

9th World Congress on Targeting Mitochondria

World Mitochondria Society



Targeting Mitochondria 2018

October 23-25, 2018
Steigenber Hotel Berlin, Germany



www.targeting-mitochondria.com

Congress Tracks:

- Recent advances on mitochondrial dysfunctions and dynamics in chronic diseases: the mechanistics
- 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 workshop : Mitochondria & ageing

Key dates:

- Mon.** Early Bird Registration
Sept. 24, 2018
- Wed.** Short Oral Submission
Sept. 5, 2018
- Thur.** Poster Submission
Sept. 27, 2018

Targeting Mitochondria 2018 Speakers



Targeting Mitochondria: Welcome note & introduction

Volkmar Weissig
President of WMS, Midwestern University, USA



Using live imaging to investigate the causes and consequences of mitochondrial toxicity in the kidney

Andrew Hall
University of Zurich, Germany



Healing the heart through mitochondrial dynamics: a love-hate relationship

Sang-Bing Ong
Duke-NUS Medical School, Singapore



The transcriptomic and proteomic landscape of mitochondrial dysfunction in mouse

Inge Kühl
CNRS - I2BC, France



Mechanism and therapeutic potential of cyclophilin inhibitors for prevention of mitochondrial myopathy progression

Håkan Westerblad
Karolinska Institutet, Sweden



The legal framework for mitochondrial therapy
Identifying and preventing legal pitfalls within the translation from bench to bedside

Timo Faltus,
Martin-Luther-Universität Halle-Wittenberg, Germany



Targeting mitochondrial metabolism, geroprotection to treating Alzheimer's disease

Antonio Currais
The Salk Institute for Biological Studies, USA



Metabolic switches saving mitochondria from oxidative stress

Carsten Culmsee
Universität Marburg, Germany



Cellomics of mitochondrial morphofunction

Werner Koopman
RadboudUMC University, The Netherlands



Reversing wrinkled skin and lost hair in mice by restoring mitochondrial function

Keshav Singh
University of Alabama at Birmingham, USA



Mitochondrial involvement in cell life/death regulation: Presentation of new scientific results

Vladimir Gogvadze
Karolinska Institute, Sweden



Mitochondrial fission in human diseases

Madhavika N. Serasinghe
Icahn School of Medicine at Mount Sinai, USA



Foxp3 increases oxidative phosphorylation and Nad oxidation, adapting regulatory t cells to low glucose high lactate environments

Alessia Angelin
Children's Hospital of Philadelphia, USA



Mitochondrial potassium channels: new regulation mechanisms?

Adam Szewczyk
Nencki Institute of Experimental Biology, Poland



Phase 2 motor study of Omaveloxolone in patients with mitochondrial myopathies

John Vissing
Copenhagen University, Denmark



Utilizing a human hepatoma cell line to study off-target effects of drugs on mitochondrial DNA maintenance and bioenergetics

Matthew Young
Southern Illinois University School of Medicine, USA



The mitochondrial link to cocaine addiction: Recent scientific advances

Mary Kay Lobo
University of Maryland School of Medicine, USA



Mitochondrial dynamics in cell life and death

Luca Scorrano
University of Padova, Italy



Therapeutic application of specific near-infrared light wavelengths that inhibit cytochrome C oxidase results in robust neuroprotection

Maik Hüttemann
Wayne State University School of Medicine, USA



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Introduction Note by the President of World Mitochondria Society

Dear Colleagues and Friends,

I am excited and honored to announce on behalf of the Scientific Committee of the World Mitochondria Society the **9th World Congress on Targeting Mitochondria**, which will be held in Berlin, Germany, on October 23-25, 2018.

The overarching themes of our 9th 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, second how to assess and above all quantify mitochondrial dysfunction in vitro and in vivo and finally, third, how to target and manipulate mitochondrial function in order to develop future mitochondria-based therapies.

However, this year we will also focus on the cross-talk between mitochondria and microbiota as well as on mitochondrial dynamics in health and disease. Furthermore, we will address nutritional and pharmaceuticals interventions for mitochondrial respiratory deficiencies and we will highlight the role of mitochondria in the process of aging

For the 9th edition of "Targeting Mitochondria", the scientific committee has again succeeded in inviting 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 (a few invitations are still pending). Basic researches 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 9th World Congress on Targeting Mitochondria will be at least as exciting and as successful as many of our previous meetings.

Our conference will involve the following sessions, for more details please see our preliminary program below.

- *Recent advances on mitochondrial dysfunction and dynamics in etiology and pathogenesis of human diseases: the mechanistics*
- *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 workshop on Mitochondria and ageing*

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



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



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9th World Congress on

Targeting Mitochondria

October 23-25, 2018 – Steigenberger Hotel, Berlin, Germany

Scientific Preliminary Agenda

Day 1 – Tuesday October 23, 2018

17h00 – 18h00 Registration & material delivery

Day 2 – Wednesday October 24, 2018

7h45 Welcoming & Registration of Attendees

8h45 Opening ceremony by Targeting Mitochondria World Congress Chairmen

Session 1: Recent advances on mitochondrial dysfunctions and dynamics in chronic diseases: the mechanistics

9h00 – 15h00

FOXP3 increases oxidative phosphorylation and NAD oxidation, adapting regulatory T cells to low glucose high lactate environments.

Alessia Angelin, Children's Hospital of Philadelphia, Philadelphia, USA

Targeting mitochondrial metabolism, geroprotection to treating Alzheimer's disease

Antonio Currais, The Salk Institute for Biological Studies, La Jolla, USA

Healing the heart through mitochondrial dynamics: a love-hate relationship

Sang-Bing Ong, Duke-NUS Medical School, Singapore

Mitochondrial fission in human diseases

Madhavika N. Serasinghe, Icahn School of Medicine at Mount Sinai, USA

10h40 Coffee Break & Poster Session

Metabolic switches saving mitochondria from oxidative stress

Carsten Culmsee, University of Marburg, Marburg, Germany

Utilizing a human hepatoma cell line to study off-target effects of drugs on mitochondrial DNA maintenance and bioenergetics

Matthew Young, Southern Illinois University School of Medicine, Carbondale, USA

The mitochondrial link to cocaine addiction: recent scientific advances

Mary Kay Lobo, University of Maryland School of Medicine, Baltimore, USA

Mitochondrial involvement in cell life/death regulation: presentation of new scientific results

Vladimir Gogvadze, Karolinska Institute, Stockholm, Sweden

Mitochondrial dynamics in cell life and death

Luca Scorrano, University of Padova, Padova, Italy

13h00 Lunch Break, Networking & Poster Session



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Mitochondrial potassium channels: new regulation mechanism?

Adam Szewczyk, Nencki Institute of Experimental Biology, Warsaw, Poland

The transcriptomic and proteomic landscape of mitochondrial dysfunction in mouse

Inge Kühl, CNRS - Institut de Biologie Intégrative de la cellule (I2BC), Gif-sur-Yvette, France

Session 2: The challenge of qualitative and quantitative assessment of mitochondrial function *in vitro* and *in vivo*

15h00 – 19h15

Cellomics of mitochondrial morphofunction

Werner Koopman, RadboudUMC University, Nijmegen, The Netherlands

Using live imaging to investigate the causes and consequences of mitochondrial toxicity in the kidney

Andrew Hall, University of Zurich, Germany

16h30 Coffee Break, Networking & Poster Session

Short oral presentations for sessions 1 & 2 (7 minutes of presentation + 3 minutes for questions)

Among presentations already accepted:

A luminescent assay for mitochondrial injury measurement upon targeting mitochondria by DNAi

Saman Hosseinkhani, Tarbiat Modares University, Tehran, Iran

19h15 End of the first day

20h30 Targeting Mitochondria Dinner at Steigenberger Hotel Berlin

Appointment in the lobby of the hotel. If you would like to participate, please register online or contact the staff on site.



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Day 3 – Thursday October 25, 2018

8h55 Opening of the second day

Session 3: Mitochondria & microbiota intertalk

9h00 – 10h15

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

10h15 Coffee Break, Networking & Poster Session

Session 4: Strategies to target mitochondrial: clinical trials and potential mitochondria-based therapies

11h00 – 15h30

Therapeutic application of specific near infrared light wavelengths that inhibit cytochrome C oxidase results in robust neuroprotection.

Maik Hüttemann, Wayne State University School of Medicine, Detroit, USA

Mechanism and therapeutic potential of cyclophilin inhibitors for prevention of mitochondrial myopathy progression

Håkan Westerblad, Karolinska Institutet, Stockholm, Sweden

Phase 2 motor study of Omaveloxolone in patients with mitochondrial myopathies

John Vissing, Copenhagen University, Copenhagen, Denmark

The legal framework for mitochondrial therapy

Identifying and preventing legal pitfalls within the translation from bench to bedside

Timo Faltus, Martin-Luther-Universität Halle-Wittenberg, Halle, Germany

The Nicotinamide Riboside Journey from Discovery to Clinical Efficacy

Frank Jaksch, ChromaDex, USA

Reversing wrinkled skin and lost hair in mice by restoring mitochondrial function

Keshav Singh, University of Alabama at Birmingham, USA

13h00 Lunch Break, Networking & Poster Session

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

15h30 Coffee Break & Poster Session

Special workshop: Mitochondria & ageing

15h55 – 17h30

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

17h00 Discussion & concluding remarks

Targeting Mitochondria 2018 Awards

17h30 End of Targeting Mitochondria 2018