

World Mitochondria Society

16TH
CONGRESS

Targeting Mitochondria

OCTOBER 22-24, 2025 - BERLIN, GERMANY

Agenda





16th World Congress on Targeting Mitochondria

October 22-24, 2025 – Berlin, Germany

– Day one –

Wednesday, October 22, 2025

Mitochondria Workshop 2025

13h00 – Materials Distribution



14h00 Workshop 1

Mitochondria Function Evaluation: Workshop Highlights, Methods, Discrepancies, and Recommendations

Naïg Gueguen, Mitovasc Institute, Centre Hospitalier Universitaire d'Angers, France

- *Focus: Investigation of mitochondrial function, dysfunction, and activities.*
- *Purpose: To advance comprehension of mitochondria, metabolism, and bioenergetics.*
- *Content: Features technological instruments, biomarkers, and diagnostic methodologies for mitochondrial diseases.*
- *Application: Incorporates practical cases for experiential learning and insight.*

15h30 - Coffee Break



16h00 Workshop 2

Mitochondria Transplantation: From Theoretical to Clinical Applications

Andrés Caicedo, Universidad San Francisco de Quito, Ecuador

- *How it works – Understanding mitochondrial transfer and transplantation*
- *Barriers and pitfalls to avoid – Challenges to navigate during the process.*
- *Challenges and future perspectives – Emerging applications, issues and potential solutions.*
- *Methods and tools – Supporting materials provided in the workshop book.*

17h30 Discussion with Naïg Gueguen & Andrés Caicedo

18h00 End of the Workshop



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8h00 – Materials Distribution & Welcome Coffee

8h50 – Welcome Note

Volkmar Weissig, *President of the World Mitochondria Society*

Keynote Speech Day 2



9h00

Mitochondria and the Meaning of Life

Nick Lane, *University College of London, United Kingdom*

Session 1 – Mitochondrial Dynamics in Health and Diseases: Mechanistic and Perspectives

Presentations length: 20 minutes + 5 minutes Q&A



9h30

Actin Dynamics in Mitochondrial Function: Implications for Cellular Homeostasis and Disease

Marc Germain, *Université du Quebec, Canada*



9h55

Immune Evasion through Tumor-Derived Mitochondrial Transfer

Yosuke Togashi, *Okayama University, Japan*



10h20

Nerve-to-Cancer Mitochondrial Transfer: A Key Driver of Metastasis

Simon Grelet, *University of South Alabama, USA*

10h45 – 11h30 - Coffee Break, Networking & Poster Session



11h30

Targeting Mitochondrial Pyruvate Carrier: Impact on Future Metabolic Therapies

Edmund Kunji, *University of Cambridge, United Kingdom*



11h55

Fighting Fire with Fire: Boosting T Cell Therapy by Intercellular Mitochondrial Transfer

Luca Gattinoni, *Leibniz Institute for Immunotherapy, Germany*

12h20 – 14h00 – Lunch Break, Networking & Poster Session



14h00 **Mitochondrial Protein Synthesis: A Key on Health and Disease / Mitochondria and Disease**
Joanna Rorbach, Karolinska Institutet, Sweden



14h25 **Mitochondrial Dynamics: Steering the Future of Mitochondrial Remodeling in Health and Disease**
Tatjana Kleele, Institute of Biochemistry, ETH Zurich, Switzerland



14h50 **How Mitochondria Organize Their Powerhouse Machinery for Optimal Performance**
Florent Waltz, University of Basel, Switzerland

15h15 **Short Oral Presentations (4 slots) - Presentations length: 8 minutes + 2 minutes for discussion**

AI-driven Mitochondria and Organelle Analysis in Label Free Images
Mathieu Frechin, Nanolive SA, Switzerland

Quantitative Cellular Characterization of Extracellular Mitochondria Uptake and Delivery
Gregory Lavieu, INSERM, Université Paris Cité, France

The Mitochondrial DNAJC Co-Chaperone TCAIM Reduces A-Ketoglutarate Dehydrogenase Protein Levels to Regulate Metabolism
Wen Yang, Shanghai Jiaotong University, China

15h45 – 16h30 Coffee Break, Networking & Poster Session

Session 2 – Advances in Mitochondria: Insights, Debates, and Controversies

Presentations length: 20 minutes + 5 minutes Q&A



16h30 **Delocalisation of the Macromolecular Devices for Efficient ATP Synthesis in Extra-Mitochondrial Districts**
Alessandro M. Morelli, University of Genoa, Italy

16h55 **Short Oral Presentations (6 slots) – Abstract Submission is open**

Can We Untie the Linkage Between Life Extension and a Decline in Healthspan via Healthy Mitophagy
Einav Gross, Hebrew University of Jerusalem, Israel

Regulation of Respiratory Supercomplexes Through Inhibitory Cytochrome C Oxidase Y304 Phosphorylation Causes Mitochondrial Dysfunction in Diabetic Heart
Tasnim Arroum, Wayne State University, United States of America

Time-Restricted Feeding, Whole-Body Mitochondrial Synchronization and Health Status
Dylan Sarver, University of California Los Angeles, USA

Glucose Transporter 1 (Glut1) Controls the Humoral Immune Response by Regulating Mitochondrial Activity in B Lymphocytes
Katharina Pracht, University Hospital Erlangen, Germany

18h00 End of Targeting Mitochondria 2025 Day 2

20h00 Meet the Speakers Dinner (for ticket holders only)

– Day three –

Friday, October 24, 2025

8h25 – Registration & Welcoming of Attendees

Keynote Speech Day 3



8h30 **Targeting Mitochondrial Channels: Update and Strategies**
Adam Szewczyk, Nencki Institute of Experimental Biology, Poland

Session 3 – Emerging Trends and Innovations in Mitochondria Research



9h00 **Brain Organoids for Drug Discovery of Mitochondrial Neurological Disorders**
Alessandro Prigione, Heinrich Heine University, Germany



9h25 **Mitochondria and Creatine: Perspectives and Strategies**
David Rizo Roca, Karolinska Institutet, Sweden



9h50 **Mitochondrial Cybrids: Advancing Precision Oncology**
Alberto Anel, University of Zaragoza, Spain



10h15 **The Role of Mitochondrial-Derived Vesicles in Peroxisome Biogenesis**
Ayumu Sugiura, Juntendo University, Japan

10h40 – 11h25 Coffee Break, Networking & Poster Session

Session 4 – Mitochondria Medicine: Strategies to Target Mitochondria, Clinical Trials and Potential Mitochondria-Based Therapies



11h25 **Drug Development for the Therapy of Mitochondrial Diseases**
Volkmar Weissig, Midwestern University, College of Pharmacy Glendale, USA



11h50 **Development of Mitochondria-Based Therapeutic Strategies for Disease Treatment**
Kosuke Kusamori, Tokyo University of Science, Japan



12h15 **Mitochondrial Transplantation: From Skeletal Muscle Atrophy to Human Clinical Advances and Perspectives**
Gökhan Burçin Kubat, Baskent University, Turkey

12h40 – 13h45 - Lunch Break, Networking & Poster Session



13h45 **Mitochondria Transplantation: From Theoretical to Clinical Applications**
Andrés Caicedo, *Universidad San Francisco de Quito, School of Medicine, Ecuador*



14h10 **Engineering Mitochondria to Treat Organ Injury Diseases**
Xing Zhou, *Kunming Medical University, China*

14h35 **Short Oral Presentations & Innovations (5 slots) – Abstract Submission is open**

Presentations length: 8 minutes + 2 minutes for discussion

MNRR1-Derived Peptides, a Promising Therapeutic Target for Mitochondrial Dysfunction Syndromes

Lawrence Grossman, *Wayne State University, United States of America*

Advanced Strategies for Correcting Mitochondrial Mutations in Human Disease Models

Martijn Koppens, *UMC Utrecht, Netherlands*

Restoring Mitochondrial Quantity and Quality to Reverse Warburg Effect and Drive Tumor Differentiation

Jiangbin Ye, *Stanford University, United States of America*

Mitochondrial Transplantation as a Novel Therapeutic Strategy for Anthracycline-Induced Cardiotoxicity

Sofia Trigo Anca, *Centro Nacional de Investigaciones Cardiovasculares, Spain*

Mitochondrial Transplantation as a Precision Strategy for Radiobiological Sensitization in Metabolically Stratified Glioblastoma

Christopher Cifarelli, *West Virginia University, US*

15h25 Targeting Mitochondria 2025 Awards & Concluding Remarks

16h30 Networking Accompanied by Drinks and Appetizers

17h00 End of World Mitochondria Society's Annual Meeting

For more information, please visit: www.wms-site.com.