

Oral Program

Sunday July 19, 2015

12:00-19:00 **Registration**

14:00-15:00 **Meet the Editors**

15:00-15:10 **Welcome and Introduction**

Room **Regency AB**

15:10-16:00 **Xiaodong Wang**, *National Institute of Biological Sciences, China*
[PLN01] Characterization of molecular mechanism of cytochrome c release from mitochondria during apoptosis

16:00-17:00 Session 1: Metabolism and Bioenergetics

Session Chair: Jared Rutter

16:00-16:30 **Nika Danial**, *Harvard Medical School, USA*
 Mitochondrial fuel substrate switching and the excitable brain **[INV01]**

16:30-17:00 **Toren Finkel**, *National Institutes of Health, USA*
 Mitochondria in metabolism and aging **[INV02]**

17:00-17:30 Refreshments | *Room: Regency CDE*

Room **Regency AB**

17:30-18:30 Session 1: Metabolism and Bioenergetics (Contd.)

Session Chair: Jared Rutter

17:30-17:45 **[O1.01] A nuclear role for the respiratory enzyme clk-1/coq7 in regulating ros and longevity**
 R.G. Barnes*, R.M. Monaghan, G.B. Poulin, A.J. Whitmarsh
University of Manchester, UK

17:45-18:00 **[O1.02] Mitochondrial alphabets and metabolic regulation**
 C.D. Lee*¹, J. Zeng¹, P. Cohen¹, T. Sallam², A. Martin-Montalvo³, J. Wan¹, S. Kim¹, H. Mehta¹, A.L. Hevener²,
 R. de Cabo³ et al
¹*University of Southern California, USA*, ²*University of California Los Angeles, USA*, ³*National Institute of Aging, USA*

18:00-18:30 **David Sabatini**, *Whitehead Institute, MIT, USA*
 Systematic approaches to study metabolism **[INV03]**

18:30-19:00 Poster Teasers | **Sponsored by Seahorse Bioscience**



18:30-18:35 **[PT01] Functional consequences of genetic conflict between mitochondrial and nuclear genomes**
 M.R. Patel*¹, G. Miriyala^{2,3}, A.R. Littleton², H.S. Malik^{2,3}
¹*Vanderbilt University, USA*, ²*Fred Hutchinson Cancer Research Center, USA*, ³*Howard Hughes Medical Institute, USA*

18:35-18:40 **[PT02] Loss of mitochondrial function impairs lysosomes**
 J. Demers-Lamarche¹, G. Guillebaud¹, N. Bélanger¹, M. Grondin¹, A.P. Nguyen², J. Michel¹, M. Germain*¹
¹*Université du Québec à Trois-Rivières, Canada*, ²*University of Ottawa, Canada*

18:40-18:45 **[PT03] Trans-mitochondrial coordination of cristae at regulated membrane junctions**
 M. Picard*¹, M.J. McManus¹, G. Csordas^{1,2}, P. Varnai^{1,3}, G.W. Dorn II^{1,5}, D. Williams^{1,4}, G. Hajnoczky^{1,2}, D.C. Wallace¹
¹*Children's Hospital of Philadelphia and University of Pennsylvania, USA*, ²*Thomas Jefferson University, USA*, ³*Semmelweis University, Hungary*, ⁴*University of Pennsylvania, USA*, ⁵*Washington University School of Medicine, USA*

18:45-18:50 **[PT04] Multimeric and dimeric PGAM5 complexes regulate mitophagy through phosphatase-independent and phosphatase-dependent mechanisms.**
 C.M. McConnell¹, J.M. Wilkins¹, C. Kramer², S.D. Roderick¹, P.A. Tipton¹, M. Hannink*¹
¹*University of Missouri, USA*, ²*Grinnell College, USA*

18:50-18:55 **[PT05] Outer mitochondrial membrane fusion controls parasite proliferation**
L.P. Pernas*^{1,2}, J.C.B. Boothroyd², L.S. Scorrano¹
¹University of Padua, Italy, ²Stanford University, USA

19:00-20:30 **Poster Session I & Drinks Reception** | Room: Regency CDE | Drinks
Reception Sponsored by Seahorse Bioscience



Monday July 20, 2015

Room Regency AB

09:00-10:15 Session 2: Mitochondria and Disease
Session Chair: Nika Danial

09:00-09:30 **Michael Murphy**, MRC Mitochondrial Biology Unit, UK

The sources and consequences of mitochondrial superoxide production [INV04]

09:30-10:00 **Ruth Lehmann**, NYU School of Medicine, USA

Mitochondrial germ line transmission and function [INV05]

10:00-10:15 **[O2.01] Mitochondrial complex III is required for regulatory T cell differentiation and function**

S.E. Weinberg*, L.A. Sena, M.M. Mehta, P.T. Schumacker, N.S. Chandel
Northwestern University Feinberg School of Medicine, USA

10:15-10:45 Refreshments | Room: Regency CDE

Room Regency AB

10:45-12:00 Session 2: Mitochondria and Disease (Contd.)
Session Chair: Nika Danial

10:45-11:15 **Jared Rutter**, University of Utah, USA

Functionalizing the Unannotated Mitochondrial Proteome [INV06]

11:15-11:45 **James Surmeier**, Northwestern University, USA

Selective neuronal vulnerability and mitochondrial oxidant stress in Parkinson's disease [INV07]

11:45-12:00 **[O2.02] Limited mitochondrial permeabilisation connects apoptotic signalling to non-lethal functions**

G. Ichim*¹, J. Lopez¹, S.W.G. Tait^{1,2}
¹Beaton Institute, UK, ²University of Glasgow, UK

12:00-12:15 Announcement of Family Support Awards

12:15-13:15 Lunch | Room: Regency CDE | Sponsored by Seahorse Bioscience



13:15-15:15 **Poster Session 2** | Room: Regency CDE

Room Regency AB

15:15-16:30 Session 3: Signaling and Mitochondria
Session Chair: Cole Haynes

15:15-15:45 **Helen McNeill**, Lunenfeld-Tanenbaum Research Institute, Canada

Fat cadherins in mitochondrial function [INV08]

15:45-16:15 **Siegfried Hekimi**, McGill University, Canada

Mitochondrial Electron Transport and the Generation and Function of Reactive Oxygen Species in Mice and Worms [INV09]

16:15-16:30 **[O3.01] Disruption of the mitochondrial phosphatase Ptc7 triggers an adaptive oxidative stress response**

N.M. Niemi*, X. Guo, J.J. Carson, A. Jochem, D.J. Pagliarini
University of Wisconsin, Madison, USA

16:30-17:00 Refreshments | Room: Regency CDE

Room Regency AB

17:00-18:15 Session 3: Signaling and Mitochondria (Contd.)
Session Chair: Cole Haynes

17:00-17:30 **Gerald Shadel**, Yale School of Medicine, USA

Mitochondrial Stress Signaling in Aging and Immunity [INV10]

17:30-18:00 **Reuben Shaw**, *Salk Institute for Biological Studies, USA*
AMPK: central integrator of metabolic adaptation and mitochondrial homeostasis [INV11]

18:00-18:15 **[O3.02] ROS signaling and metabolic stress response in angiogenesis: A tale outside the mitochondria**
E. Panieri¹, C. Millia², N. Fioriti², E. Jones³, M.M. Santoro^{*1,2}
¹University of Torino, Italy, ²VIB, Belgium, ³KUL, Belgium

19:00 **Meet the Speakers Dinner** | Nacional 27

Tuesday July 21, 2015

Room Regency AB

09:00-10:15 Session 4: Mitochondrial Dynamics
Session Chair: Kay Macleod

09:00-09:30 **Thomas Langer**, *University of Cologne, Germany*
Proteolytic control of mitochondrial homeostasis and membrane dynamics [INV12]

09:30-10:00 **Gyorgy Hajnoczky**, *Thomas Jefferson University, USA*
Interorganellar communication at the ER-mitochondrial interface [INV13]

10:00-10:15 **[O4.01] Mechanism removing dysfunctional mitochondria from axonal terminals**
M-Y. Lin, Z-H. Sheng*, B. Zhou
NINDS, NIH, USA

10:15-10:45 Refreshments | Room: Regency CDE

Room Regency AB

10:45-12:00 Session 4: Mitochondrial Dynamics (Contd.)
Session Chair: Kay Macleod

10:45-11:15 **Wade Harper**, *Harvard Medical School, USA*
Signalling to damaged mitochondria [INV14]

11:15-11:30 **[O4.02] A conserved sterol transport protein is a component of ER-mitochondria and ER-vacuoles contact sites in yeast**
A. Murley*¹, A. Toulmay², R.D. Sarsam¹, J. Yamada¹, W.A. Prinz², J. Nunnari¹
¹University of California, Davis, USA, ²National Institutes of Health, USA

11:30-11:45 **[O4.03] Mitofilin, is phosphorylated by PINK1 to form mitochondrial crista junctions, and mutated in familial Parkinson's disease patients**
P-I. Tsai*¹, C-H. Lin², C. Schoor³, C-H. Hsieh¹, R-M. Wu², D. Winter³, X. Wang¹
¹Stanford University School of Medicine, USA, ²National Taiwan University Hospital, Taiwan, ³University of Bonn, Germany

11:45-13:00 Lunch | Room: Regency CDE | Sponsored by Seahorse Bioscience

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Room Regency AB

13:00-14:45 Session 5: Mitophagy and Quality Control
Session Chair: Helen McNeill

13:00-13:30 **Kay Macleod**, *University of Chicago, USA*
BNIP3-dependent mitophagy in liver metabolism and nutrient responses [INV15]

13:30-14:00 **Richard Youle**, *National Institutes of Health, USA*
Synthetic phenotypes between Mitochondria Mutator animals and loss of function Parkin mutations [INV16]

14:00-14:15 **[O5.01] The two GTPase domains of the outer mitochondrial membrane protein Miro have distinct functions and novel active site conformations**
K.P. Smith*, J.L. Klosowiak, P.J. Focia, S. Park, D.M. Freymann, S.E. Rice
¹Northwestern University, USA

14:15-14:45 Refreshments | Room: Regency CDE

14:45-16:15 Session 5: Mitophagy and Quality Control (Contd.)

Session Chair: Helen McNeill

14:45-15:15 **Luca Scorrano, University of Padua, Italy**

Keeping mitochondria in shape: A matter of life and death **[INV17]**

15:15-15:45 **Cole Haynes, Memorial Sloan Kettering, USA**

Adaptations to mitochondrial dysfunction mediated by ATFS-1 and the UPRmt **[INV18]**

15:45-16:00 **[O5.02] Mitochondrial Regulation of Hematopoietic Stem Cell Aging and Rejuvenation**

D. Chen

UC Berkeley, USA

16:00-16:30 Closing Remarks

