Mitochondrial Disease Conference
pre-meeting international symposium

Artificial Intelligence in Mitochondrial Medicine: emerging tools for diagnosis and monitoring

Chair and organiser:
Michelangelo **Mancuso,** Pisa

Local co-organisers:
Andrea **Bandini**, Pisa
Piervito **Lopriore**, Pisa
Silvestro **Micera**, Pisa
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mito conference
15TH MITOCHONDRIAL DISEASE CONFERENCE
PISA 2026
ITALY

Registration fee:
Free registration for residents, postdoc, PhD students and participants to the MITOCON conference

until novembre 15th
EARLY REGISTRATION: 80 € + IVA 22%
EARLY REGISTRATION E-MIT members: 50 € + IVA 22%

after november 15th
LATE REGISTRATION: 150 € + IVA 22%

For registration and further information, please write to:
info@fclassevents.com

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Organizing Secretariat

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Artificial Intelligence in Mitochondrial Medicine: emerging tools for diagnosis and monitoring

Hotel Galilei, Pisa, Italy
January 23rd, 2026, 9 AM

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Artificial Intelligence in Mitochondrial Medicine: emerging tools for diagnosis and monitoring

The integration of artificial intelligence into mitochondrial medicine is opening new avenues for early diagnosis, clinical monitoring, and personalized therapies.

This meeting brings together international experts to explore the potential of digital platforms and predictive models, spanning from clinical and genetic data analysis to the use of biomarkers and wearable devices. Pioneering projects will be presented that aim to transform the management of mitochondrial diseases, overcoming current diagnostic challenges through advanced AI-driven tools.

The event will provide a multidisciplinary perspective and foster constructive dialogue on the future of translational research and the impact of emerging technologies on the care of these rare and complex disorders.

PROGRAMME

09.00 **Greetings**

09.15 - 10.15 **Session I: AI in Health: from the general opportunity to the application to mitochondrial disease**
Chairs: *Silvestro Micera (Pisa), Marcello Bellusci (Madrid)*

09.15 - 09.35 **Lecture I:**
Digital Health: From AI to Data-Intensive Platforms and Beyond.
Paolo Ferragina (Pisa)

09.35 - 09.55 **Lecture II: Modeling of physiological and pathological health conditions using AI and wearables.**
Mariangela Filosa (Pisa)

09.55 - 10.10 **Q&A**

10.10 - 11.15 **Session II: Tools of Tomorrow - AI for Biomarkers, Genetics, and Wearables in mitochondrial medicine**
Chairs: *Serenella Servidei (Rome), Robert McFarland (Newcastle)*

10.10 **Mitochondrial Disease Monitoring Through Wearable Devices**
Holger Prokisch (Munich)

10.30 **Biomarkers discovery applying AI**
Dimitri Smirnow (Munich)

10.50 **Impact-UNICAS project: Pediatric Data federation through AI tools.**
Helena Rodriguez-Gonzalez, Natalia Garcia, Rafa Artuch (Barcelona)

11.10 **Intelligent Innovation(s) for Mitochondrial Medicine.**
Keshav K. Singh (Birmingham, USA)

11.30 - 11.45 **Q&A**

11.45 - 12.30 **Session III: Mitochondrial Diseases: Unravelling The Clinical Maze By Omics And Artificial Intelligence**
Chairs: *Maria Lucia Valentino (Bologna), Olimpia Musumeci (Messina)*

11.45 - 12.05 **Automating DNA Mutation Identification in Primary Mitochondrial Diseases Using Non-Genetic and Histological-Free Clinical Data.**
Andrea Bandini (Pisa)

12.05 **Round Table: the future of mitochondrial medicine in view of the AI-Powered Tools. An European Perspective**
A. Bandini, M. Bellusci, V. Carelli, T. Klopstock, R. McFarland, G. Primiano, C. Lamperti, S. Micera, H. Prokisch
Chair: *M. Mancuso*

12.30 **Closing**

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