

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Phosphoinositide Biology: New Therapeutic Targets Beyond Class I PI3K (B5)

February 11-15, 2018 • Sagebrush Inn & Suites • Taos, New Mexico, USA

Scientific Organizers: Emilio Hirsch, Tamas Balla and Cristina Donini

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 10, 2017 / Abstract Deadline: November 8, 2017 / Discounted Registration Deadline: December 12, 2017

SUNDAY, FEBRUARY 11

Arrival and Registration

MONDAY, FEBRUARY 12

Welcome and Keynote Address

Pietro V. De Camilli, Yale University School of Medicine, USA
Phosphoinositide Signaling in the Control of Membrane Dynamics and Interactions

Phosphoinositide Gradients and Lipid Transport at Membrane Contact Sites

Bruno Antony, Institut de Pharmacologie Moleculaire et Cellulaire, France
Cholesterol Transport Driven by PI4P Gradients from the ER to Golgi

Tamas Balla, NICHD, National Institutes of Health, USA
The Role of PI4KA in Controlling Membrane Lipid Dynamics

Jen Liou, UT Southwestern Medical Center, USA
The Role of ER-PM Contacts in Phosphoinositide Homeostasis and Ca²⁺ Signaling

Short Talk(s) Chosen from Abstracts

PI 4-Kinases as Possible Drug Targets

Nihal Altan-Bonnet, NHLBI, National Institutes of Health, USA
Viral Tailgating with Lipids

Kasturi Haldar, University of Notre Dame, USA
Targeting a Mechanism of Artemisinin Resistance in Plasmodium falciparum Malaria

Cristina Donini, Medicines for Malaria Venture, Switzerland
Plasmodium PI4K Inhibitor as Potential Malarial Treatment

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, FEBRUARY 13

Inositide Phosphatases in Cancer and Development

Pier Paolo Pandolfi, Beth Israel Deaconess Medical Center, Harvard Medical School, USA
PIP Phosphatases in Cancer

Jeremy F. Reiter, University of California, San Francisco, USA
The Role of Phosphoinositides in Ciliogenesis

Christina Anne Mitchell, Monash University, Australia
Regulation of Phosphoinositide Signaling by Inositol Polyphosphate Phosphatases

Antonella De Matteis, Telethon Institute of Genetics and Medicine, Italy
The Phosphoinositides and the Golgi Complex

Short Talk(s) Chosen from Abstracts

Workshop: New and Emerging Paradigms and Possible Drug Targets

Short Talks Chosen from Abstracts

Structural Insights into Pharmacological Targeting of Lipid Kinases

John E. Burke, University of Victoria, Canada
Recent Advances in Understanding the Structural Basis of PI4K Inhibition

Ujjini H. Manjunatha, Novartis Institute for Tropical Diseases, USA
Cryptosporidium Lipid Kinase Is a Promising Molecular Target To Treat Cryptosporidiosis

Roger L. Williams, Medical Research Council, UK
Structural Mechanisms of Regulation of the PI3K Superfamily
Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, FEBRUARY 14

Phosphoinositides Directing Trafficking for Degradation

Lois S. Weisman, University of Michigan, USA
Phosphatidylinositol 3,5-Bisphosphate: Roles and Regulation in Health and in Diseases

Haoxing Xu, University of Michigan, USA
Lipid Regulation of Lysosomal Ion Channels

Mariella Vicinanza, Cambridge Institute for Medical Research, UK
PI(5)P Regulates Autophagy

Leon O. Murphy, Third Rock Ventures, USA
VPS34 and Autolysosomal Regulation

Short Talk(s) Chosen from Abstracts

Monoinositide Phosphatases

Volker Haucke, Leibniz Institut für Molekulare Pharmakologie, Germany
Phosphoinositide Conversion Directs Vesicular Trafficking

Jocelyn Laporte, Institute of Genetics and Molecular and Cellular Biology, France
Myotubularin Phosphoinositides Phosphatases Implication and Targeting in Neuromuscular Diseases

Amy Kiger, University of California, San Diego, USA
MTMR13 and RAB21 in Autophagy

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, FEBRUARY 15

Beyond Class I PI 3-Kinases

Emilio Hirsch, Fondazione per la Ricerca Biomedica – ONLUS, Italy
Class II PI3K Signaling in Cancer

Bart Vanhaesebroeck, University College London, Cancer Institute, UK
Class II and III PI3Ks as New Therapeutic Targets

James Dowling, Hospital for Sick Children, Canada
Class II PI3Ks and PI3P Signaling in Muscle Development and Disease

Jonathan M. Backer, Albert Einstein College of Medicine, USA
PI3K Signaling in Tumor Cell Invasion

Short Talk(s) Chosen from Abstracts

PIP Kinases as Emerging Drug Targets

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Lewis C. Cantley, Weill Cornell Medicine, USA

Type 2 Phosphatidylinositol-5-Phosphate 4-Kinases in Cancer

Richard A. Anderson, University of Wisconsin Medical School, USA

Agonist-Stimulated Phosphatidylinositol 3,4,5-Trisphosphate

Generation by Scaffolded Phosphoinositide Kinases

Atsuo T. Sasaki, University of Cincinnati, USA

PI5P4Kbeta is an Intracellular GTP Sensor for Metabolism and

Tumorigenesis

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

FRIDAY, FEBRUARY 16

Departure