

LE MICROBIOTE COMMENSAL : DE L'HOMÉOSTASIE À LA MALADIE

THE COMMENSAL MICROBIOTA : FROM HOMEOSTASIS TO DISEASE

A Peter Wall Institute for Advanced Studies and Collège de France symposium jointly organized with Tornado, with the support of the Foundation Hugot

Monday, May 23, 2011

8:45 INTRODUCTION OF THE SYMPOSIUM

Dianne NEWELL (*Director, Peter Wall Institute for Advanced Studies, Vancouver, Canada*)

Brett FINLAY (*Departments of Biochemistry & Molecular Biology and Microbiology & Immunology, University of British Columbia, Vancouver, Canada*)

Philippe SANSONETTI (*Chaire de Microbiologie et maladies infectieuses, Collège de France, Paris, France*)

1. THE HUMAN MICROBIOTA, CONSTITUTION, COMPOSITION, RESILIENCE, VARIATIONS

9:00 **Analysis and modulation of gut microbiota** Arjan NARBAD (*Institute of Food Research, University of Norwich, UK*)

9:30 **Initial bacterial colonization in the development of mucosal host defense** W Allan WALKER (*Harvard Medical School, Boston, USA*)

10:00 **TLR5, Chronic inflammation, and metabolic syndrome** Andy T GEWIRTZ (*Emory University School of Medicine, Atlanta, USA*)

10:30 Coffee break

11:00 **A hard look at how we look at microbiota** Bill MOHN (*University of British Columbia, Vancouver, Canada*)

11:30 **The microbiota in the elderly in health and disease** Fergus SHANAHAN (*Alimentary Pharmabiotic Centre, University College, Cork, Ireland*)

12:00 **The role of the microbiota in enteric infectious diseases** Brett FINLAY (*University of British Columbia, Vancouver, Canada*)

12:30 Lunch

2. THE HOST-MICROBIOTA INTERFACE (1) «EXERTING DEFIANCE, FIGHTING IGNORANCE, LEARNING TOLERANCE» THE THREE PILARS OF HOMEOSTASIS

14:00 **The *Drosophila* intestinal epithelium: an interactive barrier. From steady-stage to pathology** Bruno LEMAÎTRE (*Global Health institute, EPFL, Lausanne, Switzerland*)

14:30 **Mucus - the host-microbial interface** Malin JOHANSSON (*Medical biochemistry, University of Göteborg, Sweden*)

15:00 **Antimicrobial peptides and the regulation of the intestinal microbiome : implications for intestinal homeostasis** Nita H SALZMAN (*Medical College of Wisconsin, Milwaukee, USA*)

15:30 **Uncoupling immune responses against commensal bacteria from intestinal colonisation** Andrew Mc PHERSON (*Inselspital, Bern, Switzerland*)

16:00 Coffee/tea break

16:30 **Microbiota and maturation of gut adaptive immune responses** Nadine CERF-BENSUSSAN (*Necker Hospital - INSERM, Paris, France*)

17:00 **Influence of the microbiota on the host immune system** Dennis KASPER (*Harvard Medical school, Boston, USA*)

17:30 **Host-environment interactions in the ontogeny of the immune system** Tobi KOLLMANN (*University of British Columbia, Vancouver, Canada*)

Tuesday, May 24, 2011

8:45 PRESENTATION OF TORNADO EU NETWORK

Sven PETTERSSON (*Karolinska Institute, Stockholm, Sweden*)

3. THE HOST-MICROBIOTA INTERFACE (2) «EXERTING DEFIANCE, FIGHTING IGNORANCE, LEARNING TOLERANCE» THE THREE PILARS OF HOMEOSTASIS

9:00 **Symbiotic microbiota and the development of innate lymphoid cells** Gérard EBERL (*Institut Pasteur, Paris, France*)

9:30 **Immune response genes versus microbiota in inflammatory disease : The chicken or the egg ?** Kelly Mc NAGNY (*University of British Columbia, Vancouver, Canada*)

10:00 **Epithelial innate immune tolerance in the neonate intestine** Mathias HORNEF (*Medical School, Hannover, Germany*)

10:30 Coffee break

11:00 **Immune system bacterial interactions in the intestine in health and disease** Fiona POWRIE (*John Radcliffe Hospital, University of Oxford, UK*)

11:30 **Innate lymphoid cells : An emerging family of immune regulators and effectors** James DI SANTO (*Institut Pasteur, Paris, France*)

12:00 **Strategies to dampen gut inflammation** Tom Mc DONALD (*Barts and The London School of Medicine & Dentistry, London, UK*)

12:30 Lunch

4. MICROBIOTA AND NUTRITION, FROM PHYSIOLOGY TO PATHOLOGY (OBESITY, INSULIN RESISTANCE, DIABETES, ALLERGY)

14:00 **The gut microbiota and its role in regulation of developmental programming of the brain** Sven PETTERSSON (*Karolinska Institute, Stockholm, Sweden*)

14:30 **Microbiota associated with diabetes** Olli SIMELL (*University of Turku, Helsinki, Finland*)

15:00 **Microbial regulation of host physiology and metabolism – a role for the gut microbiota in metabolic diseases** Fredrick BÄCKHED (*University of Göteborg, Sweden*)

15:30 **Bacterial translocation and metabolic disease** Rémy BURCELIN (*INSERM, Toulouse, France*)

16:00 Coffee/tea break

16:30 **Nuclear receptors and energy homeostasis** Walter WAHLI (*Integrative Genomic Centre, Lausanne, Switzerland*)

17:00 **Pathogens and commensals at mucosal surfaces. The Yin and the Yang of innate immunity** Philippe SANSONETTI (*Microbiology & Infectious Disease, Collège de France and Pasteur Institute, Paris, France*)

17:30 **General discussion and adjournment**