

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Therapeutic Targeting of Hypoxia-Sensitive Pathways (V1)

April 10-14, 2018 • University of Oxford Mathematical Institute • Oxford, UK

Scientific Organizers: Chris W. Pugh, Pablo Wappner, Johanna Myllyharju and Moira K. Whyte

Sponsored by Akebia Therapeutics

Abstract & Scholarship Deadline: December 11, 2017 / Abstract Deadline: January 10, 2018 / Discounted Registration Deadline: February 13, 2018

TUESDAY, APRIL 10

Arrival and Registration

WEDNESDAY, APRIL 11

Welcome and Keynote Address

Peter J. Ratcliffe, University of Oxford, UK
New Horizons in Hypoxia Biology and Therapeutics

Acute Oxygen-Sensing

Mark A. Krasnow, Stanford University School of Medicine, USA
Acute Oxygen Sensing in the Lungs and Carotid Body

Francesco Licausi, Scuola Superiore Sant'Anna, Italy
Harnessing the Oxygen Sensing Mechanism of Plants

Betty A. Eipper, University of Connecticut Health Center, USA
Peptidylglycine alpha-Amidating Monooxygenase (PAM), a Conserved Secretory Pathway Enzyme, Is Sensitive to Physiologically Relevant Changes in Oxygen

Short Talk(s) Chosen from Abstracts

Hypoxia and Organ (dys)Function

Johanna Myllyharju, University of Oulu, Finland
Transmembrane Prolyl 4-Hydroxylase (P4H-TM/PHD4) – Further Light into the Roles of this Enigmatic Enzyme

Dörthe M. Katschinski, Georg August University, Germany
The HIF-PHD Pathway in the Cardiovascular System

Volker H. Haase, Vanderbilt University, USA
Oxygen sensing in the kidney

Short Talk Chosen from Abstracts

Poster Session 1

THURSDAY, APRIL 12

Hypoxia and Development

Hesham A. Sadek, University of Texas Southwestern Medical Center, USA
Heart Development

Josh Bonkowsky, University of Utah School of Medicine, USA
Hypoxia and Connectivity in the Developing Vertebrate Nervous System

Ernestina Schipani, University of Michigan, USA
Impairment of Mitochondrial Respiration Promotes Survival of HIF-1alpha Deficient Chondrocytes in vivo

Pablo Wappner, Fundacion Instituto Leloir, Argentina
Cellular and Developmental Adaptations to Hypoxia. Lessons from Drosophila melanogaster

Short Talk(s) Chosen from Abstracts

Clinical Inhibitors of HIF Hydroxylases and HIFs

Speaker to be Announced

Late Breaking Industrial Trial on Treatment of Anaemia

Christopher J. Schofield, University of Oxford, UK
Inhibiting 2-Oxoglutarate Oxygenases for Therapeutic Benefit

Chris W. Pugh, University of Oxford, UK
Review of Other Indications / Complications

Poster Session 2

FRIDAY, APRIL 13

Immune and Inflammatory Effects of Hypoxia

Moira K. Whyte, MRC/UoE Centre for Inflammation Research, University of Edinburgh, Queen's Medical Research Institute, UK
Hypoxic Regulation of Lung Injury and Repair

Yun-Cai Liu, La Jolla Institute for Allergy and Immunology, USA
VHL-HIF-Glycolytic Pathway in Immune Regulation

Sarah R. Walmsley, University of Edinburgh, Queen's Medical Research Institute, UK
Hypoxia and Regulation of Inflammation and Anti-Microbial Responses

Nicholas P. Restifo, NCI, National Institutes of Health, USA
Tumour Immunity and Metastasis

Short Talk(s) Chosen from Abstracts

Hypoxia and Stem Cell Function

Kamil R. Kranc, University of Edinburgh, UK
Hypoxia Signaling in Normal and Malignant Haematopoiesis

Paul R. Riley, University of Oxford, UK
The Role of Hypoxia and HIF-signalling in Epicardial Activation during Neonatal Cardiac Regeneration

Eduardo Berra, CIC bioGUNE, Spain
Talk Title to be Announced

Short Talk(s) Chosen from Abstracts

Poster Session 3

SATURDAY, APRIL 14

Tissue Degeneration, Regeneration and Programming

Peppi Koivunen, University of Oulu, Finland
HIF Prolyl 4-Hydroxylase Inhibition in Fatty Liver Diseases

Sean P. Colgan, University of Colorado Denver, USA
Hypoxia and HIF as Regulators of Barrier Function in the Mucosa

Dino A. Giussani, University of Cambridge, UK
Heart Disease Link to Fetal Hypoxia: An Intergenerational Perspective

Tracey A. Rouault, NICHD, National Institutes of Health, USA
Translational Regulation of HIF2 alpha and Erythropoiesis by the IRE-IRP System

Short Talk Chosen from Abstracts

Epigenetic and Pan-Genomic Effects of Hypoxia

Raul Mostoslavsky, Massachusetts General Hospital, Harvard Medical School, USA

Linking Epigenetics, Metabolism and Cancer: Lessons from SIRT6

Skirmantas Kriaucionis, University of Oxford, UK
TET Proteins and 5-Hydroxymethylcytosine in Transcription

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Joaquín M. Espinosa, University of Colorado Boulder, USA
Mechanisms of Transcriptional Regulation during the Hypoxic Response

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

SUNDAY, APRIL 15

Departure