

14h00 Cancer & Microbiota: Potential of fecal microbiota for early-stage detection of colorectal cancer
Iradj Sobhani, Hôpitaux Universitaires Henri Mondor, France

14h30 Taxonomic and functional metagenomic analysis of the airway samples from cystic fibrosis patients with lower and higher pulmonary function decline
Annamaria Bevivino, ENEA Casaccia Research Centre, Italy

15h00 Short Oral Presentations upon abstracts submission (*you have until September 21 to submit your abstract*)

Identification of blood bacterial profiles associated with liver fibrosis in obese patients
Benjamin Lelouvier, Vaiomer, France

15h30 Coffee Break, Posters & Exhibition Session

Session 3: Fecal Microbiota Transplantation: Practical Issues & Regulation

16h00 Fecal Microbiota Transplantation: recent scientific data
Harry Sokol, Hôpital Saint Antoine, France

16H30 Fecal microbiota in pediatric inflammatory bowel disease and its relation to inflammation
Katri Korpela, Helsinki University, Finland

17h00 Juristical hurdles and possibilities for companies providing faecal transplant services
Andreas Schwiertz, MVZ Institut für Mikroökologie, Germany



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17h30 Short Oral Presentations upon abstracts submission (*you have until September 21 to submit your abstract*)

Anaerobically Cultivated Human Intestinal Microbiota

Atti-La Dahlgren, Karolinska Institutet, Sweden

SYN-004, a novel strategy to protect the gut microbiome from the deleterious effects of residual iv β -lactam antibiotics

John F. Kokai-Kun, Synthetic Biologics, USA

Does the gut microbiome affect mucosal immune activation and intrarectal susceptibility to shiv acquisition in naïve rhesus macaques?

Yongjun Sui, National Cancer Institute, National Institutes of Health, USA

Manipulating the human microbiome using polyphenol rich foods, supplements, and prebiotics, coupled with avoidance of major dietary lectins reverses endothelial dysfunction

Robert Steven Gundry, The Center for Restorative Medicine, The International Heart and Lung Institute, USA

Biomarkers- directed strategies to prevent and treat autism using selected probiotics

Afaf El-Ansary, King Saud University, Saudi Arabia

Association of gut microbiota and host serum cholesterol

Orawan La-Ongham, Kasetsart University, Thailand

Business, regulatory & clinical challenges in commercializing a next-generation FMT drug for recurrent Clostridium Difficile Infection: A US Perspective

Lee Jones, Rebiotix, USA

Overview of US army nutrition and gut health programs

Kenneth Racicot, United States Army Natick Soldier Research Development and Engineering Center, USA

Bacterial community modulate behaviors of eukaryotic organisms: new perspectives in restoration of threatened coral reefs

Catalina Arevalo Ferro, National University of Colombia, Colombia

Antibiotic effect monitoring using metagenomic signatures

Dmitry Alexeev, Research Institute of Physico-Chemical Medicine, Russian Federation

18h30 End of the Second Day

20h00 Targeting Microbiota Dinner in a typical French restaurant

You can register online until October 9, 2015.



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Day 3: October 23, 2015

Session 4: The Microbiota Role in Health & Diseases: Targeting Skin Microbiota

- 9h00 **Lactobacillus salivarius LS01 and Bifidobacterium breve BR03 combination in atopic dermatitis: which evidences?**
Lorenzo Drago, University of Milano, Italy

Session 5: The Microbiota Role in Health & Diseases: Targeting Vaginal Microbiota

- 9h30 **The impact of erythromycin on the vaginal microbiome in women with preterm premature rupture of the fetal membranes (PPROM)**
David MacIntyre, Imperial College London, United Kingdom
- 10h00 **Vaginal Microbiota & Relation with Sexually Transmitted Diseases**
Jacques Ravel, Institut Pasteur, France

Microbiota & HIV Infection

- 10h30 **HIV infection & microbiota diversity and quality: how HIV modify gut microbiota?**
Grégory Dubourg, Université de Marseille, France

11h00 Coffee Break, Posters & Exhibition Session

Session 6: New Challenges to Prevent & Treat Metabolic Diseases, Cancer, Neurodegenerative Diseases, Liver, Kidney, Lung Diseases & all Inflammation Related Diseases

- 11h30 **Tissue microbiota, the next generation paradigm of metabolic disease**
Rémy Burcelin, Inserm U1048, France
- 12h00 **Pancreatic beta-cells limit autoimmune diabetes: strategic role of gut microbiota**
Julien Diana, Inserm, Université Paris Descartes, France
- 12h30 Lunch Break, Posters & Exhibition Session
- 14h00 **Regulation of body fat mass by the gut microbiota: possible mediation by the brain**
John-Olov Jansson, Sahlgrenska Academy at Gothenburg University, Sweden
- 14h30 **Gut microbiota: novel & strategic players in coeliac disease pathogenesis**
Elena F. Verdu, McMaster University, Canada
- 15h00 **The link between depression and gut microbiota**
Premysl Bercik, MacMaster University, Canada
- 15h30 **Metagenomic analysis of the microbiota in patients receiving allogeneic SCT: Role of harmful versus protective microbiota and the impact of antibiotic prophylaxis and treatment**
Ernst Holler, University Medical Center, Germany

15h45 Coffee Break, Posters & Exhibition Session



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16h15 Short Oral Presentations upon Abstracts Submission *(you have until September 21 to submit your abstract)*

Contribution of human gut microbiota metabolism in anti-inflammatory activities of ellagitannin-rich medicinal plants

Jakub P. Piwowarski, Medical University of Warsaw, Poland

New insights into post-infectious sequelae: enteropathogen-induced disruptions of human gut mucosal microbiota biofilms cause intestinal inflammation

Gerald Andre Buret, University of Calgary, Canada

Antibacterial mouthwash blunts oral nitrate reduction and increases blood pressure in treated hypertensive men and women

Catherine Bondonno, University of Western, Australia

Microbial communities of early-stage Crohn's disease tissues

Louise Claire O'Brien, Canberra Hospital and Australian National University, Australia

The effects of Clostridium Ramosum on enterohaemorrhagic Escherichia Coli O157:H7

Yukako Koyanagi, Tohoku University, Japan

Gut microbiome re-programming in the ATLAS model of colitis

Steven J. Alexander, LSU Health – Shreveport, USA

Cocoa bioactives, gut microbiota and mitochondria

Yvan Petyaev, Lycotec, United Kingdom

The microbiota shifts the iron sensing of intestinal cells

Muriel Thomas, INRA, France

Use of microbial networks as a strategy to recover from gut dysbiosis

Massimo Marzorati, Ghent University, Belgium

17h30 General Discussion of Targeting Microbiota 2015:

- Can one strain fit with all populations?
- To date, the most relevant challenge: can we modulate and manipulate the human gut microbiota?
- How diet, food, antibiotics, hormones, prebiotics and faecal microbiota can affect resident microbiota?
- How to avoid speculations and marketing on microbiota not supported by actual data?

In the presence of Organizers & Speakers from scientific committee

Targeting Microbiota 2015 Awards:

- Scientific Contribution Award 2015
- Scientific Contribution for Oral Presentation
- Scientific Contribution for Poster Presentation

Concluding Remarks by the chairs

18h00 End of Targeting Microbiota 2015



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**For all request concerning demonstrations,
exhibition and general information, please contact:**

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