



**CA15203 Mitochondrial fitness mapping:
Conference, Working Groups and MC meeting - COST Action MITOEAGLE**

Date: 2017 March 21-23
Venue: Institut d'Estudis Catalans, Barcelona, ES

Programme

2017-03-21

DAY 1. Tuesday, 2017-03-21 – MITOEAGLE Conference

- 08:30 Registration and signature of attendance.
08:45 Pablo Garcia-Roves (ES) and Erich Gnaiger (AT) Welcome: Introduction of COST-MITOEAGLE and Barcelona meeting to all participants

A1 Connecting mitochondrial physiology – global perspectives and case studies
Chair: *Kathrin Renner-Sattler - Germany*

- 09:15 Erich Gnaiger (AT) Quality first: a paradigm shift in mt-respiratory control towards global connection.
09:45 Paul Coen (USA) To bring MITOEAGLE and MoTrPAC together.
10:15 *General discussion*
10:20 Werner Koopman (NL) Standardized quantification of mitochondrial morphology and function in living patient fibroblasts using microscopy.
10:40 Roberto Scatena, Patrizia Bottoni (IT) Mitochondria and cancer stem cells in hepatocarcinoma. An illustrative example of a tangled methodological approach.
10:55 Richard Porter (IR) phenformin's inhibition of complex 1 and ultimate death in glioblastoma cells and its circumvention by expression of humanized form of Ndi1

11:10 – 11:40 COFFEE BREAK

A2 Connecting data on cardiac and skeletal muscle mitochondria
Chair: *Terje Larsen - Norway*

- 11:40 Andrew Murray (UK) Metabolic adaptation to high altitude in Himalayan Sherpas.
12:10 Hervé Dubouchaud (FR) Effects of different fatty acids on skeletal muscle mitochondrial function.

- 12:25 Michal Nemeč (SK) Functional state of mitochondria in patients with preclinical and early stage neurodegenerative disease"
- 12:40 Arild Rustan (NO) Metabolic studies in human skeletal muscle cells.
- 12:55 Ellen Aasum (NO) Mitochondrial function in the diabetic heart – effect of an acute fat-load.
- 13:10 Marko Vendelin (EE) VDACS open in the heart mitochondria.
- 13:25 Rob Wüst (NL) Mitochondrial Complex I function in heart failure: different angles to analyze mitochondrial function.
- 13:40 *General discussion*

13:45 – 15:00 LUNCH

A3 Connecting data on adipocyte mitochondria

Chair: *Jan Nedergaard - Sweden*

- 15:00 Irina Shabalina (SE) Control of UCP1 activity in brown fat mitochondria.
- 15:30 Tobias Fromme (DE) Source depot and dietary status influence oxidative phosphorylation capacity in permeabilized mature adipocytes.
- 15:45 Manuela Sanchez-Feutrie (ES) RAP250 deficiency protects from obesity, and enhances mitochondrial metabolism in adipose depots.
- 16:00 Marc Claret (ES) Mitochondrial performance and central regulation of energy balance.
- 16:15 Lisa Chakrabarti (UK) Mitochondrial lipid and proteomics comparative studies in mammalian ageing.

16:30 – 17:00 COFFEE BREAK

A4 Connecting data on cultured cells and blood cells

Chair: *Magdalena Labieniec-Watala - Poland*

- 17:00 Nicoleta Moisoi (UK) Models of Parkinson's with focus on cell lines.
- 17:30 Claus Desler (DK) Mitochondrial mediated genomic instability in aging with focus on cell lines.
- 17:15 Elisa Calabria (IT) Age and frailty related changes in PBMCs mitochondrial function and whole body physiology.
- 18:00 Maria Monsalve (ES) Mitochondrial biogenesis in PMBC: potential biomarkers.
- 18:15 Slawomir Michalak (PL) Mitochondrial respiration in intact peripheral blood mononuclear cells in patients with extrapyramidal syndromes.
- 18:30 Clair Hartmann (DE) Mitochondrial respiration of peripheral blood mononuclear cells in an experimental porcine brain injury model.
- 18:45 Karolina Siewiera (PL) The effect of metformin on blood platelet bioenergetics and platelet function.

DAY 2. Wednesday, 2017-03-22 – Working Groups (WG)

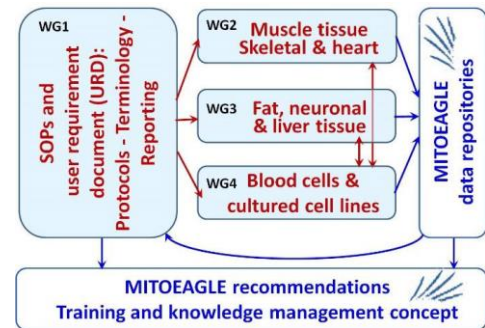
B1

Joint WGs meeting

Chair: Elisa Calabria – Italy

- 09:00 WG1 presentation of tasks and current status.
- 09:30 WG2 presentation of tasks and current status.
- 10:00 WG3 presentation of tasks and current status.
- 10:30 WG4 presentation of tasks and current status.

11:00-11:30. Coffee break



B2

Specific WG presentations

Chair: Pablo Garcia-Roves – Spain

- 11:30 Erich Gnaiger (AT) Current proposal about 'New terminology' on SUIT protocols and coupling/pathway control states (WG1).
- 11:45 Marina Makrecka-Kuka (LT) Fatty acid oxidation evaluation in mitochondria (WG1).
- 12:00 Paul Coen (USA) and Pablo Garcia-Roves (ES) Technical perspective of high-resolution respirometry in permeabilized skinned muscle fibers: humans and animal models (WG2)
- 12:30 Odeta Arandarcikaite (LT) Age-related responses of brain mitochondria to ischemic insult (WG3).
- 12:45 Ondrej Sobotka (CZ) The effect of 24 weeks of high-fat and high-cholesterol diet on rat liver mitochondria (WG3).
- 13:00 Mario Ost (DE) Multivariate biomarkers of age-dependent sarcopenia: A blood based bioenergetics & cytokine profiling approach (WG4).
- 13:15 Natasha Kopitar-Jerala (SI) Mitochondrial ROS and inflammation (WG4).

13:30 – 15:00 LUNCH

B3

Specific WG meetings

14:30-17:00

- WG1 - Room TBA
- WG2 - Room TBA
- WG3 - Room TBA
- WG4 – Room TBA

17:00 - 17:30 Coffee break

B4

Joint WG meeting - conclusions and future WG actions.

- 17:30 WG1:
Towards a preprint publication on terminology in mitochondrial respiratory physiology.
- 17:50 WG2:
Fatty acid oxidation evaluation in mitochondria
- 18:10 WG3:
- 18:40 WG4:

DAY 3. Thursday, 2017-03-23 - Management Committee (MC)

C1 MC meeting

09:00 Management Committee Meeting

11:00-11:30 COFFEE BREAK

13:00 End

