

Symposium 2 – Mitochondria

Wednesday, June 8

14.00-18.00 Symposium N. 2 – Mitochondria in Health and Disease

Organized by Paulo J. Oliveira (Coimbra, Portugal), Mariusz Wieckowski (Warsaw, Poland) & Carlos Palmeira (Coimbra, Portugal)

Session 1 – Mitochondrial Physiology

Chairs: Paulo J. Oliveira (Coimbra, Portugal) & Mariusz Wieckowski (Warsaw, Poland)

- 14.00-14.30 **Keeping mitochondria in shape to keep in shape** 56ASM-0237
Luca Scorrano (Padova, Italy)
- 14.30-15.00 **Defining the molecular mechanisms of the mitochondrial permeability transition** 56ASM-0162
Paolo Bernardi (Padova, Italy)
- 15.00-15.30 **Mitochondria and lysosomes at the helm of cellular metabolism**
56ASM-0281
Nuno Raimundo (Coimbra, Portugal)
- 15.30-16.00 **The importance of interactions between the ER and mitochondria in determining cell fate** 56ASM-0238
Magdalena Lebedzińska-Arciszewska (Warsaw, Poland) 56ASM-0238
- 16.00-16.30 Coffee-break
- 16:30-17:00 **Assessing mitochondrial substrate utilization by ¹³C-enriched substrates and ¹³C NMR isotopomer analysis** 56ASM-0035
John Jones (Coimbra, Portugal)
- 17:00-17:30 **Bioenergetic cluster analysis – diagnostic evaluation of mitochondrial respiratory control in human fibroblasts** 56ASM-0224
Erich Gnaiger (Innsbruck, Austria)
- 17.30-18.00 **Assessment of mitochondrial fitness in human blood** 56ASM-0277
Hans Zischka (Munich, Germany)

Thursday, June 9

9.00-18.00 Symposium N. 2 – Mitochondria in Health and Disease

Session 2 – Mitochondria, metabolism and Cancer

Chairs: Werner Koopman (Nijmegen, Netherlands) and Hans Zischka (Munich, Germany)

9:00-9:30 **KRAS-regulated glutamine metabolism requires mitochondrial uncoupling protein 2-mediated aspartate transport to support pancreatic cancer growth** 56ASM-0063

Giuseppe Fiermonte (Bari, Italy)

9.30-10.00 **Is there a role of Interleukin-6 (IL-6) in Cancer Metabolism?** 56ASM-0202

Richard Porter (Dublin, Ireland)

10.00-10.30 **Mitochondrial Her2 promotes tumorigenicity by stimulating respiration**

Jakub Rohlena (Prague, Czech Republic) 56ASM-0233

10:30-11:00 Coffee-break

11:00-11:30 **Mitochondrial dysfunction and energy crisis in cancer cachexia**

56ASM-0178

Paola Costelli (Torino, Italy)

11.30-12:00 Short presentations from selected abstracts II (12+3 minutes)

Oxygen differentially affects gene expression, cell bioenergetics, and mitochondrial networks in distinct cancer cell lines 56ASM-0144

Ricardo Alva (St. Catharines, Canada)

The role of aspartate synthesis in tumor development 56ASM-0274

Mirko Milosevic (Vestec, Czech Republic)

12.00-14.00 Lunch

Session 3 – Mitochondria and human disease

Chairs: José Teixeira (Coimbra, Portugal) and Jakub Rohlena (Prague, Czech Republic)

14.00-14.30 **Metabolic Switch Utilizing Ammonia Supports Proliferation in Regenerating Liver** 56ASM-0289

Berwini B. Endaya (Prague, Czech Republic)

- 14.30-15.00 **Gut microbiome-midbrain mitochondria axis in gut-first PD** 56ASM-00244
Sandra Cardoso (Coimbra, Portugal)
- 15.00-15.30 **PNC2 (SLC25A36) deficiency associated with the hyperinsulinism/hyperammonemia syndrome** 56ASM-0255
Luigi Palmieri (Bari, Italy)
- 15.30-16.00 Short presentations from selected abstracts (12+3 minutes)
Defective mitophagic clearance of damaged mitochondria promotes extracellular vesicle-mediated release of mitochondrial components in Huntington's Disease 56ASM-0025
Carla Lopes (Coimbra, Portugal)
Mitochondria-associated membranes (MAMs) and sterile inflammation in Bipolar disorder 56ASM-0186
Anna Catarina Pereira (Coimbra, Portugal)
- 16.00-16.30 Coffee-break
- 16:30-17:00 **Measuring cell energy production to assess whole- and sub-cellular metabolism** 56ASM-0093
Enrico Tatti (Firenze, Italy)
- 17.00-18.00 Short presentations from selected abstracts (12+3 minutes)
Untangling the protective role of Zfra 1-31 peptide against type 2 diabetes-associated brain damage: preliminary results of a pilot study 56ASM-0083
Cristina Carvalho (Coimbra, Portugal)
A senotherapy for Hutchinson Gilford Progeria Syndrome (HGPS) 56ASM-0190
Simão Correia-Santos (Cantanhede, Portugal)
Metabolic fingerprint during early stages of osteoclastogenesis and the modulator role of estradiol: new insights in bone metabolism 56ASM-0198
Adriana Carvalho (Cantanhede, Portugal)
Detraining of the Heart: impact of exercise practice exclusively during gestational diabetes mellitus on maternal cardiac mitochondria 56ASM-0219
Carolina Tocantins (Coimbra, Portugal)

Friday,

June 10

9:00-12:00

Symposium N. 2 – Mitochondria in Health and Disease

Session 4 – Mitochondria Profiling and Therapies

Chairs: Carlos Palmeira (Coimbra, Portugal) and Magdalena Lebidzińska-Arciszewska (Warsaw, Poland)

9.00-9.30

Mitochondriotropic antioxidants based on hydroxycinnamic acids activates Nrf2-mediated cell signalling responses to oxidative stress: Implications in Non-Alcoholic Fatty Liver Disease (NAFLD) 56ASM-0232

José Teixeira (Coimbra, Portugal)

9.30-10:00

"MitoE10, MitoQ10 and decylTPP lower mitochondrial supercomplex levels and stimulate glycolysis in primary human skin fibroblasts" 56ASM-0177

Werner Koopman (Nijmegen, Netherlands)

10.00-10.30

Coffee-break

10:30-11.00

Targeting mitochondria in neurodevelopmental diseases. A focus on Down, RTT and Fragile X syndromes 56ASM-0140

Rosa Anna Vacca (Bari, Italy)

11.00-12:00

Short presentations from selected abstracts (12+3 minutes)

Targeting neuroinflammation and modulating iron dysregulation with innovative multitarget therapeutics for Amyotrophic Lateral Sclerosis 56ASM-0187

Pedro Soares (Porto, Portugal)

Impaired bioenergetic profile in neuron progenitor cells from iPSCs of patients affected by AGC1 deficiency 56ASM-0223

Simona Nicole Barile (Bari, Italy)

Mitochondrial Uncoupling Proteins (UCPs) are metabolic modulators in human Sertoli cells 56ASM-0043

David F. Carrageta (Porto, Portugal)

Quality control of mitochondrial respiration medium in high-resolution respirometry with living and permeabilized cells 56ASM-0240

Eleonora Baglivo (Innsbruck, Austria)