Targeting Mitochondria

Oct. 26 » 28 2022
Berlin ◇ Germany
Welcome to the World Mitochondria Society Annual Meeting

On behalf of the Scientific Committee of the World Mitochondria Society (WMS), we are excited to announce that the 13th World Annual Meeting of WMS on Targeting Mitochondria will be held as on for October 26-28, 2022 in Berlin, Germany.

After the great success of the 12th WMS Meeting in 2021 that was held virtually with interactive sessions for discussion, we are hoping that personal interactions among colleagues from around the world will be a major feature of our 13th World Annual Meeting.

While we have just started working on the outline of our next conference edition, we will potentially discuss the following topics:

- Mitochondrial Dysfunctions and Dynamics in Chronic Diseases
- Mitochondria transplantation and transfer
- Extracellular Vesicles & Mitochondria: The Target
- Mitochondria and Immunity and Cancer
- Nuclear-Mitochondrial Interactions and their Effect on Longevity and Health
- Strategies to Target Mitochondria: Clinical Trials and Potential Mitochondria-based Therapies
- WMS Challenges in the Acceleration of Mitochondrial Medicine

Basic scientists working at the bench in the laboratory, physicians treating patients suffering from mitochondrial disorders as well as representatives of companies working on the commercialization of mitochondria-targeted therapies are all welcome to our conference. I assure anyone who is going to join us in this year's Congress in October 2022 that you won't be disappointed!

We are looking forward to meeting you all!

All our warmest regards.

Prof. Volkmar Weissig
President of the World Mitochondria Society
Midwestern University, USA
Mitochondria Workshop 2022: How to Evaluate Mitochondria Function?

**Part 1:** Bioenergetics. Metabolism, mitochondrial respiration rates, ATP synthesis, mitochondrial membrane potential and respiratory chain activities.

**Part 2:** Mitochondrial biogenesis, dynamics and mitophagy

**Part 3:** Biochemical diagnosis of mitochondrial diseases

*Dr. Naïg Gueguen, Mitovasc Institute, Mitolab team, INSERM 1083, CNRS 6215, Centre Hospitalier Universitaire d'Angers, Angers, France*

For full agenda, registration, and information, please follow this link
13th World Congress on Targeting Mitochondria
October 26-28, 2022 – Berlin, Germany

Agenda

– Day One –
Thursday, October 27, 2022

9h00 - Welcome Note of Targeting Mitochondria 2022

Volkmar Weissig, President of the World Mitochondria Society, Midwestern University, USA

Marvin Edeas, Founder & Chairman of The Scientific Committee, University de Paris, INSERM 1016, Institute Cochin, France

Session 1: Mitochondrial Dysfunctions and Dynamics in Chronic Diseases

Regulation of Mitochondrial Signaling in Cardiomyopathy During Sepsis
Qun Sophia Zang, Loyola University Chicago Health Science Campus, USA

Exercise, Mitochondrial Adaptations, and Fatty Liver
Cora Weigert, University Hospital Tuebingen, Germany

The Multiple Facets of the Mitochondria Shaping Protein Opa1 in Adipocytes: From Epigenetic to Tissue Plasticity
Camilla Bean, University of Padova, Italy

Short Oral Presentations
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10h30 - Coffee Break

Session 2: Mitochondria Transplantation and Transfer

Recent Advances in Mitochondrial Transplantation Therapy
James McCully, Harvard Medical School Department of Cardiac Surgery Boston Children’s Hospital, USA

Mitochondrial Transfer via MitoPunch
Michael Teitell, University of California, USA

Mitochondrial Transplantation Between Living Cells
Julia A. Vorholt, ETH Zurich, Switzerland

Short Oral Presentations

12h30 - Lunch Break

Session 3: Extracellular Vesicles & Mitochondria: The Target

Mitochondrial, exosomal miR137-COX6A2 in schizophrenia
Ines Khadimallah, Lausanne University Hospital, Switzerland

The Role of Extracellular Vesicles in Mitochondrial Quality Control Mechanisms
Marc Germain, Université du Québec à Trois-Rivières, Canada

Delivery of Mitochondria also known a.k.a the cellular overlords using extracellular vesicles
Devika S Manickam, Duquesne University, USA

Short Oral Presentations

3h30 – Coffee Break

Session 4: Mitochondria, Immunity, and Cancer

End of Congress Day 1
– Day Two –
Friday, October 28, 2022

9h00 – Day 2 sessions start

Session 5 – Nuclear-Mitochondrial Interactions and their Effect on Longevity and Health

Mitochondrial responses to a massive trauma-determinant of survival
Marc G. Jeschke, University of Toronto, Canada

2-Deoxy-D-glucose couples mitochondrial DNA replication with mitochondrial fitness
Ian J. Holt, Biodonostia Health Research Institute, Spain

Short Oral Presentations

10h30 - Coffee Break

Session 6 – Strategies to Target Mitochondria: Clinical Trials and Potential Mitochondria-based Therapies

The Randomized Controlled Phase 2b KHENERGYZE Trial of Sonlicromanol in Primary Mitochondrial Disease MELAS Spectrum Disorders: Topline Results
Jan Smeitink, Khondrion B.V., Netherlands

GM1 oligosaccharide as mitochondrial modulator: implications in neurological diseases
Maria Fazzari, University of Milano, Italy

A Novel PTD-mediated IVT-mRNA delivery platform developed for Protein Replacement Therapy for genetic/metabolic disorders
Lefkothea C. Papadopoulou, Aristotle University of Thessaloniki, Greece

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12h30 - Lunch Break

Session 7 – Translational Therapies - Focus on Infrared Therapies

Noninvasive Treatment of Brain Ischemia-Reperfusion Injury With Near Infrared Light: Working Toward Clinical Implementation
Maik Hüttemann, Wayne State University, USA

Short Oral Presentations

3h00 – Coffee Break

Session 8 – WMS Challenges in the Acceleration of Mitochondrial Medicine

Mitochondrial targeting in aging and injury
Raghavan Pillai Raju, Medical College of Georgia, USA

The Potential of Mitochondrial Genome Engineering
Pedro Silva-Pinheiro, University of Cambridge, United Kingdom

The Alternate Version of Tricarboxylic Acid Cycle Underlying Cellular Identity
Paige Arnold, Memorial Sloan Kettering Cancer Center, USA

Unlocking the potential of the mammalian electron transport chain
Jessica Spinelli, Whitehead Institute for Biomedical Research, USA

Folic Acid Supplementation Improves Drosophila Parkin Loss-of-Function Phenotype and Decreases Mitochondrial Hydrogen Peroxide Levels in Vulnerable Dopaminergic Neurons
Lori Buhlman, from Midwestern University Glendale, USA

Short Oral Presentations

Concluding Remarks

Scientific & Innovations Awards

End of Targeting Mitochondria 2022

Note that you can submit your abstracts on any of those sessions. Submit your abstract.