



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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on Molecular and Cellular Biology

Frontiers of Serotonin Beyond the Brain (T5)

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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, California Institute of Technology, 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
Serotonin Stimulates Protein Tyrosyl Phosphorylation and Vascular Contraction via Tyrosine Kinase

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
Placental Serotonin Role in Fetal Brain Development and 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