SUNDAY, MAY 17
Arrival and Registration

MONDAY, MAY 18
Welcome and Keynote Address (Z2)
Heinrich Heine University Düsseldorf, Germany
Oxidative Stress: Eustress and Distress

Welcome and Keynote Address (Z1)
Massachusetts General Hospital, USA
Mitochondrial Systems Biology

Evolution of ROS Signaling (Z2)
Columbia University, USA
Translating Nrf2-regulated Translation in Pancreatic Cancer

Gerald S. Shadel, The Salk Institute for Biological Studies, USA
Adaptive Mitochondrial ROS Signaling - From Yeast to Mice

Navdeep S. Chandel, Northwestern University, USA
Using Genetics to Uncover Redox Biology

Short Talks Chosen from Abstracts

Systems Approaches to Mitochondrial Biology (Z1)
Princeton University, USA
Mitochondrial Metabolomics

Effie Tozzo, Mitobridge, Inc., USA
Developing Novel Small Molecule Therapeutics to Improve Mitochondrial Function

Dave Pagliarini, University of Wisconsin-Madison, USA
Defining Mitochondrial Protein Function through Systems Biochemistry

Short Talks Chosen from Abstracts

Workshop: Methods to Quantify ROS and Redox-States (Z2)
University of Chicago, USA

Bryan C. Dickinson, University of Chicago, USA

Tobias P. Dick, German Cancer Research Center, Germany
Genetically Encoded Redox Probes

Stress-Responsive Quality Control (Joint)
Social Profit Network Research Laboratory, USA
Cardiolipin Orchestrates Mitochondria Structure and Function

Heidi M. McBride, McGill University, Canada
Redox Regulation of Mitochondrial Remodeling

Cole M. Haynes, University of Massachusetts Medical School, USA
Mitochondrial Unfolded Protein Response (mtUPR)

Short Talks Chosen from Abstracts

Tuesday, May 19
Physiological Effects of ROS Signals (Z2)
Medical Research Council, UK
Mitochondrial Metabolite Signaling in Health and Disease

Eric M. Verdin, Buck Institute for Research on Aging, USA
Mitochondrial Protein Acylation

Philipp Gut, Nestlé Institute of Health Sciences, Switzerland
Autophagy and Oxidative Damage Removal

Michael Ristow, Swiss Federal Institute of Technology Zurich - ETH, Switzerland
Redox Regulation of Metabolic Diseases and Aging

Short Talks Chosen from Abstracts

Mitochondrial Translation (Z1)
Whitehead Institute for Biomedical Research, USA
Talk Title to be Announced

L. Stirling Churchman, Harvard Medical School, USA
Co-regulation of Mitochondrial and Nuclear Gene Expression Programs

Alice Y. Ting, Stanford University, USA
Methods to Discover Proteins and RNA at the Outer Mitochondrial Membrane

Tao Pan, University of Chicago, USA
Mitochondrial tRNA Modification and Translation

Short Talks Chosen from Abstracts

(Seleno-) Cysteines as ROS Relays (Z2)
The Scripps Research Institute, USA

Kate Carroll, The Scripps Research Institute, USA
Cysteine Modifications and ROS Sensing

Tobias P. Dick, German Cancer Research Center, Germany
Redox Relays in Metabolic Regulation

Vadim Gladyshev, Brigham & Women's Hospital, USA
Selenocysteine-Mediated ROS Signaling

Short Talks Chosen from Abstracts

Mitochondrial Signaling and Regulation (Z1)
Netherlands
Mitochondrial Medicine

Valentina Perissi, Boston University School of Medicine, USA
Metabolic Adaptation via Mitochondria Retrograde Signaling

Mike Ryan, Monash University, Australia
Regulated Assembly of Complex I

Short Talks Chosen from Abstracts

* Session Chair † Invited but not yet accepted Program current as of February 17, 2020. Program subject to change. Meal formats are based on meeting venue. For the most up-to-date details, visit https://www.keystonesymposia.org.
KEYSTONE SYMPOSIA
on Molecular and Cellular Biology

Adaptive ROS Signaling in Physiology and Disease (Z2)
Scientific Organizers: Michael Ristow, Navdeep S. Chandel, Marcia C. Haigis and Yvonne M. Janssen-Heininger
Supported by the Directors’ Fund

Mitochondrial Biochemistry in Health and Disease (Z1)
Scientific Organizers: Dave Pagliarini, Benjamin Tu and Alice Y. Ting
May 17-21, 2020 • Whistler Conference Centre • Whistler, BC, Canada
Supported by the Directors’ Fund


Poster Session 2

WEDNESDAY, MAY 20

Retrograde Signaling (Joint)
Marcia C. Haigis, Harvard Medical School, USA
Mitochondrial Signaling in the Tumor Microenvironment
Edward Owusu-Ansah, Columbia University, USA
Regulation of Complex I Assembly in Drosophila
Agnieszka Chacinska, University of Warsaw, Poland
Redox Regulation of Protein Translocation
Bryan C. Dickinson, University of Chicago, USA
Lipid Signaling in Mitochondria
Short Talks Chosen from Abstracts

ROS and Aging (Z2)
T. Keith Blackwell, Joslin Diabetes Center and Harvard Medical School, USA
Transcriptional Stress Response Signaling
Siegfried Hekimi, McGill University, Canada
The RAS protein is a target of pro-longevity cytoplasmic hydrogen peroxide signaling in Caenorhabditis elegans
Doris Germain, Icahn of Medicine at Mount Sinai, USA
Mitohormesis Regulates Cancer Metastasis
Short Talks Chosen from Abstracts

Mitochondrial Metabolism (Z1)
Benjamin Tu, University of Texas Southwestern Medical Center, USA
Mitochondrial Redox Signaling
Yasemin Sancak, University of Washington, USA
Mitochondrial Calcium Signaling
Hongying Shen, Massachusetts General Hospital/Harvard Medical School, USA
Solving the Puzzles in Mitochondrial Metabolism
Short Talks Chosen from Abstracts

Poster Session 3

THURSDAY, MAY 21

Redox Control of Cancer and Malignant Growth (Z2)
Tak W. Mak, Campbell Family Institute for Breast Cancer, Canada
Targeting ROS for Cancer Therapy
Marcus Conrad, Helmholtz Zentrum München, Germany
Ferropoptosis
Guido Kroemer, Cordeliers Research Center, France
Organelle-Specific Oxidative Stress: Adaptive versus Lethal Signaling
Karen H. Vousden, Francis Crick Institute, UK
Roles of ROS in Cancer Development and Progression
Short Talks Chosen from Abstracts

Mitochondrial Biogenesis (Z1)
Toshiya Endo, Kyoto Sangyo University, Japan
Protein trafficking for biogenesis and maintenance of mitochondria
Maulik Patel, Vanderbilt University, USA
Mutant Mitochondrial Genomes Exploit Nutrient Status to Proliferate
Matthew Sieber, University of Texas Southwestern Medical Center, USA
Defining the Mechanisms that Drive Mitochondrial Remodeling during Cellular Quiescence
Short Talks Chosen from Abstracts

Redox Control of Growth and Differentiation (Z2)
Ruma Banerjee, University of Michigan, USA
Modulation of Mitochondrial Bioenergetics by H2S
Yimon Aye, École polytechnique fédérale de Lausanne, Switzerland
Signaling is in our blood: illuminating atypical stress response in neutrophils
Yvonne M. Janssen-Heininger, University of Vermont, USA
Glutathionylation of Proteins as a Redox Signal
Short Talk Chosen from Abstracts

Mitochondrial Dynamics, Trafficking, and Interorganellar Contacts (Z1)
Thomas L. Schwarz, Children's Hospital Boston and Harvard Medical School, USA
Moving and Anchoring Mitochondria
Jennifer A. Lippincott-Schwartz, Howard Hughes Medical Institute - Janelia Farm, USA
Emerging Imaging Technologies to Study Mitochondria Architecture, Dynamics and Function
David C. Chan, California Institute of Technology, USA
Mitochondrial Dynamics in Tissue Physiology
Maya B. Schuldiner, Weizmann Institute of Science, Israel
Mitochondrial Interorganellar Contacts
Short Talk Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Z2)
Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Z1)
FRIDAY, MAY 22
KEYSTONE SYMPOSIA
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