





# 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 & Antiobiotics 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



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



## **3<sup>rd</sup> World Congress on Targeting Microbiota**

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

## - Agenda -

	Day 1: October 21, 2015
	Workshop on Exploration & Sequencing of Human Microbiota: The Perfect Signature
	Chairs: Hervé Blottière, Grégory Dubourg, Knut Rudi
7h30	Opening of Pasteur Institute – Your ID/Passport is request to access to congress
7h45	Registration & Welcoming for Workshop
8h55	Introduction Remarks by Chairpersons of International Society of Microbiota Marvin Edeas, Yuri Ikeda, Miria Ricchetti
	Microbiota/Microbiome: Steps & Methods
9h00	Introduction of ISM Workshop: Screening method to study host microbiota interactions in human intestine Hervé Blottière, MetaGenoPolis, France
10h00	Culturomics and pyrosequencing: two complementary techniques to study the gut microbiome Grégory Dubourg, Université de Marseille, France
	10h45 Coffee Break & Network Session
11h15	Rectal Swabs for Analysis of the Intestinal Microbiota Anat Eck, VU Medical Center, The Netherlands
	What we can learn from microbiota analysis and how to apply this to animal health?
11h45	Dynamic interactions of the equine hindgut microbiota in health and disease Knut Rudi, Norwegian University of Life Sciences, Norway
12h15	Discussion: The Academic Point of View
	12h45 Lunch Break & Network Session
	Clinical & Industrial Innovations
14h00	Why should we care about primers and platform in microbiota analysis? Francisco Codoñer, Lifesequencing, Spain
14h30	Evolution and challenges of NGS technologies for microbiota analysis and their validation for diagnostic Sébastien Massart, DNA Vision, Belgium
15h00	16S sequencing analysis: comparison betwenn RSII PacBio versus Illumina MiSeq David Vilanova, Bioinformatics & Bioanalysis Director, Libragen, France
	15h20 Coffee Break & Network Session
15h50	Important Considerations for Robust and Unbiased DNA and RNA Sample Prep for Microbiome Studies Sandrine Miller, MO BIO Laboratories, USA
16h10	Practical aspects of microbiota and kidney diseases: how to evaluate the impact of microbiota variations on hemodialysis patients?  Mokthar Chawki, Clinique du Parisis, France
16h20	Presentation of ISM Open Access Journal & ISM Platform Yann Saint-Georges Chaumet, International Society of Microbiota, France
16h30	Discussion: The academic versus the industrial point of view
17h00	Concluding remarks
17h15	End of the first day



Day 2: October 22, 2015

7h45 Registration - Posters Installation

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

Chairs: Marvin Edeas, Yuri Ikeda, Liping Zhao

8h55 Welcome Remarks by Marvin Edeas, Serguei Fetissov, Yuri Ikeda, Miria Ricchetti

9h00 Microbiota 2015: Towards a revolution?

Marvin Edeas, Chairman of the Scientific Committee, France

9h25 The gut microbiota & obesity: from correlation to causality

Liping Zhao, Shanghai Jiao Tong University, China

9h50 Role of gut bacteria in host control of appetite

Serguei Fetissov, Rouen University, France

10h15 Modulation of host microbiota by Listeria monocytogenes

Javier Pizzaro-Cerda, Institut Pasteur, France

10h40 Coffee Break, Posters & Exhibition Session

Chairs: Lorenzo Drago, Serguei Fetissov

11h10 Role of gut microbiota in Parkinson's disease

Filip Scheperjans, Helsinki University Central Hospital, Finland

11h35 Short Oral Presentations (5 + 2 minutes)

Prenatal stress and gut microbiota diversity in middle-pregnancy – future tool for screening prenatal stress exposure?

Henna-Maria Uusitupa, University of Turku, Finland

Bifidobacterium animalis subsp lactis CNCM-I2494 restores gut barrier permeability in chronically low-grade inflamed mice

Rebeca Martin, Probihot, Micalis Institute, France

Rational selection of lactobacillus strains based on bile salt hydrolase activity

Sarah Long, University College Cork, Ireland

Maternatl gestational stress-induced changes in gut microbiota correlate with alterations in the physiology of the adult offspring

Anna Golubeva, University College Cork, Ireland

Diet, gut inflammation and the microbiota: preventing autoimmune diabetes in the intestinal mucosa Marika Falcone, San Raffaele Scientific Institute, Italy

Colonization of mice with Lactobacillus positive or negative human infant microbiota influences immune maturation in offspring

Dagbjort Helga Petursdottir, Stockohlm University, Sweden

Minigut - a small volume colon model with increaed throughput

Maria Wiese, University of Copenhagen, Denmark

12h35 Lunch Break, Posters & Exhibition Session

Session 2: Microbiota Signature & Predictive Medicine

Chairs: Ernst Holler, Javier Pizzaro-Cerda, Jacques Ravel

14h00 Cancer & microbiota: potential of fecal microbiota for early-stage detection of colorectal cancer Iradj Sobhani, Hôpital Universitaire Henri Mondor, France



14h25 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

14h50 Metagenomic analysis of the microbiota in patients receiving allogeneic SCT: Role of hamrful versus protective microbiota and the impact of antibiotic prophylaxis and treatment

Ernst Holler, University Medical Center, Germany

**Targeting Skin Microbiota** 

15h15 Lactobacillus salivarius LS01 and Bifidobacterium breve BR03 combination in atopic dermatitis:

which evidences?

Lorenzo Drago, University of Milano, Italy

15h40 Extended Break for Posters & Exhibition Session

#### **Targeting Vaginal Microbiota**

16h40 The interactions between the host, the vaginal microbiota and sexually transmitted infections

Jacques Ravel, Institute for Genome Sciences, University of Maryland School of Medicine, Baltimore, USA

17h05 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

17h30 Short Oral Presentations (5 + 2 minutes)

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

**Anaerobically Cultivated Human Intestinal Microbiota** 

Atti-La Dahlgren, Karolinska Institutet, Sweden

Antibiotic effect monitoring using metagenomic signatures

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

SYN-004, a novel strategy to protect the gut microbiome from the deleterious effects of residual IV  $\beta$ -lactam antibiotics

John F. Kokai-Kun, Synthetic Biologics, USA

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

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

Association of gut microbiota and host serum cholesterol

Orawan La-Ongkham, Kasetsart University, Thailand

Microbially mediated bile alterations affects host metabolism

Susan Anne Joyce, APC microbiome Institute, Ireland

Oral supplementation with I-glutamine alters gut microbiota and pro-inflammatory cytokines of obese and overweight subjects

Patricia Prada, Unicamp, Brazil

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

Catalina Arevalo Ferro, National University of Colombia, Colombia

18h30 End of the Second Day

19h45 Bus Pick-up for Targeting Microbiota Dinner – in front of Pasteur Institute

20h30 Targeting Microbiota Dinner in a typical French restaurant

Hotel Scribe - 1 rue Scribe - 75009 Paris

If you would like to participate, please contact the secretary desk before 10:00.



Day 3: October 23, 2015

Chairs: John-Olov Jansson, Harry Sokol

Session 3: Fecal Microbiota Transplantation: Practical Issues & Regulation

9h00 Fecal Microbiota Transplantation: recent scientific data Harry Sokol, Hôpital Saint Antoine, France

9h25 Fecal microbiota in pediatric inflammatory bowel disease and its relation to inflammation

Katri Korpela, Helsinki University, Finland

9h50 Juristical hurdles and possibilities for companies providing faecal transplant services

Andreas Schwiertz, MVZ Institut für Mikroökologie, Germany

10h15 Business, regulatory & clinical challenges in commercializing a next-generation FMT drug for recurrent Clostridum Difficile Infection: A US Perspective

Lee Jones, Rebiotix, USA

Session 4: The Microbiota Role in Health & Diseases – Perspectives & Strategies

Microbiota & HIV Infection

10h25 Major shifts in the gut microbiota associated with HIV infection Grégory Dubourg, Université de Marseille, France

10h50 Extended Break for Posters & Exhibition Session

Microbiota & Celiac Diseases

11h50 Gut microbiota: novel & strategic players in celiac disease pathogenesis Elena F. Verdu, McMaster University, Canada

12h15 Short Oral Presentations (5 + 2 minutes)

Enteric Dialysis-stabilization of the gut microbiome using probiotics and prebiotics (gut-kidney connection) Natarajan Ranganathan, Kibow Biotech, USA

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

Jakub P. Piwowarski, Medical University of Warsaw, Poland

Microbial communities of early-stage Crohn's disease tissues Claire Louise O'Brien, Canberra Hospital and Australian National University, Australia

Cocoa bioactives, gut microbiota and mitochondria Ivan Petyaev, Lycotec, United Kingdom

12h45 Lunch Break, Posters & Exhibition Session

Microbiota & Metabolic Diseases

Chairs: Rémy Burcelin, Premysl Bercik, Miria Ricchetti

14h00 Tissue microbiota, the next generation paradigm of metabolic disease Rémy Burcelin, Inserm U1048, France

14h25 Regulation of body fat mass by the gut microbiota: possible mediation by the brain John-Olov Jansson, Sahlgrenska Academy at Gothenburg University, Sweden

14h50 Pancreatic beta-cells limit autoimmune diabetes: strategic role of gut microbiota Julien Diana, Inserm, Université Paris Descartes, France

Microbiota & Depression



15h15 The link between depression and gut microbiota Premysl Bercik, MacMaster University, Canada

15h40 Coffee Break, Posters & Exhibition Session

**16h10** Short Oral Presentations (5 + 2 minutes)

Use of microbial networks as a strategy to recover from gut dysbiosis Massimo Marzorati, Ghent University, Belgium

Impact of a dysbiosis corrector on gut microbiota from adult blood siblings

Marisela Gonzalez Avila, Centro de Investigación y Asistencia en Tecnología y Diseño, Mexico

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 International Heart and Lung Institute, USA

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

The effects of Clostridium Ramosum on enterohaemorragic Escherichia Coli O157:H7 Yukako Koyanagi, Tohoku University, Japan

The microbiota shifts the iron sensing of intestinal cells Muriel Thomas, INRA, France

Methods for improving human gut microbiome data by reducing variability through sample processing and storage of stool

Deanna Gibson, University of British Columbia, Canada

Pancreas insufficiency in cystic fibrosis patients drives a different fecal microbiota and metabolic phenotype Valerio lebba, Sapienza University of Rome, Italy

The gut microbiota regulates murine cardiac transplant outcome
Elizabeth Lauren Hittle, University of Maryland School of Medicine, United States

Yogurt de Pajaritos, a Chilean kefir with properties of interest for individuals lactose intolerance and osteoporosis, and its potential applications on human health Alejandro Miguel Dinamarca, Universidad de Valparaiso, Chile

17h30 Microbiota 2015: Personnal Point of View & Vision Iradj Sobhani, Hôpital Universitaire Henri Mondor, France

17h30 General Discussion of Targeting Microbiota 2015
In the presence of Organizers & Speakers from scientific committee

Presentation of ISM Open Access Journal & ISM Platform - Call for Abstracts

Remarks by the chairs & Targeting Microbiota 2015 Awards

17h45 End of Targeting Microbiota 2015



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

### John Edwards - Erica Takayama

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