Save the Date for the 2014 Keystone Symposia meeting on:

Mitochondrial Dynamics and Physiology

February 18–23, 2014

Santa Fe Community Convention Center
Santa Fe, New Mexico, USA

Scientific Organizers: Rodrigue Rossignol and Heidi M. McBride

joint with the meeting on “The Chemistry and Biology of Cell Death”

The conference will:

• Provide a multi-disciplinary consideration of mitochondrial research spanning various domains of biology and medicine including innate immunity, bioenergetics and chemoresistance, and disease ranging from neurodegenerative, psychiatric and cardiovascular disorders to cancer and rare diseases;

• Incorporate a session on regenerative medicine dedicated to the emerging role of mitochondrial physiology in stem cell biology and development;

• Provide additional opportunities for interdisciplinary interactions as a result of the joint meeting on “The Chemistry and Biology of Cell Death,” which will share a keynote address and plenary session with this meeting.

For more information and to view the full program, visit www.keystonesymposia.org/14Q5

Discounted Abstract Deadline: October 17, 2013
Student/Postdoc Scholarship Application Deadline: October 17, 2013
Abstract Deadline: November 21, 2013
Discounted Registration Deadline: December 17, 2013
**Mitochondrial Dynamics and Physiology (Q5)**

**Scientific Organizers:** Rodrigue Rossignol and Heidi M. McBride

**Sponsored by Nestlé Institute of Health Sciences**

**The Chemistry and Biology of Cell Death (Q6)**

**Scientific Organizers:** Guy S. Salvesen, Matthew S. Bogyo and Jennie R. Lill

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**Abstract & Scholarship Deadline:** October 17, 2013 / Abstract Deadline: November 21, 2013 / Discounted Registration Deadline: December 17, 2013

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**TUESDAY, FEBRUARY 18**

Arrival and Registration

**WEDNESDAY, FEBRUARY 19**

Keynote Session (Joint)

*Guy S. Salvesen*, Sanford-Burnham Medical Research Institute, USA  
*Rodrigue Rossignol*, University of Bordeaux, France  
**Vishva M. Dixit**, Genentech, USA  
**Jodi Nunnari**, University of California, Davis, USA

The Behavior of Mitochondria

Mitochondria and Death (Joint)

*Sally A. Kornbluth*, Duke University Medical Center, USA  
*Heidi M. McBride*, McGill University, Canada  
**David W. Andrews**, Sunnybrook Research Institute, Canada  
**Sharan R. Srinivasan**, Walter and Eliza Hall Institute of Medical Research, Australia

Shedding Light on the Mechanisms of Action of Bcl-2 Family Proteins

*Richard J. Youle*, NINDS, National Institutes of Health, USA  
**Dhyan Chandra**, Roswell Park Cancer Institute, USA  
**Sarah H. MacKenzie**, University of Otago, New Zealand

Damage Control - How the Pink1/Parkin Pathway CanRegulate Removal of Impaired Mitochondria by Autophagy

*Robert A. Screaton*, Sunnybrook Research Institute, Canada  
**Matthew S. Bogyo**, Stanford University School of Medicine, USA  
**Guillaume Lesseene**, Walter and Eliza Hall Institute of Medical Research, Australia

A Chemical Biology Approach for the Selective Imaging and Inhibition of Caspases

**Peter E. Czabotar**, Walter and Eliza Hall Institute of Medical Research, Australia  
Crystal Structures of Bax and Bak Reveal Molecular Events Initiating Apoptosis

Poster Session 1

**THURSDAY, FEBRUARY 20**

**Mitochondrial Dynamics (Q5)**

*Jodi Nunnari*, University of California, Davis, USA  
*Heidi M. McBride*, McGill University, Canada  
**Gia K. Voeltz**, University of Colorado Boulder, USA  
**Stefan Strack**, University of Iowa, USA

Regulation of Mitochondrial Fission in Neuronal Development and Synaptic Plasticity

**Heidi M. McBride**, McGill University, Canada  
**Jodi Nunnari**, University of California, Davis, USA  
**Guillaume Lesseene**, Walter and Eliza Hall Institute of Medical Research, Australia

A Role for Actin, Formins and Myosin II in Mammalian Mitochondrial Fission

**Brent R. Stockwell**, Columbia University, USA  
**Richard J. Youle**, NINDS, National Institutes of Health, USA

Probing Cell Death with Small Molecules

**Mark B. Hampton**, University of Otago, New Zealand  
**Matthew S. Bogyo**, Stanford University School of Medicine, USA  
**Sarah H. MacKenzie**, North Carolina State University, USA

Reactive Oxygen Species and Cell Death

**Sharan R. Srinivasan**, University of Michigan, USA  
**Brent R. Stockwell**, Columbia University, USA  
**Sarah H. MacKenzie**, North Carolina State University, USA

Short Talk: A Natural Peptide Binds to an Allosteric Site in Caspase-3

**Sarah H. MacKenzie**, North Carolina State University, USA  
**Sharan R. Srinivasan**, University of Michigan, USA  
**Guillaume Lesseene**, Walter and Eliza Hall Institute of Medical Research, Australia

Short Talk: Novel, Potent and Selective Inhibitors of the Pro-Survival BCL-2 Family Member BCL-XL

**Poster Session 2**

Workshop 1: Mitochondrial Research and Drug Discovery (Q5)

*Thomas Langer*, CECAD Research Center, Germany

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* Session Chair  † Invited but not yet accepted  Program current as of November 13, 2018. Program subject to change. Meal formats are based on meeting venue.  
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Workshop 1: Autophagy and Mitophagy (Q6)

*Lisa M. Lindqvist, Walter and Eliza Hall Institute of Medical Research, Australia

**Bcl-2, Bcl-xL and Mcl-1 Are Not Major Regulators of Autophagy

Juliane C. Campos, University of Sao Paulo, Brazil

Disrupted Mitochondrial Dynamics and Impaired Autophagy in Heart Failure: Impact of Exercise Training

Isabella Caniggia, Lunenfeld-Tanenbaum Research Institute, Canada

Disruption of Sphingolipid Metabolism Augments Placental Autophagy

Kelly Sullivan, University of Colorado, USA

Mechanisms of p53-Dependent Cell Fate Choice

Aditya Murthy, Genentech, Inc., USA

A Crohn's Disease Mutation in the Autophagy Gene Atg16L1 Facilitates its Caspase-Mediated Degradation

Gavin Clive Higgins, Baker IDI Heart and Diabetes Institute, Australia

Impaired Mitophagy Activity in Experimental Diabetic Nephropathy

Malle Kuum, University of Tartu, Estonia

Directed Laser Irradiation-Based Method to Study Selective Mitophagy in Neurons

Baris Bingol, Genentech, Inc., USA

DUBs Regulate the Parkin/PINK1 Mitophagy Pathway

Mitochondria as Signaling Platform (Q5)

*Andrew G. Dillin, University of California, Berkeley, USA

Marcia C. Haigis, Harvard Medical School, USA

Mitochondrial Dynamics in Metabolic Adaptation

Zhijian 'James' Chen, University of Texas Southwestern Medical Center, USA

The Mitochondrial Pathway of Antiviral Innate Immune Response

David C. Chan, California Institute of Technology, USA

Molecular Regulation of Mitochondrial Dynamics

Andrea Rasola, Università degli Studi di Padova, Italy

Short Talk: The Mitochondrial Chaperone TRAP1 and Neoplastic Transformation

"Deathomics" (Q6)

*Matthew S. Bogyo, Stanford University School of Medicine, USA

Jennie R. Lill, Genentech, Inc., USA

Caspase Substrate Discovery

James A. Wells, University of California, San Francisco, USA

Caspase Kinetics

Harris G. Fienberg, Stanford University, USA

Network Rewiring Is Critical for Non-Genetic Resistance to TRAIL

James A. Clulow, Imperial College London, UK

Short Talk: Unravelling the Targets of Electrophilic Natural Products using Quantitative Activity-Based Chemical Proteomics

FRIDAY, FEBRUARY 21

Quality Control (Q5)

*Richard J. Youle, NINDS, National Institutes of Health, USA

Cole M. Haynes, University of Massachusetts Medical School, USA

Coordinating Repair and Regeneration of Defective Mitochondrion via the UPRmt

Jared Rutter, University of Utah, USA

Functionalizing the Unannotated Mitochondrial Proteome

Dario C. Altieri, Wistar Institute, USA

Mitochondrial Chaperones

Koji Okamoto, Osaka University, Japan

Targeting Autophagy for Mitochondrial Clearance

Giovanni Bénard, INSERM, France

Short Talk: Mitochondrial Turnover and Energy Metabolism

Post-Translational Control of Cell Death (Q6)

*Andreas E. Strasser, Walter and Eliza Hall Institute of Medical Research, Australia

John Silke, Walter and Eliza Hall Institute of Medical Research, Australia

cIAPs and Sharpin Regulate TNF/MLKL Dependent Necroptotic Cell Death and Developments in Targeting this Axis in Disease

Henning Walczak, University College London, Cancer Institute, UK

New Traits of TRAIL in Cancer

Marion MacFarlane, MRC Toxicology Unit, UK

Death Receptor Mechanisms: The ‘FLIP’ Side of the DISC

Guy S. Salvesen, Sanford-Burnham Medical Research Institute, USA

Proteolytic Crosstalk in Cell Death and Survival

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Yoshisasa Kaizuka, National Institute for Materials Science, Japan
Short Talk: Signal Protein Clusters in Plasma Membranes Involved in Death Signaling and Adaptive Immunity

Workshop 2: RIP3/Necroptosis (Q6)
*Kim Newton, Genentech, Inc., USA
RIPK1 both Positively and Negatively Regulates RIPK3 Oligomerization and Necroptosis.

Susana L. Orozco, University of Washington, USA
Exploring how Cells Commit to Apoptotic or Necrotic Cell-Death

Francis Ka-Ming Chan, University of Massachusetts Medical School, USA
Necrotic and Non-Necrotic Functions of RIP3 in Injury-Induced Inflammation

Mordechay Gerlic, Sackler Faculty of Medicine, Tel Aviv University, Israel
RIPK1 Regulates Cell Death Driven Systemic Inflammation

Edward S. Mocarski, Emory University, USA
Small Molecule RIP3-Kinase Inhibitor-Induced Apoptosis

Stem Cells and Development (Q5)
*Luca Scorrano, University of Padova, Italy
Mitochondrial Transfer from Bone-Marrow-Derived Stromal Cells to Pulmonary Alveoli Protects Against Acute Lung Injury

Carla Koehler, University of California, Los Angeles, USA
Exploring the Function of Lipid-Signaling Enzymes in Stem Cells

Mireille Khacho, University of Ottawa, Canada
Short Talk: Mitochondrial Dynamics in the Regulation of Stem Cell Maintenance and Fate Decisions

Alison M. Burkart, Joslin Diabetes Center, USA
Short Talk: Dissecting Relationships between Insulin Resistance and Mitochondrial Metabolism in Human iPS Cells

Konstanze F. Winklhofer, Ruhr University Bochum, Germany
Short Talk: Talk Title to be Announced

Michael A. Frohman, Stony Brook University, USA
Roles of the Lipid-Signaling Enzymes MitoPLD and Lipin 1 in Mitochondrial Dynamics, piRNA Biogenesis, and Spermatogenesis

Death Meets Survival (Q6)
*Douglas R. Green, St. Jude Children's Research Hospital, USA
Death Receptor Agonists for Cancer: Which Is the Right TRAIL?

Marion C. Bonnet, INSERM U976-Hopital St-Louis, France
Death and Survival of Keratinocytes

Kim Newton, Genentech, Inc., USA
Death by Kinases RIP1 and RIP3

Ben A. Croker, Boston Children's Hospital, USA
Short Talk: Fas Controls Neutrophil Lifespan during Viral Infection and Is Negatively Regulated by TLR and IL-18 Signaling

Post Session 3

SATURDAY, FEBRUARY 22

Environmental Control of Mitochondrial Physiology (Q5)
Andrew G. Dillin, University of California, Berkeley, USA
The Conserved Histone Lysine Demethylase PHF8 Regulates Mitochondrial ETC-Mediated Longevity

*Lluis Fajas, Université de Lausanne, Switzerland
Participation of CDK4 in the Regulation of Mitochondrial Metabolism and Energy Homeostasis

Erika L. Pearce, Max Planck Institute of Immunobiology and Epigenetics, Germany
Lipid Metabolism, Mitochondria, and Memory T Cell Generation

Christian Frezza, Hutchison/MRC Research Centre, UK
Altered Mitochondrial Metabolism in Cancer

Sameer Kulkarni, Nestlé Institute of Health Sciences SA, Switzerland
Short Talk: Impact of Liver-Specific Deletion of Mfn1 and Mfn2 in Metabolic Health

Leveraging Model Organisms (Q6)
*Marion MacFarlane, MRC Toxicology Unit, UK
Metabolic Health

Eli Arama, Weizmann Institute of Science, Israel
A Mitochondrial-Based Rate-Limiting Mechanism for Caspase Activation during Sperm Differentiation in Drosophila

Hyung Don Ryoo, New York University Langone Medical Center, USA
Regulating the Subcellular Distribution of a Pro-Apoptotic Protein, Hid

Kim McCall, Boston University, USA
Non-Apoptotic Cell Death in Drosophila Oogenesis

Eric H. Baehrecke, UMass Medical School, USA
Regulation and Function of Autophagy during Cell Death

Keren Yacobi Sharon, Weizmann Institute of Science, Israel
Short Talk: Germ Cell Death: A Physiological Alternative Cell Death Pathway in Drosophila

Barbara Conradt, Ludwig-Maximilians-Universitat, Germany
Short Talk: C. elegans CED-3 Caspase Regulates Centrosome Asymmetry in an Apoptotic Death

Workshop 2: Emerging Topics in Mitochondrial Dynamics and Physiology (Q5)
*Cole M. Haynes, University of Massachusetts Medical School, USA
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**Mitochondria in Tissue Homeostasis (Q5)**

*Mariusz Karbowski*, Amgen Inc, USA

*March5-Dependent Regulation of the OMM-Associated Degradation (OMMAD) Pathway and Mitochondrial Steps in Apoptosis*

*Adam L. Hughes*, University of Utah, USA

*An Autophagy-Dependent Pathway for Removal of Individual Proteins from Dysfunctional Mitochondria*

*Noriyuki Matsuda*, Tokyo Metropolitan Institute of Medical Science, Japan

*Identification of the Genuine Substrate of PINK1 that Activates Parkin*

*Christof Osman*, University of California, San Francisco, USA

*Live-Cell Microscopy of Mitochondrial DNA Suggests a Mechanism for its Inheritance and Distribution*

*A. Phillip West*, Yale University School of Medicine, USA

*Altered Mitochondrial DNA Dynamics Elicits a Cell-Intrinsic Antiviral Signaling Program*

*Atsushi Tanaka*, Yamagata University, Japan

*Mechanisms and Process of Mitochondrial Collapse in Autophagy-Deficient Mice*

*Brian Alexander Roelofs*, University of Maryland Baltimore, USA

*Npl4 Is Required for p97 to Perform Mitochondrial Quality Control Functions*

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**Systems Biology and Death Imaging (Q6)**

*Jared Rutter*, University of Utah, USA

*Eric A. Shoubridge*, McGill University, Canada

*Posttranscriptional Regulation of Mitochondrial Gene Expression*

*Rodrigue Rossignol*, University of Bordeaux, France

*Oncogenic RAS Inhibits the LKB1-AMPK Axis and Repatterns Energy Metabolism*

*Ralph J. DeBerardinis*, University of Texas Southwestern Medical Center, USA

*Mitochondrial Metabolism in Cancer*

*Dongryeol Ryu*, École Polytechnique Fédérale de Lausanne, Switzerland

*Short Talk: SIRT7 Regulates Mitochondrial Homeostasis via the Deacetylation and Activation of GABPbeta1*

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**SUNDAY, FEBRUARY 23**

**Departure**

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