

2023-Jul-23 Sunday – Arrival

- 17:30 Welcome reception
19:00 Dinner
20:30 **Opening**

2023-Jul-24 Monday

- 08:30 **Erich Gnaiger (AT)** Structural bioenergetics – mitochondrial membrane potential and protonmotive force.
10:00 *Coffee / tea break*
10:30 **Leonid Sazanov (AT)** The molecular structure of respiratory supercomplexes and their bioenergetic function.
12:00 *Lunch / Walk & Talk*
15:30 **Karin Busch (DE)** Complex I and ATP synthase - Regulation of large OXPHOS complexes by small peptide subunits.
16:15 **Christopher Axelrod (US)** Fission, fusion, and mitochondrial function.
17:00 *Coffee / tea break*
17:30 Roundtable and discussion
19:00 Dinner
20:30 **Open session**

2023-Jul-25 Tuesday

- 08:30 **Anthony Moore (UK)** Mitochondrial respiratory control and Q redox states - which Q pools are detected?
09:15 **Erich Gnaiger (AT)** Additivity of flux in pathways converging at the Q junction: supercomplex channeling and excess capacity of downstream respiratory complexes.
10:00 *Coffee / tea break*
10:30 **Luiza Cardoso (AT)** Electron push and pull in respiratory control and Q redox state.
11:15 **Erika Fernandez-Vizarra (IT)** Q redox state, respiratory control, and mitochondrial disease.
12:00 *Lunch / Walk & Talk*
15:30 **Roundtable and discussion: Q**
17:00 *Coffee / tea break*
17:30 **Poster session**
PS-1 Luca Giordano (DE) Mitochondrial cytochrome c oxidase subunit 4 isoform 2 (Cox4i2) promotes the hypoxia-induced reduction of the electron transfer system and fosters superoxide production.
PS-2 Joanna Jasinska (PL) Modulation of mitochondrial large conductance potassium channels activity by infrared light.
PS-3 Murilo Othonicar (BR) Mitochondrial alternative enzymes and supercomplexes: functional and evolutionary insights.
PS-4 Patricia Owesny (DE) Impairment of cardiac function and mitochondrial energy metabolism through diet induced obesity in aging.
PS-5 Howard Phang (US) Screening marine natural products for bioenergetic effects in human cell models.
PS-6 Karolina Pytlak (PL) Mitochondrial alternative enzymes and supercomplexes: functional and evolutionary insights.
PS-7 Sara Stanic (CZ) Cold-induced non-shivering thermogenesis in skeletal muscle of obesity resistant mice.
PS-8 Sophie Strich (AT) Bioenergetic profiling of kinase inhibitors reveals drug off-target effects in colon cancer cell models.
19:00 Dinner
20:30 **Open session**

2023-Jul-26 Wednesday

- 08:30 **Luiza Cardoso (AT), Alba Timon-Gomez (AT)** Let's talk about protocols to measure mitochondrial respiratory function - an introduction to OXPHOS analysis.
10:00 *Coffee / tea break*
10:30 **Luiza Cardoso (AT)** A demo experiment on measurement of Q redox states simultaneously with high-resolution respirometry.
12:00 *Lunch / Walk & Talk*

Oral presentation from participants

- 15:30 **AS-1 Volker Ullrich (DE)** Cytochrome c as a cardiolipin dioxygenase.
15:45 **AS-2 Ranin Saleem (CA)** Mitochondrial physiology in cardiac muscle of deer mice native to high altitude.
16:00 **AS-3 Howard Phang (US)** Screening marine natural products for bioenergetic effects in human cell models.
16:15 **AS-4 Pushpalata Kayastha (PL)** Mitochondrial changes in eutardigrade *Paramecium* experimentalis to heat related stress.
16:30 **AS-5 Amit Kumar Nagwani (PL)** Mitochondria functionality in tardigrades under the hypomagnetic field.
17:00 *Coffee / tea break*
17:30 **Meet the expert**
19:00 Dinner
20:30 **Conclusions, awards and feedback followed by Raphael Raich and his accordion performing traditional Tyrolean songs at their best.**

2023-Jul-27 Thursday - Departure

- 09:00 *Departure/Relaxing day for participants of MiPconference 2023*