

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

Sponsored by AstraZeneca

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
Metabolic Effects of Intestinal Gluconeogenesis from Luminal Metabolites

Short Talks Chosen from Abstracts

Workshop

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
Emerging Roles of Bile Acid Signaling in Metabolism and Stemness

Changtao Jiang, Peking University Health Science Center, China
HIF-2 α -Commensal Interactions Regulate Obesity through Bile Acid-TGR5 Axis

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

***Nancy A. Thornberry**, Kallyope, Inc., USA

Paul Richards, Kallyope, USA
Systems Biology Approach to the Study of the Gut-Brain Axis

Ivan E. de Araujo, Icahn School of Medicine at Mount Sinai, USA
Reward, Aversion and the Gut-Brain Axis

Zachary A. Knight, University of California, San Francisco, USA
The Neurobiology of Homeostasis

Short Talks Chosen from Abstracts

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

Margaret J. McFall-Ngai, University of Hawai'i at Mānoa, USA
The Rhythms of Nutrient Provision to the Microbes: Insights from the Squid-Vibrio Symbiosis

Karen Guillemin, University of Oregon, USA
Teaming with Microbes: Lessons from the Zebrafish

Liping Zhao, Shanghai Jiao Tong University, China and Rutgers University, USA
Dietary Fibers and Foundation Guild Gut Microbiota for Human Metabolic Health

Kathryn E. Wellen, University of Pennsylvania, USA
Lesson From Cellular Metabolism: New Targets for Microbiota-Nutrient Sensing Interactions

Poster Session 3

THURSDAY, MARCH 26

Gut Immunity

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

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

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Patrice D. Cani, Université Catholique de Louvain, Belgium
Gut-Brain Axis, Gut Microbiota and Metabolism: Novel Candidates?

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

Departure