

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Lipidomics and Functional Metabolic Pathways in Disease (C6)

March 31-April 4, 2019 • Steamboat Grand • Steamboat Springs, Colorado, USA

Scientific Organizers: Sarah Spiegel, Charles N. Serhan and Valerie B. O'Donnell

Supported by the Directors' Fund

Abstract & Scholarship Deadline: November 29, 2018 / Abstract Deadline: December 19, 2018 / Discounted Registration Deadline: January 30, 2019

SUNDAY, MARCH 31

Arrival and Registration

MONDAY, APRIL 1

Welcome and Keynote Address

***Charles N. Serhan**, Brigham and Women's Hospital, USA
Resolvins and Pro-Resolving Mediators in Resolution of Inflammation and Tissue Regeneration

Resolution of inflammation, Infection & Tissues Regeneration

***Charles N. Serhan**, Brigham and Women's Hospital, USA
Gabrielle Fredman, Albany Medical Center, USA
Resolvins and Leukotrienes In Atherosclerotic Plaques in Humans and Mice
Emma Borgeson, University of Gothenburg, Sweden
Lipoxins in Chronic Kidney Diseases

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Workshop: LIPID MAPS Tools and Advances in Lipidomics Techniques

Short Talks Chosen from Abstracts

Lipidomics/Metabolomics – Global Profiling vs. Targeted Analysis

Craig E. Wheelock, Karolinska Institutet, Sweden
Lipid Mediator Metabolic Profiling: Sub-Phenotyping of Respiratory Disease
Markus R. Wenk, National University of Singapore, Singapore
Lipidomic "Deep Profiling": An Enhanced Workflow to Reveal New Molecular Species of Signaling Lipids
***Edward A. Dennis**, University of California, San Diego, USA
Lipidomic Profiling In Nonalcoholic Steatohepatitis
Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, APRIL 2

Keynote Address

***Jesper Z. Haeggstrom**, Karolinska Institute, Sweden
Lina M. Obeid, Stony Brook University Cancer Center, USA
Ceramide is Metabolized to Acylceramide and Stored in Lipid Droplets

Structural Biology in Lipid Metabolism

***Jesper Z. Haeggstrom**, Karolinska Institute, Sweden
Deciphering Molecular Mechanisms Of Enzymes in the 5-Lipoxygenase Pathway
Raymond C. Stevens†, University of Southern California, USA
Binding of Cannabinoids at the CB1 Receptor
Hugh Rosen†, ActivX Biosciences, USA
Development of Next Generation Sphingolipid Receptor Modulators
Short Talk(s) Chosen from Abstracts

Systems Biology of Lipids/Omics

***Peter Ghazal**, University of Edinburgh, Edinburgh Medical School, UK
Lipidomics of Macrophage Virus Infections
Manuel Mayr, King's College, University of London, UK
The Future of Lipidomics: A Multi-Omics Approach to Cardiovascular Disease Risk
Gary Siuzdak, The Scripps Research Institute, USA
Metabolic Drift in the Aging Brain
Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, APRIL 3

Lipidomics and Metabolic Syndrome

***Barbara B. Kahn**, Beth Israel Deaconess Medical Center, Harvard Medical School, USA
Regulation of the Biosynthesis of a Novel Class of Anti-Diabetic Lipids
Claudio Villanueva, University of Utah School of Medicine, USA
Global Analysis of Plasma Lipids Identifies Liver-Derived Acylcarnitines as a Fuel Source for Brown Fat
Speaker to be Announced
Morris J. Birnbaum, Pfizer Inc., USA
Pharma and Academia Cross-Talk and the Metabolic Syndrome
Short Talk(s) Chosen from Abstracts

Cancer Lipidomics

***Sarah Spiegel**, Virginia Commonwealth University, USA
Michael J.O. Wakelam, Babraham Institute, UK
Cohort Lipidomics of Cancer
Tim F. Greten, NCI, National Institutes of Health, USA
Lipid Metabolism Dysfunction in NAFLD Effects on T Lymphocytes and Hepatocarcinogenesis
Yusuf A. Hannun, Stony Brook Cancer Center, USA
A New Twist to the Emerging Functions of Sphingolipids in Cancer
Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, APRIL 4

Lipid Signaling in Inflammation

***Valerie B. O'Donnell**, Cardiff University, UK
Enzymatic Oxidation of Phospholipids in Innate Immunity and Defense
Diane K. Jorkasky, Complexa, Inc., USA
Talk Title to be Announced
Marcus Conrad, Helmholtz Zentrum München, Germany
Oxidized Phospholipids in Ferroptosis and Neurodegeneration
Gerhard Krönke, Universitätsklinikum Erlangen, Germany
Lipid Oxidation as Regulative Element during Immune Tolerance and Hemostasis
Short Talk(s) Chosen from Abstracts

Lipid Recognition by the Adaptive Immune System

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***Jamie Rossjohn**, Monash University, Australia

How T Cells Sense Lipids

Graham S. Ogg, University of Oxford, UK

Skin Based Allergies and Lipids

Chyung-Ru Wang, Northwestern University Feinberg School of
Medicine, USA

T Cell Mouse Models and Lipid Immunity

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

FRIDAY, APRIL 5

Departure