

# Oral Program

Sunday, 27 September 2015

11:00-14:30 **Registration**

14:30-14:45 **Welcome and Introduction- Verdun/Outremont**

**Session 1: Diversity and Stability of the Microbiome- Verdun/Outremont**  
*Session Chair: Herve LeMoual, McGill University, Canada*

14:45-15:30 **Opening Keynote** - Biogeography and individuality shape function in the human skin metagenome  
Julie Segre, *National Human Genome Research Institute, USA* [K01]

15:30-16:00 An ecological perspective on the human gut microbiota  
Corinne F. Maurice, *McGill University, Canada* [INV01]

16:00-16:30 Host microbiome interactions in health and disease  
Eran Elinav, *Weizmann Institute, Israel*, [INV02]

16:30-17:00 Insights from a global view of secondary metabolism: Small molecules from the human microbiota  
Michael Fischbach, *University of California, USA* [INV03]

17:00-18:30 **Welcome Drinks & Reception- Bonaventure Room**

Monday, 28 September 2015

**Session 2: Microbiota and the Immune System- Verdun/Outremont**  
*Session Chair: Dana Philpott, University of Toronto, Canada*

09:00-09:30 TBC

Fiona Powrie, *The Kennedy Institute of Rheumatology, UK* [INV04]

09:30-10:00 Mechanism of Th17 cell programming by the intestinal microbiota  
Dan R. Littman, *New York University School of Medicine, USA, Howard Hughes Medical Institute, USA* [INV05]

10:00-10:15 Thinking outside the mouse: Development of an ex-vivo gut organ culture system  
N. Yissachar\*, D. Mathis, C. Benoist, *Harvard Medical School, USA* [ST01]

10:15-10:30 Human immune system adaptation to environmental influences during the first weeks of life  
A. Olin<sup>1</sup>, E. Henckel<sup>2</sup>, K. Bohlin<sup>2</sup>, P. Brodin<sup>\*1,2</sup>, <sup>1</sup>*Karolinska Institutet, Sweden*, <sup>2</sup>*Karolinska University Hospital, Sweden* [ST02]

10:30-11:00 **Refreshments- Fontaine**

11:00-11:30 Intestinal immune surveillance by intraepithelial lymphocytes  
Daniel Mucida, *The Rockefeller University, USA* [INV06]

11:30-12:00 Microbiota-dependent sequelae of acute infection permanently compromises tissue homeostasis  
Yasmine Belkaid, *National Institute of Allergy and Infectious Diseases, NIH, USA* [INV07]

12:00-12:15 The gut microbiota-host communications and their therapeutic potential  
N.G.Z. Geva-Zatorsky\*, D.A. Alvarez, J.E.H. Hudak, N.C.R. Reading, D.E.H. Erturk-Hasdemir, S.D. Dasgupta, U.H.V.A. von Andrian, D.L.K. Kasper, *Harvard Medical School, USA* [ST03]

12:15-12:30 Control of fungal microbiota colonization by diet, bacterial metabolites and host innate immunity  
F. Cottier, G. Tso, X.H. Sem, A.S.M. Tan, N. Pavelka\*, *Singapore Immunology Network (SigN), Singapore* [ST04]

12:30-13:30 **Lunch- Fontaine**

13:30-15:00 **Poster session I- Fontaine**

**Session 3: Microbiome, Infection & Cancer- Verdun/Outremont**  
*Session Chair: Bhagi Singh, University of Western Ontario, Canada*

15:00-15:30 Impact of helminth - bacterial interactions on allergic reactivity  
Nicola Harris, *École Polytechnique Fédérale de Lausanne, Switzerland* [INV08]

15:30-16:00 Gut microbiota and anticancer immune responses  
Laurence Zitvogel, *Institute Gustav Roussy, France* [INV09]

16:00-16:15 Microbiome - TP53 gene interaction in human lung cancer  
K.L. Greathouse<sup>\*1</sup>, J.R. White<sup>2</sup>, A.J. Vargas<sup>1</sup>, V. Bliskovsky<sup>1</sup>, E. Polley<sup>1</sup>, A.I. Robles<sup>1</sup>, G. Trinchieri<sup>1</sup>, P.S. Meltzer<sup>1</sup>, J.A. Segre<sup>3</sup>, C.C. Harris<sup>1</sup> et al, <sup>1</sup>*National Cancer Institute, USA*, <sup>2</sup>*Resphera Biosciences, USA*, [ST05]

- 16:15-16:45 **Refreshments- Fontaine**
- 16:45-17:15 Role of the virome and transkingdom interactions within the microbiome in immunity and disease  
Herbert W. Virgin, *Washington University School of Medicine, USA* [INV10]
- 17:15-17:30 Role of microbial metabolites in shaping the intestinal stem cell niche  
H. Ryu\*, G.E. Kaiko, T.S. Stappenbeck, *Washington University in St. Louis, USA* [ST06]
- 17:30-17:45 Akkermansia muciniphila mediates effects of IFN $\gamma$  on glucose metabolism  
R.L. Greer<sup>1</sup>, X. Dong<sup>1</sup>, A.C.F. Moraes<sup>2</sup>, G.R. Fernandes<sup>2</sup>, S.R.G. Ferreira<sup>2</sup>, A.E. Sikora<sup>1</sup>, G.A. Taylor<sup>4</sup>, A.S. Gulati<sup>3</sup>, N. Shulzhenko<sup>1</sup>, A. Morgun\*<sup>1</sup>, <sup>1</sup>*Oregon State University, USA*, <sup>2</sup>*University of Sao Paulo, Brazil*, <sup>3</sup>*University of North Carolina at Chapel Hill, USA*, <sup>4</sup>*Duke University Medical Center, USA* [ST07]
- 19:00-22:30 **Meet the speakers dinner** (ticket holders)

## Tuesday, 29 September 2105

### Session 4: Microbiome and Human Disease - Verdun/Outremont Session Chair: Kent Hayglass, *University of Manitoba, Canada*

- 09:00-09:30 The respiratory tract microbiome in airway disease  
Mike G. Surette, *McMaster University, Canada* [INV11]
- 09:30-10:00 Microbiota-mediated defense against intestinal colonization by antibiotic-resistant pathogens  
Eric Pamer, *Memorial Sloan Kettering Cancer Center, USA* [INV12]
- 10:00-10:15 The interplay between gut microbial dysbiosis and immune dysfunction with age  
N. Thevaranjan\*, A. Puchta, L.P. Schenck, J. Jury, M.G. Surette, E.F. Verdu, D.M.E. Bowdish  
*McMaster University, Canada* [ST08]

### 10:15-10:45 Refreshments- Fontaine

- 10:45-11:15 The role of the microbiota in asthma  
Brett Finlay, *University of British Columbia, Canada* [INV13]
- 11:15-11:45 Systems Vaccinology: Probing the humanity's diverse immune systems with vaccines  
Bali Pulendran, *Emory University, USA* [INV14]
- 11:45-12:00 Inflammatory demyelination in multiple sclerosis correlates with brain microbiota perturbation  
W.G. Branton\*<sup>1</sup>, M.G. Surette<sup>2</sup>, R.A. Holt<sup>3</sup>, J.D. Laman<sup>1</sup>, J.Q. Lu<sup>1</sup>, C.N. Power<sup>1</sup>, <sup>1</sup>*University of Alberta, Canada*, <sup>2</sup>*McMaster University, Canada*, <sup>3</sup>*Genome Sciences Centre, Canada* [ST09]

### 12:00-13:00 Lunch- Fontaine

- 13:00-14:15 **Poster session II- Fontaine**
- 14:15-15:00 **Q&A Session with the Cell Press Editors**

### Session 5: Big Data, Synthetic Biology & the Microbiome - Verdun/Outremont Session Chair: Ciriaco Piccirillo, *McGill University, Canada*

- 15:00-15:30 Technologies for engineering the microbiome  
Timothy Lu, *MIT, USA* [INV15]
- 15:30-16:00 Systems biology, modeling, and cross-meta-omic analysis of the human microbiome  
Elhanan Borenstein, *University of Washington, USA* [INV16]
- 16:00-16:15 Species-function relationships shape ecological properties of the human gut microbiome  
S. Vieira-Silva\*<sup>1,2</sup>, G. Falony<sup>1,2</sup>, G. Lima-Mendez<sup>1,3</sup>, Y. Darzi<sup>1,2</sup>, R. Garcia Yunta<sup>2,3</sup>, S. Okuda<sup>4</sup>, D. Vandeputte<sup>1,2</sup>, F. Hildebrand<sup>2,3</sup>, S. Chaffron<sup>1,3</sup>, J. Raes<sup>1,2</sup>, <sup>1</sup>*KULeuven, Belgium*, <sup>2</sup>*VIB, Belgium*, <sup>3</sup>*VUbrussels, Belgium*, <sup>4</sup>*Niigata University, Japan* [ST10]
- 16:15-16:30 Novel proteomics tools for quantifying host-microbe interactions  
J.S. Lichtman, J.L. Sonnenburg, A. Devabhaktuni, J.E. Elias\*, *Stanford University, USA* [ST11]
- 16:30-17:00 **Refreshments- Fontaine**
- 17:00-17:30 Updated analysis results from the NIH human microbiome project  
Owen White, *University of Maryland, USA* [INV17]
- 17:30-18:15 **Closing Keynote: Stability and resilience of the human microbiome**  
David A. Relman, *Stanford University, USA* [K02]