

# KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

## A Gut-Systemic Perspective for Metabolic Disease (C3)

March 22-26, 2020 • Eldorado Hotel & Spa • Santa Fe, NM, USA

Scientific Organizers: Tony K.T. Lam, Nancy A. Thornberry and Fredrik Bäckhed

Supported by the Directors' Fund

Discounted Abstract & Scholarship Deadline: November 19, 2019 / Abstract Deadline: December 12, 2019 / Discounted Registration Deadline: January 21, 2020

### SUNDAY, MARCH 22

#### Arrival and Registration

### MONDAY, MARCH 23

#### Welcome and Keynote Address

**Ronald M. Evans**, HHMI/The Salk Institute, USA  
*FGFs and FXR*

#### Gut Nutrient Sensing

**Fiona M. Gribble**, University of Cambridge, UK  
*Nutrient Sensing and Gut-Peptide Secreting Cells*

**Eran Elinav**, Weizmann Institute of Science, Israel  
*Host Microbiome Interactions in Health and Disease*

**Gilles Mithieux**, INSERM, France  
*Gut Glucose Sensing*

#### Short Talks Chosen from Abstracts

#### Gut Microbiota Metabolite Interaction

**Christopher B. Newgard**, Duke University Medical Center, USA  
*Amino Acid Sensing*

**Fredrik Bäckhed**, University of Gothenburg, Sweden  
*Microbial Production of Amino Acid Derived Metabolites and Impact on Host Metabolism*

**Elaine Y. Hsiao**, University of California, Los Angeles, USA  
*Microbiota-Diet Interactions in Refractory Epilepsy*

#### Short Talks Chosen from Abstracts

#### Poster Session 1

### TUESDAY, MARCH 24

#### A Regulatory Role of Bile Acid-FXR and Gut-Brain Axis

**Kristina Schoonjans**, École Polytechnique Fédérale de Lausanne – EPFL, Switzerland  
*Bile Acid Signaling*

**Changtao Jiang**, Peking University Health Science Center, China  
*Gut FXR*

**Karine Clément**, INSERM/Sorbonne Université, France  
*Changes in Gut Inflammation Regulate Metabolic Homeostasis in Humans*

**Suzanne Devkota**, Cedars-Sinai Medical Center, USA  
*Role of the Gut Microbiome in the Nutrient Stress-FGF21 Axis*

#### Short Talks Chosen from Abstracts

#### Gut Microbiota, Small Molecules, Genetics, and Gut-Brain Axis (Hot Topics)

**Noah W. Palm**, Yale University, USA  
*Illuminating the 'Dark Matter' of the Gut Microbiota Metabolome*

**Michael A. Fischbach**, Stanford University, USA  
*Small Molecules from the Human Microbiota*

**J. Nicholas Betley**, University of Pennsylvania, USA  
*A Gut-Brain Axis in Regulating Hunger and Pain*

#### Short Talks Chosen from Abstracts

#### Poster Session 2

### WEDNESDAY, MARCH 25

#### Gut-Brain Axis

**Ivan E. de Araujo**, Icahn School of Medicine at Mount Sinai, USA  
*Gut-Brain Neurocircuitry and the Food-Reward System*

**Zachary A. Knight**, University of California, San Francisco, USA  
*Gut-Brain Signaling that Regulates Hunger*

**Nancy A. Thornberry**, Kallyope, Inc., USA  
*Therapeutic Potential of the Gut-Brain Axis*

#### Short Talks Chosen from Abstracts

#### Microbes, Host, Metabolites, Gut-Brain Axis (Hot Topics)

**Margaret J. McFall-Ngai**, University of Hawai'i at Mānoa, USA  
*Microbiota and the Squid*

**Karen Guillemin**, University of Oregon, USA  
*Microbiota and Host Interaction*

**Liping Zhao**, Shanghai Jiao Tong University, China and Rutgers University, USA

*Microbe-Metabolite Signaling in Type 2 Diabetes*

**Filip K. Swirski**, Massachusetts General Hospital, USA  
*Intraepithelial T Cells as Metabolic Gatekeepers*

#### Short Talks Chosen from Abstracts

#### Poster Session 3

### THURSDAY, MARCH 26

#### Gut Immunity

#### Speaker to be Announced

**Daniel Winer**, Toronto General Hospital, Canada  
*Gut Immunometabolism*

**Lora V. Hooper**, University of Texas Southwestern Medical Center, USA

*Mechanisms of Vitamin A Transport in the Intestine*

**Sarkis K. Mazmanian**, California Institute of Technology, USA  
*Selective Modulation of Enteric Neurons Alters the Microbiome and Gut Physiology in Mice*

#### Short Talks Chosen from Abstracts

#### Metabolic Regulation of the Gut-Brain Axis

**Federico E. Rey**, University of Wisconsin–Madison, USA  
*Mechanistic Links between the Gut Microbiome and Atherosclerosis*

**Patrice D. Cani**, Université Catholique de Louvain, Belgium  
*Gut Microbiota, Gut-Brain Axis, Metabolic Regulation*

**Tony K.T. Lam**, Toronto General Research Institute, Canada  
*Gut Microbiota-Nutrient Interaction and Glucose Homeostasis*

#### Short Talk Chosen from Abstracts

#### Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

### FRIDAY, MARCH 27

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### Departure