

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Sensing and Signaling of Hypoxia: Interfaces with Biology and Medicine (A1)

January 7-12, 2014 • Beaver Run Resort • Breckenridge, Colorado, USA

Scientific Organizers: Peter J. Ratcliffe, L. Eric Huang, Michael Ohh and Cynthia M. Beall

Supported by the Directors' Fund

Abstract & Scholarship Deadline: September 12, 2013 / Abstract Deadline: October 9, 2013 / Discounted Registration Deadline: November 7, 2013

TUESDAY, JANUARY 7

WEDNESDAY, JANUARY 8

Keynote Address

William G. Kaelin, Jr., Dana Farber Cancer Institute, USA
Interplay of Oncogenic and Hypoxia Signaling Pathways

Hypoxia Signaling

L. Eric Huang, University of Utah, USA
Non-Canonical Signaling through HIF Pathways

Stephen Lee, University of Ottawa, Canada
Hypoxia in the Regulation of Protein Synthesis

Peter J. Ratcliffe, University of Oxford, UK
Genomic Analysis of Hypoxia Signaling Pathways

Short Talk(s) Chosen from Abstracts

Workshop 1: Junior Investigators and Late-Breaking News

Short Talks Chosen from Abstracts

Hypoxia Signaling in Inflammation and Immunity

Randall S. Johnson, University of Cambridge, UK
Diverse Roles of Hypoxia Signaling in Inflammation

Drew M. Pardoll, Johns Hopkins University School of Medicine, USA
HIF-1, Metabolism and T Cell Differentiation

Speaker to be Announced

Short Talk Chosen from Abstracts

Poster Session 1

THURSDAY, JANUARY 9

Genetic Adaption to Hypoxia

Cynthia M. Beall, Case Western Reserve University, USA
Human Population Adaptation to Hypoxia at Altitude

Jay F. Storz, University of Nebraska, USA
Genetic Adaption to Hypoxia

Tatum S. Simonson, University of California, San Diego, USA
Genetic Selection of Hypoxia-Related Traits at Altitude

Short Talk(s) Chosen from Abstracts

Oxygen and Nutrient Signaling in Model Organisms

Utpal Banerjee, University of California, Los Angeles, USA
Micro-Environmental Hypoxia and Nutrient Sensing in Cell Fate Determination in the Fly

Christopher West, University of Oklahoma, USA
Environment Sensing by Prolyl Hydroxylases in Dictyostelium

Peter J. Espenshade, Johns Hopkins School of Medicine, USA
Oxygen Sensing by O₂ in Fission Yeast

Short Talk Chosen from Abstracts

Poster Session 2

FRIDAY, JANUARY 10

Signaling of Hypoxia in Health and Disease

Serpil Erzurum, Cleveland Clinic Foundation, USA
New Insights into Hypoxia and Pulmonary Vascular Biology

Nanduri R. Prabhakar, University of Chicago, USA
Interplay of Hypoxia and Gaseous Signaling in Respiratory Control

Lorna G. Moore, University of Colorado Denver, USA
Trans-Generational Effects of Hypoxia at Altitude

Short Talk(s) Chosen from Abstracts

Workshop 2: From Molecular to Integrative Physiology in Health and Disease

Short Talks Chosen from Abstracts

Metabolic Regulation and Hypoxia

Matthew G. Vander Heiden, Massachusetts Institute of Technology, USA
Metabolic Fluxes and Growth Control in Cancer

Wilhelm Krek, ETH Zurich, Switzerland
The Role of Hypoxia Inducible Factors in Cardiac and Adipose Metabolism

Navdeep S. Chandel, Northwestern University, USA
Metabolic Signaling to and from the Mitochondrion

Tak W. Mak, Campbell Family Institute for Breast Cancer Research at Princess Margaret Hospital, UHN, Canada
Epigenetic Regulation of Hematopoiesis by 2-HG and TET Oxygenases

Short Talk Chosen from Abstracts

Poster Session 3

SATURDAY, JANUARY 11

Cell Differentiation and Stem Cell Biology

Toshio Suda, Keio University, Japan
Metabolic Regulation of Hematopoietic Function

M. Celeste Simon, HHMI/University of Pennsylvania, USA
HIF-1 and HIF-2: Signal Cross-Talk and Cell Differentiation

Hannele Ruohola-Baker, University of Washington, USA
Role of Hypoxia Inducible Factors in Stem Cell Transitions

Amato J. Giaccia, Stanford University, USA
Role of Osteoprogenitors in the Regulation of Erythropoiesis

Short Talk(s) Chosen from Abstracts

New Horizons for Hypoxia Signaling

Gregg L. Semenza, Johns Hopkins University School of Medicine, USA
Hypoxia Inducible Factor as a Therapeutic Target

Michael Ohh, University of Toronto, Canada
Novel Roles and Regulators of Hypoxia Signaling

Christopher J. Schofield, University of Oxford, UK
Implications of the Expanding Biology of 2 Oxoglutarate-Dependent Oxygenases

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Richard K. Bruick, University of Texas Southwestern Medical Center,
USA

Selective Modulation of HIF-2alpha by Small Molecules

Short Talk Chosen from Abstracts

SUNDAY, JANUARY 12