

Jan Hoek, Thomas Jefferson University, Subgroup Co-Chair
György Hajnóczky, Thomas Jefferson University, Subgroup Co-Chair

Bioenergetics Subgroup 2013 Symposium
Saturday, February 2, 2013
Philadelphia, Pennsylvania

9:00 AM- 7:00 PM

Morning Symposium: Mitochondrial Calcium Signaling: New Insights after Molecular Identification of the Calcium Uniporter

With the cloning of the mitochondrial calcium uniporter in 2011 by the Mootha and Rizzuto groups, genetic approaches to manipulate the calcium uniport have become available and revealed intricate regulation of this channel. Meanwhile, the existence of other mitochondrial calcium transport mechanisms in a cell type-specific manner has gained research attention. The minisymposium will highlight the new molecular mechanisms and their physiological functions.

Organizers: Shey-Shing Sheu & György Hajnóczky

9:00 AM, Vasmi K Mootha, Harvard Medical School
The Mitochondrial Uniporter: From Molecular Identification to Physiology

9:30 AM, Rosario Rizzuto, University of Padova, Italy
Molecular Definition and Functional Role of the Mitochondrial Calcium Uniporter

10:00 AM, György Hajnóczky, Thomas Jefferson University
Molecular Mechanism of the Decoding Cytoplasmic Calcium Signals by Mitochondria

10:30 AM, Break

11:00 AM, Shey-Shing Sheu, Thomas Jefferson University
Multiple Mitochondrial Calcium Influx Mechanism: Physiological and Pathological Implication

11:30 AM, Brian O'Rourke, Johns Hopkins University
Beat-to-Beat Oscillations Versus Slow Integration of Sarcoplasmic Transients in Cardiac Muscle

11:45 AM, W. Jonathan Lederer, University of Maryland
Mitochondrial Calcium Dynamics

12:00 - 12:10 PM, Discussion

Afternoon Symposium: Mitophagy and Mitochondrial Dynamics

In eukaryotic cells, mitochondria exist in a state of continuous remodeling and renewal modulated by fission, fusion and mitophagy. This minisymposium will focus on recent advances concerning the cellular, molecular and biophysical mechanisms underlying mitophagy and mitochondria dynamics. The relation of these events to cell death and mitochondria-associated disease will also be highlighted.

Organizers: John J. Lemasters and Richard J. Youle

1:40 PM, Young Bioenergeticist Award

2:00 PM, Heidi M. McBride, McGill University, Montreal, Canada
Mitochondrial Dynamics and Quality Control

2:30 PM, Hiromi Sesaki, Johns Hopkins University
Mitochondrial Dynamics in Neurodegeneration

3:00 PM, Angelika Rambold, National Institutes of Health
Aging, Caloric Restriction and Mitochondrial Dynamics

3:30 PM, Break

4:00 PM, John J. Lemasters, Medical University of South Carolina
Initiators of Type 1 and 2 Mitophagy

4:30 PM, Richard J. Youle, National Institutes of Health
PINK1- and Parkin-mediated Mitophagy

5:20 PM, Subgroup Business Meeting

7:00 PM, Subgroup Dinner