



# Serotonin Beyond the Brain

November 12–15, 2017 | Doubletree by Hilton – The Yarrow | Park City, Utah | USA

## Scientific Organizers:

**Fusun Kilic**, University of Arkansas Medical School, USA

**Michael D. Gershon**, Columbia University, USA

**Luc Maroteaux**, UMR-S 839 INSERM / UPMC, France

*Serotonin is a multi-functional signaling molecule that plays extra-cerebral roles, not only in adult life, but in development as well. Although research concerning extra-cerebral serotonin is growing rapidly and interest in the subject is great, the physiological control and underlying molecular processes, as well as the involvement of peripheral serotonin in disease, have not been definitively established. Furthermore, the role of serotonin in peripheral tissues has been neglected and under-represented at current meetings, which have focused on the 3-5% of the body's serotonin that is present in the central nervous system. Therefore, this Keystone Symposia conference aims to reveal insights into the role of serotonin in peripheral tissues, specifically in the diagnosis, prevention and treatment of many diseases, which is long overdue.*

## Session Topics:

- Serotonin, A Major Peripheral Neurohormone
- Serotonin in Bone and Skin
- Serotonin in the Circulatory System
- Serotonin Receptors in Cardiovascular and Pulmonary Functions
- Peripheral Serotonin in Relation to Brain Function and Disorder
- Serotonin in Diseases

**Scholarship Application & Discounted Abstract Deadline: July 11, 2017**

**Abstract Deadline: August 10, 2017**

**Discounted Registration Deadline: September 12, 2017**



Note: Scholarships are available for graduate students and postdoctoral fellows and are awarded based on the abstract submitted. Submitting an abstract is an excellent opportunity to gain exposure for your work. Abstracts submitted by the abstract deadline will also be considered for short talks on the program.

Meeting Hashtag: #KSserotonin  
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# KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

## Frontiers of Serotonin Beyond the Brain (T5)

November 12-15, 2017 • Doubletree by Hilton - Park City • Park City, Utah, USA

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Supported by the Directors' Fund

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### SUNDAY, NOVEMBER 12

#### Arrival and Registration

### MONDAY, NOVEMBER 13

#### Welcome and Keynote Address

**Michael D. Gershon**, Columbia University, USA  
*Serotonergic Regulation of Enteric Neurogenesis*

#### Serotonin, a Major Peripheral Neurohormone

**Elaine Y. Hsiao**, University of California Los Angeles, USA  
*Indigenous bacteria from the gut microbiota regulate host serotonin biosynthesis*

**Gary M. Mawe**, University of Vermont, USA  
*Mucosal Serotonin Signaling in the Gut: Changes in Disease, and Therapeutic Targets*

**Nick J. Spencer**, Flinders University, Australia  
*Generation of Neurogenic Motor Patterns in the Gut Wall, Enteric Mechanosensitivity and Serotonin*

#### Short Talk(s) Chosen from Abstracts

#### Serotonin in a New Drug Target

**Gerard Karsenty**, Columbia University Medical Center, USA  
*Serotonin in Bone*

**Pablo Lapuerta**, Lexicon Pharmaceuticals, Inc., USA  
*Tryptophan Hydroxylase Inhibitors for Carcinoid Syndrome*

**Michael Bader**, Max-Delbrück-Center for Molecular Medicine, Germany  
*Peripheral Serotonin, a New Drug Target*

#### Short Talk Chosen from Abstracts

#### Poster Session 1

### TUESDAY, NOVEMBER 14

#### Keynote Address

**Stephanie Wengert Watts**, Michigan State University, USA  
*5-HT and Blood Pressure: Knowing and Learning*

#### Serotonin in the Circulatory System

**Francine Côté**, Institut Imagine INSERM U1163, France  
*Role of Serotonin in Red Blood Cells Production*

**Harvey J. Kliman**, Yale University, USA  
*The Serotonin Highway in the Human Placenta: Serotonin Transport from Mother to Fetus*

**Fusun Kilic**, University of Arkansas Medical School, USA  
*Thrombosis Associated Hypertension in Overactive Sympathetic Nervous System – Additive Role of Serotonin on Peripheral Catecholamine*

#### Short Talk(s) Chosen from Abstracts

#### Serotonin Receptors in Cardiovascular and Pulmonary Functions

**Laurent Monassier**, Université de Strasbourg, France  
*Heart Disease and Valvulopathy*

**Kevin Currie**, Vanderbilt University School of Medicine, USA  
*Serotonergic Control of the Sympathoadrenal Stress Response*

**Luc Maroteaux**, UMR-S 839 INSERM / UPMC, France  
*Serotonin Receptor Signaling in Development*

#### Short Talk Chosen from Abstracts

#### Poster Session 2

### WEDNESDAY, NOVEMBER 15

#### Peripheral Serotonin in Relation to Brain Function and Development

**Kara Gross Margolis**, NewYork-Presbyterian Morgan Stanley Children's Hospital, USA

*The Involvement of Peripheral Serotonin in Autism*

**Randy D. Blakely**, Vanderbilt University School of Medicine, USA  
*Keeping the Periphery in Mind: Peripheral Inflammatory Modulation of Behavior Mediated by CNS Serotonin*

**Alexandre Bonnin**, University of Southern California, USA  
*Prenatal Exposures and Placental Serotonin: a Pathway for the Fetal Programming of Mental Disorders*

**Hail Kim**, Korea Advanced Institute of Science and Technology, South Korea

*Regulation of Systemic Energy Homeostasis by Peripheral Serotonin*

#### Short Talk(s) Chosen from Abstracts

#### Serotonin in Diseases

**Joanne Wang**, University of Washington, USA  
*Serotonin Transporter Deficiency Drives Estrogen-Dependent Obesity and Glucose Intolerance*

**Robin L. Haynes**, Children's Hospital Boston, USA  
*Peripheral Serotonin in Sudden Infant Death Syndrome*

**Terence Smith**, University of Nevada, USA  
*Critical Role of Serotonin and its Receptors in the Initiation, Generation, and Propagation of Murine Colonic Migrating Motor Complexes*

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

### THURSDAY, NOVEMBER 16

#### Departure