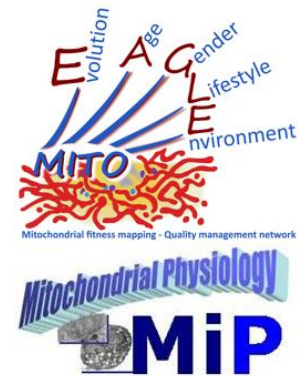


# 12<sup>th</sup> MiP/MitoEAGLE Training School

Coimbra, PT. 2019 Jul 08-11

*Mitochondrial respiratory physiology:  
Challenges on data sharing, reproducibility,  
and interpretation.*



## Monday, July 08 – Morning

<b>A1</b>	<b>OXPHOS protocols: coupling and pathway control</b> Chairs: Palmeira Carlos and Porter Richard
<b>08:30-10:00</b>	<b>Gnaiger Erich</b> Elemental steps towards understanding mitochondrial core energy metabolism: coupling control
<b>10:00-10:30</b>	<i>Coffee/tea break</i>
<b>10:30-12:00</b>	<b>Gnaiger Erich</b> Elemental steps towards understanding mitochondrial core energy metabolism: pathway control and the Q-junction
<b>12:00-15:00</b>	<i>Lunch</i> <i>Walk&amp;Talks, Run&amp;Fun, Person-to-person poster talks</i>

## Monday, July 08 – Afternoon

<b>B1</b>	<b>Abstracts</b> Chairs: Hachmo Yafit/Vella Joanna
<b>15:00-15:15</b>	<b>Pinho Sónia</b> Metabolic remodelling and susceptibility to stress after forcing OXPHOS in human skin fibroblasts
<b>15:15-15:30</b>	<b>Bravo-Sagua Roberto</b> Caveolin-1 antagonizes PKA in the remodelling of metabolism modulated by ER-mitochondria communication during early ER stress
<b>15:30-15:45</b>	<b>Machado Ivo</b> Interplay between metformin and miR-378a-3p in cells under hyperglycaemia
<b>15:45-16:00</b>	<b>Beleza Jorge</b> Gestational exercise counteracts the deleterious consequences imposed by diabetes mellitus developed during pregnancy on 16 weeks old male offspring liver mitochondrial function
<b>16:00-16:30</b>	<i>Coffee/tea break</i>

<b>16:30-18:00</b>	<i>Guided tour to the University Old Campus</i>
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## Tuesday, July 09 – Morning

<b>A2</b>	<b>Mitochondrial preparations and living cells</b> Chairs: Chabi Beatrice/Abdel-Rahman Engy
08:30-09:15	<b>Doerrier Carolina</b> Mitochondrial preparations and living cells (video)
09:15-10:00	<b>Calabria Elisa</b> Investigating mitochondrial function in blood cells by high-resolution respirometry: contribution to an interlaboratory study. Mitoeagle WG4
10:00-10:30	<i>Coffee/tea break</i>
10:30-11:00	<b>Garcia-Roves Pablo</b> Generating reference values on mitochondrial respiration in permeabilized muscle fibers
11:00-11:30	<b>Doerrier Carolina</b> Inter-laboratory harmonization of respiratory protocols in permeabilized human muscle fibers
11:30-12:00	<b>Wüst Rob</b> Altered mitochondrial metabolism in the diabetic heart
12:00-15:00	<i>Lunch</i> <i>Walk&amp;Talks, Run&amp;Fun, Person-to-person poster talks</i>

## Tuesday, July 09 – Afternoon

<b>B2</b>	<b>Abstracts</b> Chairs: Coxito Pedro/ Vujacic-Mirski Ksenija
15:00-15:15	<b>Zujovic Tijana</b> Palmitate treated human hepatocellular carcinoma HuH7 cells require higher digitonin concentration for plasma membrane permeabilization
15:15-15:30	<b>Fuertes Agudo Marina</b> Role of COX-2 in liver and heart mitochondrial function
15:30-15:45	<b>Santos Diana</b> Uncoupling protein 1 inhibition and mitochondrial respiration in epicardial adipose tissue from heart failure patients
15:45-16:00	<b>Holzner Lorenz</b> Evidence of altered mitochondrial function in glycolytic, but not oxidative skeletal muscle in mice after one month of high fat, high sucrose feeding
16:00-16:30	<i>Coffee/tea break</i>

<b>C1</b>	<b>Meet the expert (Garcia-Roves Pablo, Doerrier Carolina, Gnaiger Erich, Palmeira Carlos, Chabi Beatrice, Calabria Elisa, Ali Sameh, Jones John, Oliveira Paulo, Porter Richard, Wüst Rob, Iyer Shilpa, Ledo Ana, Henrique Alexandrino, Sardao Vilma, Oliveira Jorge, Rodrigues Ana Sofia)</b>
16:30-18:30	<b>Meet the expert - Discussions on a large variety of topics</b>

Early Career Investigator (ECI) participants can select groups with one targeted experienced scientist. Person-to-person discussion: visions, reality, achievements, pitfalls, problems, questions - your research projects are center-stage

**20:00** *Official Dinner at the LOGGIA Restaurant*

## Wednesday, July 10 – Morning

<b>A3</b>	<b>Mitochondria Physiology and Disease</b> Chairs: Palmeira Carlos/Rolo Anabela
<b>08:30-08:50</b>	<b>Henrique Alexandrino</b> Energy for liver regeneration: Mitochondria in Liver Surgery
<b>08:50-09:10</b>	<b>Ali Sameh</b> Metabolic blackout in hepatocellular carcinoma cells by submicromolar iodoacetate-loaded galactosylated nanoparticles
<b>09:10-09:30</b>	<b>Ledo Ana</b> Understanding how the brain uses oxygen – studies in animal models
<b>09:30-10:00</b>	<b>Porter Richie</b> The Biochemical and Bioenergetic Consequences of the Myostatin SNP g.66493737C>T and SINE insertion 227 bp polymorphism in Skeletal Muscle of Thoroughbred Horses
<b>10:00-10:30</b>	<i>Coffee/tea break</i>
<b>10:30-10:55</b>	<b>Sardao Vilma</b> Role of mitochondria in bone homeostasis
<b>10:55-11:20</b>	<b>Oliveira Jorge</b> Mitochondrial Physiology and dynamics in the context of Parkinson's disease
<b>11:20-11:45</b>	<b>Rodrigues Ana Sofia</b> Mitochondrial modulation as a pluripotency gatekeeper
<b>11:45-12:05</b>	<b>Iyer Shilpa</b> Characterizing metabolic and structural changes in Leigh's Syndrome patient fibroblasts
<b>12:05-12:30</b>	<b>Palmeira Carlos</b> Metabolic diseases and mitochondrial remodelling
<b>12:30-15:00</b>	<i>Lunch</i> <i>Walk&amp;Talks, Run&amp;Fun, Person-to-person poster talks</i>

## Wednesday, July 10 – Afternoon

<b>A4</b>	<b>Data analysis and interpretation</b> Chairs: Iyer Shilpa/Celen Murat Cenk
<b>15:00-16:30</b>	<b>Erich Gnaiger</b> Normalization: per sample, per system, per mitochondrial marker Normalization: flux control, ratios
<b>16:30-17:00</b>	<i>Coffee/tea break</i>

<b>B3 Abstracts</b>	
Chairs: Gao Yun/Hatoková Zuzana	
<b>17:00-17:15</b>	<b>Silva Filomena</b> Off-target effects of etomoxir on mitochondrial complex I
<b>17:15-17:30</b>	<b>Guerra Minuzzi Luciele</b> A pilot study on mitochondrial function of mouse skin using high-resolution respirometry
<b>17:30-17:45</b>	<b>To be defined</b>
<b>17:45-18:00</b>	<b>Jusic Amela</b> Noncoding RNAs regulatory network in mitochondria
<b>18:00-18:15</b>	<b>Di Marcello Marco</b> Partitioning between cytochrome c oxidase and alternative oxidase studied by oxygen kinetics of dark respiration in <i>Chlamydomonas reinhardtii</i> : a microalgae model organism
<b>18:15-18:30</b>	<b>Evinová Andrea</b> High-resolution respirometry of neuroblastoma SK-N-SH and SH-SY 5Y cell lines
<b>18:30-18:45</b>	<b>Dias Candida</b> Protective effect of nitrite in brain ischemia/reperfusion via modulation of mitochondrial respiration
<b>18:45-19:00</b>	<b>Crispim Marcell</b> Effects of atovaquone and 4-nitrobenzoate on Plasmodium falciparum respiration
<b>19:00</b>	<i>Dinner</i>

## Thursday, July 11 – Morning

<b>D1 Workshop on respiratory states in living cells and respiratory control ratios: MitoEAGLE position papers parts 2 and 3</b>	
<b>08:30-09:00</b>	Introduction
<b>09:00-10:00</b>	Working Groups
<b>10:00-10:30</b>	<i>Coffee / tea break</i>
<b>10:30-11:30</b>	Presentations of Working Groups and discussion
<b>11:30-12:00</b>	Training School feedback and conclusions
<b>12:00</b>	<i>Departure</i>