

## Mitochondria and Metabolism in Health and Disease 10<sup>th</sup> Annual MetNet International Meeting

Institut d'Estudis Catalans (IEC) Carrer del  
Carme, 47, 08001 Barcelona. Barcelona,  
October 24th-25th, 2024

### Thursday October 24<sup>th</sup>

8:15-9:00 **Registration**  
9:00-9:15 **Welcome**

#### **Session 1: Mitochondria and metabolism in immunology:** Chair Mariona Guitart

- 9:15 -9:45 **Albert Pol**, ICREA-IDIBAPS-UB, Barcelona, Spain.  
*Defensive-lipid droplets: Cellular organelles designed for antimicrobial immunity.*
- 9:45-10:15 **Stephanie Wculek**, IRB, BIST, Barcelona, Spain.  
*Metabolic Dependencies of Innate Immune Cells.*
- 10:15-10:30 **Joan Blanco Fernández**, University of Lausanne, Lausanne, Switzerland  
*A MRG-tag mouse reveals a role for mitochondrial genes in anti-inflammatory macrophage polarization.*

#### **Sponsor session: Methodologies to measure Mitochondrial function and Metabolism:** Chair Marc Liesa

- 10:30 - 10:55 **Miriam Contreras and Alfredo Caro-Maldonado**, Agilent Technologies, Spain.  
*Improvements in sensitivity and flexibility in measurements of mitochondrial function.*
- 10:55 -11:20 **Mike Lu**, Lucid Scientific, USA.  
*Resipher, a new non-invasive method to measure mitochondrial oxygen consumption.*
- 11:20 -12:15 **Coffee & refreshments**

#### **Session 2: Mitochondria and metabolism in ageing and age-related diseases:** Chair Josep Julve

- 12:15-12:45 **Laura Formentini**, CBM-CSIC-UAM, Madrid, Spain.  
*Substrate-dependent mitochondrial efficiency: a new metabolon.*
- 12:45-13:15 **Laurent Martinez**, IM2C-INSERM, Toulouse, France.  
*Energizing Aging Research: Mitochondrial Bioenergetics for Biomarker and Target Discovery in the Inspire-T cohort.*
- 13:15-13:30 **Josep Tarrago Celada**, Francis Crick Institute, London, UK.  
*The contribution of mitochondrial metabolism and antioxidant systems to breast cancer metastasis*
- 13:30-15:30 **Posters of Sessions 1 and 2 + Finger food lunch at Poster Hall**

#### **Session 3: Inherited mitochondrial and metabolic diseases:** Chair Mariona Guitart

- 15:30-16:00 **Albert Quintana**, UAB, Barcelona, Spain.  
*Parallel cell-type specific neurodegenerative pathways in mitochondrial disease.*
- 16:00-16:30 **Yolanda Cámara**, Vall D'Hebron Institut de Recerca, CIBERER, Barcelona, Spain.  
*In vivo role of accessory subunit NDUFA10 beyond stabilization of respiratory complex I.*
- 16:30-16:45 **Claudia Bigas**, IRB, Barcelona, Spain.  
*Unraveling the connection between maternal overnutrition and higher risk of liver disease in offspring*
- 16:45-18:45 **Poster of Sessions 3 and 4 + Refreshments at Poster Hall**

#### **Sponsors (19/08/24):**

Friday October 25<sup>th</sup>

**THE EMBO KEYNOTE LECTURE**

9:00-9:45 **José Antonio Enríquez**, CNIC, CIBERFES, Madrid, Spain.  
*Mitochondria in the aged liver.*

**Session 4: Mitochondria and metabolism in metabolic associated liver disease:** Chair Josep Julve

9:45-10:15 **Joan Clària**, Clínic-UB, CIBEREHD, Barcelona, Spain.  
*Mitochondrial Dysfunction in Chronic Liver Disease.*

10:15-10:45 **Giorgia Benegiamo**, Laboratory of Integrative Systems Physiology, EPFL, Switzerland.  
*The genetic background shapes the susceptibility to mitochondrial dysfunction and NASH progression.*

10:45-11:45 **Coffee & refreshments**

**Session 5: Celebrating Prof. Atan Gross with new mechanisms of mitochondria and metabolism regulation I:**

Chair Marc Liesa

11:45-12:15 **Orian S. Shirihai**, UCLA, Los Angeles, USA.  
*The Social life of mitochondria within the cell, exclusive clubs and dynamic networks.*

12:15-12:45 **Antonio Zorzano**, UB, IRB, CIBERDEM, Barcelona, Spain.  
*Mitochondrial dynamics and inflammation.*

12:45-13:15 **Luca Scorrano**, University of Padova, Padova, Italy.  
*Keeping mitochondria in shape, a matter of life and death.*

13:15-13:30 **Paula Sanchez Fernandez de Landa**, IRB, CIBERDEM, Barcelona, Spain.  
*Functional role of VPS13 proteins at mitochondria and ER contact sites*

13:30-15:30 **Posters of Sessions 4, 5 and 6 + Finger food lunch at Poster Hall**

**Session 6: Celebrating Prof. Atan Gross with new mechanisms of mitochondria and metabolism regulation II:**

Chair Marc Liesa

15:30-16:00 **Ana Victoria Lechuga Vieco**, IRB, BIST, Barcelona, Spain.  
*Mitochondrial heterogeneity: friend or foe?*

16:00-16:30 **Maria E. Solesio Torregrosa**, Rutgers University, New Jersey, USA.  
*Inorganic polyphosphate and mammalian metabolism.*

16:30-17:00 **Heidi McBride**, McGill University, Montreal, Quebec, CA.  
*Mitochondrial vesicles in immunology and evolution.*

17:00-17:15 **Alexey Amunts**, University of Münster, Münster, Germany. Westlake University, Hangzhou, China  
*Structure of II2-III2-IV2 mitochondrial supercomplex from a parasite reveals a protein inhibitor of complex III*

17:15-17:45 **Atan Gross**, Weizmann Institute, Rehovot, IL.  
*The metabolic side of apoptosis.*

17:45-18:00 **Concluding remarks**

**Organizing Committee:** Josep Julve, Institut de Recerca Sant Pau, Barcelona (Spain), CIBERDEM, [jjulve@santpau.cat](mailto:jjulve@santpau.cat)  
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