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

Speaker to be Announced

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Systems Biology of Lipids/'Omics

*Peter Ghazal, Cardiff University, 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