

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Gut Microbiota Modulation of Host Physiology: The Search for Mechanism (C1)

March 1-6, 2015 • Keystone Resort • Keystone, Colorado, USA

Scientific Organizers: Fredrik Bäckhed, Ruth E. Ley and Yasmine Belkaid

Sponsored by Theravance, Inc.

Abstract & Scholarship Deadline: November 3, 2014 / Abstract Deadline: December 2, 2014 / Discounted Registration Deadline: January 5, 2015

SUNDAY, MARCH 1

Registration

MONDAY, MARCH 2

Keynote Address

Herbert (Skip) W. Virgin, Washington University School of Medicine, USA
The Virome Shapes Normal Immune Function and Disease Pathogenesis

Gut Microbiota and Metabolic Disease

Naoko Ohtani, Cancer Institute of JFCR, Japan
Obesity-Induced Gut Microbial Metabolite Promotes Liver Cancer through Senescence Secretome

Fredrik Bäckhed, Gothenburg University, Sweden
Gut Microbiota and Type 2 Diabetes

Liping Zhao, Shanghai Jiao Tong University, China
Dysbiosis of Gut Microbiota as a Checkpoint for the Development of Obesity

Short Talk(s) Chosen from Abstracts

Microbiota-Diet Interactions

Eugene B. Chang, University of Chicago, USA
Interactions between Microbiota, Diet, Genes in IBD

Stanley L. Hazen, Cleveland Clinical Foundation, USA
Microbial Processing of Carnitine and Choline in Relation to Cardiovascular Disease

Patrice D. Cani, Université Catholique de Louvain, Belgium
Talk Title to be Announced

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, MARCH 3

Microbiota-Induction of the Immune System I

Kenya Honda, RIKEN Research Center for Allergy and Immunology, Japan
Regulation of T Cells by the Gut Microbiota

Yasmine Belkaid, NIAID, National Institutes of Health, USA
Control of Tissue Immunity by Commensals

Dan R. Littman, HHMI/New York University School of Medicine, USA
Shaping of the T Cell Repertoire by the Gut Microbiota

Wendy S. Garrett, Harvard School of Public Health, USA
Microbial Metabolites and Adaptive Immunity

Short Talk(s) Chosen from Abstracts

Microbiota-Induction of the Immune System II

Gérard Eberl, Institut Pasteur, France
Microbiota Development of Lymphoid Cells

Fiona M. Powrie, University of Oxford, UK
Mucosal Inflammation: From IBD to Colon Cancer

Andrew J. Macpherson, University of Bern, Switzerland
The Dynamics of Microbial Colonization and Stratification in the Gastrointestinal Tract

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, MARCH 4

Mucus Microbiota Interactions

Gunnar C. Hansson, University of Gothenburg, Sweden
The Mucus Layer as First Line of Defense

Lora V. Hooper, University of Texas Southwestern Medical Center, USA
Immune Defense of the Intestinal Epithelial Surface

Eric Martens†, University of Michigan Medical School, USA
Talk Title to be Announced

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Emerging Areas of Host-Microbiome Interactions

David M. Underhill, Cedars-Sinai Medical Center, USA
Fungal Microflora in the Gut

Julie A. Segre, NHGRI, National Institutes of Health, USA
Skin Microbiome: Bacterial, Fungal Diversity Across the Human Landscape

François Leulier, Institut de Génomique Fonctionnelle de Lyon, France
Host/Lactobacilli Mutualism: Learning on the Fly

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, MARCH 5

Gut Microbiota in Relation to Infectious Diseases

Wolf-Dietrich Hardt, Institute of Microbiology, Switzerland
Salmonella Diarrhea Results from Multiple Pathogen-Microbiota-Host Interactions

Justin L. Sonnenburg, Stanford University, USA
Interactions between the Microbiota and Pathogenic Bacteria

Gabriel Nuñez, University of Michigan, USA
Pattern Recognition Receptors (PRRs) in the Host Immune Response against Microbial Pathogens Commensal Microbiota

Eric G. Pamer, Memorial Sloan-Kettering Cancer Center, USA
Microbiota-Mediated Defense against Antibiotic-Resistant Bacterial Pathogens

Short Talk(s) Chosen from Abstracts

Factors Determining Colonization

Ruth E. Ley, Cornell University, USA
Bacterial Motility and Host-Microbial Interactions

John F. Rawls, Duke University, USA
Microbial Regulation of Host Nutrient Metabolism in the Zebrafish Intestine

Jens Walter, University of Nebraska, Lincoln, USA
Lactobacillus Colonization

Short Talk Chosen from Abstracts

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FRIDAY, MARCH 6

Departure