



 **Mitocon**

Insieme per lo studio e la cura  
delle malattie mitocondriali

# 10th Italian Meeting on Mitochondrial Diseases

October 9 - 10, 2020

Virtual edition

Organised by Mitocon - Insieme per lo studio e la cura delle malattie mitocondriali Onlus

WITH THE SUPPORT OF:

FONDAZIONE



AND WITH THE SUPPORT OF THE ITALIAN NATIONAL HEALTH INSTITUTE

# Scientific programme committee

**Enrico Bertini**, Neuromuscular and Neurodegenerative Disorders,  
Bambino Gesù Children's Research Hospital, Rome

**Valerio Carelli**, IRCCS Institute of Neurological Sciences (ISBN), Bellaria  
Hospital, Bologna/University of Bologna

**Massimiliano Filosto**, NeMO Clinical Center-Brescia for Neuromuscular  
Diseases; Department of Clinical and Experimental Sciences, University  
of Brescia

**Costanza Lamperti**, Division of Medical Genetics and Neurogenetics,  
Mariani Foundation Center for the Study of Mitochondrial Pediatric  
Diseases, Foundation IRCCS Neurological Institute "C. Besta", Milan

**Michelangelo Mancuso**, AOUP, Neurological Institute, University of Pisa

**Olimpia Musumeci**, AOU Policlinico "G.Martino", University of Messina

**Serenella Servidei**, Neurology Institute, Catholic University of the  
Sacred Heart, Rome

**Valeria Tiranti**, Division of Medical Genetics and Neurogenetics, Mariani  
Foundation Center for the Study of Mitochondrial Pediatric Diseases,  
Foundation IRCCS Neurological Institute "C. Besta", Milan

**Massimo Zeviani**, Department of Neurosciences, University of Padua

# FRIDAY OCTOBER 9

## 9:30 am- 10:00 am (CEST TIME)

Opening: P. Santantonio, President Mitocon Onlus  
Video: patients' experiences

## Session 1:

Accelerating high tech  
involvement in daily  
practice

### Chairmen:

O. Musumeci, AOU  
Policlinico "G. Martino",  
University of Messina

M. Filosto, NeMO Clinical  
Center-Brescia for  
Neuromuscular Diseases;  
Department of Clinical and  
Experimental Sciences,  
University of Brescia

## 10:00 am - 10:30 am

Artificial intelligence in the diagnosis of mitochondrial  
disease, H. Prokisch, Technical University Munich

## 10:30 am - 11:00 am

Telemedicine during Covid-19, C. Lamperti, Division  
of Medical Genetics and Neurogenetics, Mariani  
Foundation Center for the Study of Mitochondrial  
Pediatric Diseases, Foundation IRCCS Neurological  
Institute "C. Besta", Milan

## 11:00 am - 11:30 am

Epigenetics of pregnancy: when DNA is not the boss,  
D. Zuccarello, Department of Lab Medicine, Unit of  
Clinical Genetics and Epidemiology, University  
Hospital of Padua

## 11:30 am - 12:00 am

Overview of biological biomarkers. A. Suomalainen,  
Department of Neurosciences, University of Helsinki

## 12:00 pm - 12:30 pm

Questions & answers



## Session 2:

Current trials and industry – flash presentation part I

### Chairmen:

V. Carelli, IRCCS Institute of Sciences, Neurological (ISBN), Bellaria Hospital, Bologna/University of Bologna

E. S. Bertini, Neuromuscular and Neurodegenerative Disorders, Bambino Gesù Childrens Research Hospital, Rome

### 12:30 pm - 12:50 pm

PTC743 Mitochondrial Epilepsy Trial Update, M. Klein, Global Head Gene and Mitochondrial Therapies, PTC Therapeutics.

### 12:50 pm - 1:10 pm

Abliva's innovative drug development programs for primary mitochondrial diseases – status update and goals. M. Hansson, Chief Medical Officer, Vice President Preclinical & Clinical Development, Abliva

### 1:10 pm - 1:30 pm

MAT: Minovia's journey with a Personalized Therapy- A. Gill, Head of Medical EU, Minovia.

### 1:30 pm - 2.30 pm

Break

## Session 2:

Current trials and industry – flash presentation part II

### Chairmen:

V. Carelli, IRCCS Institute of Sciences, Neurological (ISBN), Bellaria Hospital, Bologna/University of Bologna

E. S. Bertini, Neuromuscular and Neurodegenerative Disorders, Bambino Gesù Childrens Research Hospital, Rome

**2:30 pm - 2:50 pm**

Lumevoq Gene Therapy in Leber Hereditary Optic Neuropathy (LHON), M. Taiel, MD Chief Medical Officer, GenSight Biologics

**2:50 pm - 3:10 pm**

Highlights on the state of the art of Idebenone therapy in LHON, X. Llòria, Global Program Leader Raxone, Santhera Pharmaceuticals

**3:10 pm - 3:30 pm**

Overview of REN001 Clinical Development Program, A. Dorenbaum, Chief Medical Officer, Reneo Pharmaceuticals.

**3:30 pm - 3:50 pm**

Khondrion's Sonlicromanol: progress update, J. Smeitink, CEO Khondrion

**3:50 pm - 4:10 pm**

Questions & answers

**4:10 pm - 4:20 pm**

Break

**4:20 pm - 4:25 pm**

Special greetings from Salvatore Di Mauro

**4:25 pm - 5:00 pm**

Special lecture: the mitochondrial journey. Celebrating the 80th years of Billi Di Mauro. M. Zeviani, Department of Neurosciences, University of Padua



## **Session 3:**

### **Gene therapy and editing**

#### **5:00 pm - 5:30 pm**

Changing mtDNA heteroplasmy with DNA editing enzymes, C. T. Moraes, University of Miami Miller School of Medicine.

#### **Chairmen:**

M. Zeviani, Department of Neurosciences, University of Padua

#### **5:30 pm - 6:00 pm**

Experimental models for mtDNA maintenance defects. C. Viscomi, Department of Biomedical Sciences, University of Padua

C. Lamperti, Division of Medical Genetics and Neurogenetics, Mariani Foundation Center for the Study of Mitochondrial Pediatric Diseases, Foundation IRCCS Neurological Institute "C. Besta", Milan

#### **6:00 pm - 6:30 pm**

Treatment of mitochondrial diseases with AAV: the proposal of gene therapy for MNGIE, R. Martí, Research group on neuromuscular and mitochondrial diseases, Vall d'Hebron Research Institute (VHIR), Barcelona

#### **6:30 pm - 7:00 pm**

A bacterial cytidine deaminase toxin enables CRISPR-free mitochondrial base editing, B. Y. Mok, Department of Chemistry and Chemical Biology, Harvard University, Cambridge MA

#### **7:00 pm - 7:30 pm**

Questions & answers

#### **7:30 pm**

Closing: P. Santantonio, President Mitocon Onlus

# SATURDAY OCTOBER 10

## 9:00 am - 9:15 am (CEST TIME)

Opening: P. Santantonio, President Mitocon Onlus  
Video: patients' experiences

## Session 4:

Mitochondrial disease,  
natural history and  
cohorts

## Chairmen:

E. S. Bertini, Neuromuscular  
and Neurodegenerative  
Disorders, Bambino Gesù  
Childrens Research Hospital,  
Rome

S. Servidei, Neurology  
Institute, Catholic University  
of the Sacred Heart, Rome

## 9:15 am - 9:45 am

Outcome measures in primary mitochondrial  
myopathies. M. Mancuso, AOUP, Neurological  
Institute, University of Pisa

## 9:45 am - 10:15 am

LHON - role model for mitochondrial therapies,  
T. Klopstock, Department of Neurology,  
University of Munich

## 10:15 am - 10:45 am

Clinical course of MELAS. Can we predict it?,  
R. McFarland, Wellcome Trust Centre for  
Mitochondrial Research

## 10:45 am - 11:15 am

Questions & answers

## 11:15 am - 11:30 am

Break



## **Session 5:**

# Pathophysiology and models of mitochondrial dysfunction

### **Chairmen:**

V. Tiranti, Division of Medical Genetics and Neurogenetics, Mariani Foundation Center for the Study of Mitochondrial Pediatric Diseases, Foundation IRCCS Neurological Institute "C. Besta", Milan

M. Mancuso, AOUP, Neurological Institute, University of Pisa

**11:30 am - 12:00 am**

Inflammation and mitochondrial diseases. D. Martinelli, Genetics and Rare Diseases Research Division, Unit of Metabolism, Bambino Gesù Children's Research Hospital, Rome

**12:00 pm - 12:30 pm**

iPS models for OPA1 and POLG associated with parkinsonism. V. Broccoli, CNR - National Research Council, Institute of Neuroscience, Milan

**12:30 pm - 1:00 pm**

Inhibition of autophagy corrects the visual defects in a model of ADOA, L. Scorrano, Department of Biology & VIMM, University of Padua

**1:00 pm - 1:30 pm**

Questions & answers

**1:30 pm**

Closing: P. Santantonio, President Mitocon Onlus





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