



Insieme per lo studio e la cura
delle malattie mitocondriali ODV



MITOCHONDRIAL BIOMEDICINE

WINTER SCHOOL

From **28**
JANUARY
2024

to **2**
FEBRUARY
2024

Hotel Grüner Baum
BRESSANONE - BRIXEN BZ

RATIONALE

First European Winter School in Mitochondrial Biomedicine: a unique training opportunity for PhD students, medical residents, and postdoctoral researchers with a keen interest in mitochondrial biology and medicine.

The project aims to encourage the training of doctoral students, residents and post-doctoral researchers interested in the topics of mitochondrial biology and medicine by bringing together international experts in the biology, genetics, pathophysiology of mitochondria and in the clinic of mitochondrial diseases. The participation of the Mitocon, the Italian association of mitochondrial patients will add the patients' perspective to the school.

The school will be held in person from January 28th to February 2nd 2024 at the Grüner Baum Hotel in Bressanone, Italy and will be open to 40 attendees from across Europe. Mitochondria are organelles often referred to as the energy plants of the cell as they are mainly responsible for converting energy derived from food into ATP, the high-energy molecule used by the biochemical systems of cells. The series of reactions that lead to the synthesis of ATP forms the mitochondrial respiratory chain consisting of respiratory complexes I-IV and ATP synthase. A unique feature of mitochondria is that they have their own genetic material (mitochondrial DNA) that contains some essential genes of the respiratory complexes, although most of the genes that code for proteins found in mitochondria are found in nuclear DNA. The malfunction in the processes that lead to the synthesis of ATP due to mutations in the mitochondrial or nuclear DNA can give rise to mitochondrial diseases, rare genetic pathologies, characterized by extreme heterogeneity and clinical, biochemical and genetic complexity. The role of mitochondria, however, is not limited to the synthesis of ATP, but includes a large number of essential metabolic pathways (e.g. the Krebs cycle, beta oxidation etc.), the regulation of cellular calcium levels, the synthesis of nucleotides etc...

The European Winter School in Mitochondrial Biomedicine responds to a need felt at an international level to improve the interaction between basic researchers and clinicians engaged in the study of mitochondrial biology and mitochondrial diseases. The cross-contamination that the course aims to promote will train the next generation of researchers attentive to the problems of mitochondrial diseases and will increase clinicians' awareness of the potential and problems of basic research. Overall, the School will strengthen the role and visibility of UNIPD in the field of mitochondrial biomedicine.

The school will include the holding of seminar lessons and small thematic workshops ensuring close interaction between attendees and faculties. All the topics will be treated both from a clinical point of view and from that of basic biological mechanisms with the contribution of national and international experts.

FACULTY

ORGANIZERS:

Carlo Viscomi,
University of Padova, Italy

Erika Fernandez-Vizarra,
University of Padova, Italy

Luca Scorrano,
University of Padova, Italy

Maria Andrea Desbats,
University of Padova, Italy

Sukru Anil Dogan,
Bosphorus University, Turkey

CONFIRMED SPEAKERS:

Anna Wredenberg,
Karolinska Institute, Sweden

Aurora Gomez-Duran,
Centro de Investigaciones Biológicas Margarita Salas (CIB-CSIC), Spain

Caterina Agosto,
University of Padova, Italy

Costanza Lamperti,
Neurological Institute "C. Besta", Milan, Italy

Daria Diodato,
Bambin Gesù Hospital, Italy

Holger Prokisch,
Helmholtz Zentrum, Munich, Germany

Leonardo Salviati,
University of Padova, Italy

Marie Eugenia Soriano,
Univeristy of Padova

Maria Falkenberg,
University of Gothenburg, Sweden

Michal Minczuk,
University of Cambridge, UK

Patrick Yu Wai Man,
University of Cambridge, UK

Rita Horvath,
University of Cambridge, UK

Robert MacFarland,
University of Newcastle, UK

Robert Pitceathly,
UCL, UK

Serena Massucci,
Mitocon, Italy

Sunday 28 January 2024

- 18:00 Welcome from organizers
- 18:15 - 18:45 **Keynote lecture: Bobby McFarland**
(mitochondrial disease)

Monday 29 January 2024

- 9:30 - 10:00 **Luca Scorrano** (ADOA/Opa)
- 10:00 - 10:30 **Patrick Yu Wai Man** (LHON)
- Break*
- 11:30 - 12:00 **Aurora Gomez-Duran** (mtDNA haplotypes)
- 12:00 - 12:30 **Costanza Lamperti** (malattie adulto)
Free time until 5:00 pm
- 17:00 - 19:00 Discussion with students

Tuesday 30 January 2024

- 9:30 - 10:00 **Anna Wredenberg** (fly)
- 10:00 - 10:30 **Rita Horvath** (fish)
- Break*
- 11:00 - 11:30 **Anil Dogan** (mice)
- 11:30 - 12:00 **Maria Andrea Desbats** (lievito e elegans)
Free time until 5 pm
- 17:00 - 19:00 Discussion with students

Wednesday 31 January 2024

- 9:30 - 10:00 **Rob Pitceathly** (diagnostics)
- 10:00 - 10:30 **Holger Prokisch** (omic approaches)
- Break*
- 11:00 - 11:30 **Mageni Soriano**
- 11:30 - 12:00 **Michal Minczuk** (editing)
- 17:00 - 19:00 Discussion with students

Thursday 1 February 2024

- 9:30 - 10:00 **Costanza Lamperti / Rob Pitceathly**
(trial clinici)
- 10:00 - 10:30 **Daria Diodato** (pediatric diseases)
- Break*
- 10:30 - 11:00 **Mitocon**
- 11:00 - 11:30 **Caterina Agosto**
Free time until 5:00 pm
- 17:00 - 19:00 Discussion with students
- 19:00 - 19:10 **Carlo Viscomi** (conclusion remarks)

Friday 2 February 2024

Departures

GENERAL INFORMATION

VENUE

Grüner Baum Hotel
Via Stufles, 11,
39042 Brixen – Bressanone (BZ)
Italy

REGISTRATION COSTS

| REGISTRATIONS: | until 10/12/23 | After 11/12/23 |
|--|-------------------|---------------------|
| E-mit members, single bedroom | 800,00€ + 22% VAT | 950,00€ + 22% VAT |
| E-mit members, shared double bedroom | 700,00€ + 22% VAT | 850,00€ + 22% VAT |
| Non E-mit members, single bedroom | 950,00€ + 22% VAT | 1.150,00€ + 22% VAT |
| Non E-mit members, shared double bedroom | 850,00€ + 22% VAT | 1.000,00€ + 22% VAT |

ORGANIZING SECRETARIAT



Via Vittoria Colonna, 40 - 20149 Milano
Ph. +39 02 30066329

Viale Italia 173, 57127 Livorno
Ph. +39 0586 849811 - Fax: +39 0586 349920