WORLD MITOCHONDRIA SOCIETY

10th Anniversary of
TARGETING MITOCHONDRIA CONGRESS

SCIENTIFIC AGENDA

OCTOBER 27-29, 2019 - BERLIN, GERMANY

www.targeting-mitochondria.com
Dear Colleagues and Friends,

I am excited and honored to announce on behalf of the Scientific Committee of the World Mitochondria Society, “The 10th Anniversary World Congress on Targeting Mitochondria", which will be held in Berlin, Germany, on October 28-29, 2019.

The overarching themes of our 10th Anniversary World Congress on Targeting Mitochondria will not significantly deviate from topics discussed at preceding editions of our conference series. Again, we will focus on three major areas, which are first the role of mitochondrial dysfunction in etiology and pathogenesis of chronic diseases including aging, secondly how to assess and above all quantify mitochondrial dysfunction in vitro and in vivo and finally, thirdly, how to target and manipulate mitochondrial function in order to develop future mitochondria-based therapies.

Further, in continuation of last year’s successful conference, we will invite speakers to focus on the cross-talk between mitochondria and microbiota as well as on mitochondrial dynamics in health and disease. Also we will focus on intracellular stress pathways involving mitochondrial dysfunction and cell death.

For the 10th edition of “Targeting Mitochondria”, the scientific committee will invite again key players in Mitochondrial Medicine, i.e. investigators who have been pushing the progress in their particular field of mitochondrial research over the last few years. Basic researchers 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. We strongly believe that our jubilee World Congress on Targeting Mitochondria will be at least as exciting and successful as majority of our previous meetings.

As always, we look forward to seeing you very much in Berlin for this exciting event.

Prof. Volkmar Weissig
President of the World Mitochondria Society
Midwestern University, USA
### Targeting Mitochondria 2019 Tracks

- Recent advances on mitochondrial dysfunctions and dynamics in chronic diseases: the mechanics
- The challenge of qualitative and quantitative assessment of mitochondrial function in vitro and in vivo
- Mitochondria & Microbiota intertalk
- Strategies to target mitochondria: Clinical trials and potential mitochondria-based therapies
- Special Session: Mitochondria & Skin

### Key Dates to remember

- **Short Oral Submission**
  - **Sat.**
  - **Oct. 5, 2019**

- **Poster Submission**
  - **Fri.**
  - **Oct. 15, 2019**
Scientific Agenda

Sunday October 27, 2019

17h00 – 18h00  Registration & material delivery

Monday October 28, 2019

7h45  Registration & material delivery

8h20  Introduction of Targeting Mitochondria
   *Prof. Volkmar Weissig*, President of World Society Mitochondria

8h30  Honorary Lecture: Mitochondrial genetics and Human Disease
   *Douglas C. Wallace*, Center for Mitochondrial and Epigenomic Medicine, USA

Session 1: Recent advances on mitochondrial dysfunctions and dynamics in chronic diseases: The mechanistic

8h55  Selective Segregation of Mitochondria in Asymmetric Stem Cell Divisions
   *Pekka Katajisto*, Center of Excellence in Stem Cell Metabolism, Finland

9h15  Cardiac Glycosides Modulate Neuroblastoma Stem Cell Survival by Dysfunctional Mitophagy
   *Marc Diederich*, Seoul National University, South Korea

9h35  Mitochondria, as Central Regulators of Neural Stem Cell Fate
   *Ruth Slacks*, University of Ottawa, Canada

9h55  The brain MITOxy Project: From Mitochondria to Proteases and Reactive Species Interactome in Brain
   *Laurent Chatre*, Université de caen-Normandie, CEA, France

10h15 Increased Hydrogen Peroxide and Decreased Glutathione Redox Potential May Cause Dopaminergic Neurodegeneration in Parkin Loss-of-Function
   *Lori M. Buhlman*, Midwestern University, USA

10h35  Coffee Break & Poster Session

11h20 The Challenge of Qualitative and Quantitative Assessment of Mitochondrial Function in Vitro And in Vivo: What We Know in 2019?
   *Egbert Mik*, University Medical Center Rotterdam, The Netherlands

11h40 Mitochondria & Microbiota Inter-talk: Gut Microbiota influence Mitochondria activity in patients
   *Marvin Edeas*, University Paris Descartes, INSERM U1016, France

12h00 Host Mitochondria Influence Gut Microbiome Diversity: A Role For ROS
   *Tal Yardeni*, Children's Hospital of Philadelphia, USA

Short oral presentations (7 minutes for presentation + 3 minutes for questions)

   The ESRE Network: A Conserved Master Stress Response that Surveils Mitochondrial Damage
   *Natasha Kirienko*, Rice University, USA

12h30  Lunch Break, Networking & Poster Session

14h00  T-Cell Metabolism and Mitochondrial Function
   *Alessia Angelin*, Children's Hospital of Philadelphia, USA
14h20 The Cellular Stress Protein MNRR1/CHCHD2 and Mitochondrial Disease
Lawrence Grossman, Wayne State University, USA

14h40 Mitochondrial Copper Toxicity with a Focus on Wilson Disease
Hans Zischka, Institute of Molecular Toxicology and Pharmacology, Germany

15h00 Roles for Mitochondrial Dysfunction in Alzheimer’s Disease
Benedict C. Albensi, Max Rady College of Medicine - University of Manitoba, Canada

15h20 Coffee Break, Networking & Poster Session

16:00 Short oral presentations of Sessions 1 (7 minutes for presentation + 3 minutes for questions)

Role of Mitochondria in Regulation of Insulin and Glucagon Secretion
Marko Marhl, University of Maribor, Slovenia

Activation of Respiratory Chain Complexes by Unique Mitochondrial Ribosomes during Stem Cell Differentiation
Yan Qin, Chinese Academy of Sciences, China

Mitochondrial Dysfunction and Insulin Resistance Induced by Endotoxin was Restored by GPR120 Agonist, TUG-891 in Brown Adipocytes
Farah Omran, University of Warwick, United Kingdom

Whole Exome Sequencing of Chagas Disease Cardiomyopathy Families Reveals Accumulation of Rare Variants in Mitochondrial and Inflammation-Associated Genes
Edecio Cunha-Neto, University of São Paulo School of Medicine, Brazil

The Role of Mitochondrial DNA During Chondrogenesis using Human Mesenchymal Stem Cell without MTDNA (RHO-0)
Mercedes Fernandez-Moreno, Institute for Biomedical Research INIBIC, Spain

Adenosine Triphosphate (ATP) Synthesis by Endogenous UV Radiation
Thomas Valentine Prevenslik, QED Radiations, Germany

18h30 End of the first day

20h30 Targeting Mitochondria Dinner
Appointment in the lobby of the hotel. If you would like to participate, please register online or contact the staff on site.
Tuesday October 29, 2019

Symposium:
Actin(g) on mitochondria:
The role of actin-regulating proteins on mitochondria in health and disease

08h30  Introduction: Role of Actin-regulating Proteins on Mitochondria
Carsten Culmsee, Marburg, Germany

Cofilin Dependent Mitochondrial Dysfunction Following Hemorrhagic Brain Injury and Neuroinflammation
Zahoor Shah, Toledo, USA

Mitochondrial Functions of The Actin-Regulatory Protein Cofilin1
Marco Rust, Marburg, Germany

Knock-down of ADF/Cofilin in C. Elegans - Effects on Mitochondrial Function
Gunter Eckart, Gießen, Germany

Mitochondrial Parameters in Cardiomyocytes in Health and Disease
Christoph Maack, Würzburg, Germany

Mitochondrial Calcium Regulation in Hypertensive Heart Disease
Jelena Plakic, Marburg, Germany

Mitochondrial Alterations in Heart Failure
Susanne Rohrbach, Gießen Germany

Blocking Mitochondria-targeted Ferroptosis Prevents Cardiomyopathy
Fudi Wang, University School of Medicine, Hangzhou, China

10h30  Coffee Break, Networking & Poster Session

Session 2: Mitochondria & Skin: Recent Advances

11h15  Role of PGC-1S in Human Epidermal Physiology
Sibylle Jäger, L’Oréal Research & Innovation, France

11h35  Cannabinoids and Skin: The "C(ut)annabinoid" System as a Novel Player in Regulating Cutaneous Mitochondrial Biology
Attila Oláh, University of Debrecen, Hungary

11h55  Mitochondria and Skin: Mitochondria in Wound Healing
Jakob Wikström, Karolinska University Hospital, Sweden

12h15  Short oral presentations (7 minutes for presentation + 3 minutes for questions)

12h30  Lunch Break, Networking & Poster Session

Session 3: Mitochondria Innovations 2019
Strategies to target mitochondria: Clinical trials and potential mitochondria-based therapies

13h30  Mitochondrial Antioxidant Therapy for Treating Vascular Aging
Douglas R Seals, University of Colorado Boulder, USA

13h50  2,4-Dinitrophenol as Medicine
John G. Geisler, Mitochon Pharmaceuticals, Inc, USA

14h10  Mitochondria-Targeted Low-Molecular Weight Compounds for Probing Mitochondrial Functions
Richard C. Hartley, University of Glasgow, United Kingdom
Round Table Discussion: The Unanswered Questions

Despite the wealth of data typically presented, many questions of the participants remain unanswered, and for many scientists, even those who have been considered as keynote speakers, there is only limited opportunity to interact with colleagues. To facilitate the scientific discourse and make the conference more interactive, the scientific committee has decided to include a round table discussions that address hot topics, challenges and pressing questions related to various areas of Mitochondria medicine and research.

All participants are invited to participate in these discussions by sending their questions and thoughts before the meeting by the September 30, 2019.

Submit your Best Mitochondria Image for selection

For our 10th anniversary, the World Mitochondria Society has launched a call for selecting YOUR BEST Mitochondria IMAGE.

Submit a memorable Mitochondria image you’ve taken this past year and be entered into a drawing for 3 prizes:

First place: 2 nights hotel and free registration at Targeting Mitochondria
Second place: Free Registration
Third place: One Dinner

Entries must be original. We also accept all Art works and drawing related to Mitochondria (life, death, energy, dynamics and philosophy...)

By submitting your image and caption, you give the WMS permission to include your image (with proper credit being given) into our 2nd edition of MiMB "Mitochondrial Medicine".

To submit, please send us your Mitochondria image + Name and Affiliation to mitochondria(at)targeting-mitochondria.com