

Targeting Mitochondria 2012

3rd World Congress on

Targeting Mitochondria

Strategies, Innovations & Clinical Applications



November 8-9, 2012 - Hotel Ritz-Carlton

Berlin, Germany

www.targeting-mitochondria.com

Targeting Mitochondria 2012

Scientific Committee:

Marvin Edeas, *President of International Society of Antioxidants in Nutrition and Health, Paris, France*

Douglas Wallace, *Center of Mitochondrial and Epigenomic Medicine, Philadelphia, USA*

Volkmar Weissig, *Midwestern University College of Pharmacy Glendale, USA*



Among Speakers:

Daniela Arduíno, *Center for Neurosciences and Cell Biology, University of Coimbra, Coimbra, Portugal*

Thomas Becker, *Institute for Biochemistry and Molecular Biology, Freiburg, Germany*

Richard Hartley, *University of Glasgow, Glasgow, United Kingdom*

Mary Herbert, *Institute for Ageing and Health, Newcastle, UK*

Rejko Krüger, *University of Tuebingen, Tuebingen, Germany*

Afshan Malik, *King's College London, Diabetes research Group, School of Medicine, London, UK*

Meagan McManus, *Center of Mitochondrial and Epigenomic Medicine, Philadelphia, USA*

Paulo Oliveira, *University of Coimbra, Coimbra, Portugal*

Brendan Payne, *Institute of Genetic Medicine, Newcastle University, Newcastle, UK*

Alessandro Prigione, *Max-Planck Institute for Molecular Genetics, Berlin, Germany*

Yuma Yamada, *Faculty of Pharmaceutical Sciences, Hokkaido, Japan*

Antonio Zorzano, *Institute for Research in Biomedicine, Barcelona, Spain*



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After the success of the two first editions held in 2010 & 2011, the Scientific Committee of the International Society of Antioxidants in Nutrition and Health (**ISANH**) decided to organize the **3rd World Congress on Targeting Mitochondria** which will be held in **Berlin in November 8-9, 2012**.

Mitochondrial dysfunctions are associated with hundred of pathologies such as cancer, diabetes, neurodegenerative diseases, migraine, infertility, kidney diseases, liver diseases, toxicity of HIV drugs, aging...

It is becoming a necessity and an urge to know why and how to target mitochondria with bioactive molecules, drugs or nutrients in order to treat and prevent pathologies and chronic diseases.

This 3rd World Congress on Targeting Mitochondria will cover a variety of new strategies and innovations as well as clinical applications in Mitochondrial Medicine.

Just as for the two previous editions of "Targeting Mitochondria", the scientific committee has again succeeded in inviting an outstanding panel of speakers; each one of which a leader in their particular field.

Different sessions will be held:

- *Mitochondrial dysfunctions in chronic diseases: recent advances and conclusions*
- *Devices, Methods & Mitochondria: Innovations & New Opportunities*
- *The Mitochondria Engineering concept: Challenges & Limits*
- *Strategies to target mitochondria : Recent Clinical data and potential Therapeutic Studies*

The Scientific Committee has selected **two hot topics** for this year's meeting. The first topic involves **Mito-Devices**, which are novel tools for probing mitochondrial function under physiological and pathological conditions. The second topic focuses on **Mito-Engineering**, i.e. novel strategies and means towards manipulations of mitochondrial function. Mito-devices and Mito-engineering are essential for making mitochondria-targeted therapeutics clinical feasible, therefore clinical applications are the underlying theme of the 3rd edition of Targeting Mitochondria.

With this exciting program, we look forward to welcoming you in Berlin for this particular event.

Pr Marvin Edeas - Pr Volkmar Weissig

Chairmen of the Scientific Committee

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Day 1 - November 8, 2012

9:00 – 12:30

8:00 Registration

9:00 Welcome Note

Marvin Edeas, President of International Society of Antioxidants in Nutrition and Health, Paris, France
Volkmar Weissig, Midwestern University College of Pharmacy Glendale, USA

General Introduction of Targeting Mitochondria 2012: Mitochondria: Huge Steps to New Medicine

Douglas Wallace, Center of Mitochondrial and Epigenomic Medicine, Philadelphia, USA
Meagan McManus, Representing D. Wallace, Center for Mitochondrial and Epigenomics Medicine, Philadelphia, USA

**Session 1: Mitochondrial Dysfunctions in Chronic Diseases and Pathologies:
Recent Advances & Conclusions**

Mitochondria as a Perfect Drug Target in Health and Disease

Paulo Oliveira, University of Coimbra, Coimbra, Portugal

Mitochondria & HIV Infection: Mitochondria Aging is Accelerated by Anti-Retroviral Therapy through the Clonal Expansion of mtDNA Mutations

Brendan Payne, Institute of Genetic Medicine, Newcastle University, Newcastle, United Kingdom

10:45 Break & Posters Session

Diabetes and Mitochondria Alteration: Mitofusin 2 as a Potential Target for the Treatment of Diabetes Type 2

Antonio Zorzano, Institute for Research in Biomedicine, Barcelona, Spain

Mitochondrial DNA Content and Metabolic/Hyperglycaemic Memory: Is there a Connection?

Afshan Malik, King's College London, Diabetes research Group, School of Medicine, London, United Kingdom

Discussion & one short oral presentation

12:45 Lunch Break & Posters Session

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Session 2: Mitochondria into Practice - Devices & Methods for Mitochondria Evaluation

14:00 – 15:30

“In Vivo” Respirometry in Spesis

Floor Harms, Erasmus MC, University Medical Center, Rotterdam, The Netherlands

Short Oral Presentations:

C. Elegans as a Model System to study Drug-induced Mitochondrial Dysfunction

Reuben Smith, University of Amsterdam, Amsterdam, The Netherlands

A Multiparametric Assay on Isolated Mitochondria to Predict Human Liver Injury Induced by Chemicals

Annie Borgne-Sanchez, Mitologics SAS, Paris, France

Exploration of the Infrared Radiation-induced Mitochondrial Oxidative Stress understanding Pathways to better prevent

Emilie Cornille-Robert, ICDD, Meyreuil, France

15:30 Break & Posters Session

Short Oral Presentations

16:00 – 17:30

A Comparative Genomics Approach to Mitochondrial Physiology: 50-year Search for Calcium Channel Ends

Fabiana Perocchi, Ludwig-Maximilians-Universität, Munich, Germany

The Mitochondrial Gas Pedal: Cytosolic Calcium Regulates Energization of Neuronal Mitochondria by Formation of Pyruvate through the Malate Aspartate Shuttle. Physiological and Pathophysiological Consequences

Franck N. Gellerich, Leibniz Institute for Neurobiology, Magdeburg, Germany

Decreased Mitochondrial Function in Skeletal Muscle from Simvastatin treated Patients

Dela Flemming, University of Copenhagen, Denmark

Abnormalities in Mitochondrial Function in Human Neural Cells differentiated from Hair Follicle-derived induced Pluripotent Stem Cells (iPSC) in Schizophrenia

Dorit Ben-Shachar, Faculty of Medicine, Technion, Haifa, Israel

A Brain Study of Lithium-treated Mice and Knockout Mice with Lithium-like Behavior Reveals a common Effect on Mitochondrial Function

Galila Agam, Ben-Gurion University of the Negev, Beer-Sheva, Israel

Nicotine Pretreatment prevents Carbonyl Cyanide M-chlorophenol-hydrozone (CCCP)-induced Mitochondrial Fragmentation and Mitophagy via nAChR Independent Mechanisms in a Human Neuronal-like Cell Line

Lori Buhlman, College of Health Sciences, Midwestern University, Glendale, USA

Emerging Connections between the Evolution of Mitochondrial Dynamics and the Aging Process

Axel Kowald, Institute for Ageing and Health, Newcastle University, United Kingdom

17:30 End of the First Day

19:45 Speakers' Dinner – Berlin over the River

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Day 2 - November 9, 2012

Session 3: Mito-Engineering 2012

The Mitochondria Engineering Concept: Challenges & Limits

9:00 – 10:30

Correcting Human Mitochondrial Mutations with Targeted RNA Import: Recent Advances and Perspectives for Mitochondria Medicine

Michael Teitell, David Geffen School of Medicine at UCLA, Los Angeles, USA

Mitochondria Gene Replacement & Engineering Mitochondria: New Options and Perspectives for Prevention of Mitochondrial Diseases

Mary Herbert, Institute for Ageing and Health, Newcastle, United Kingdom

Targeting Mitochondria by "Magic Molecules": Strategic Role of Chemistry

Richard Hartley, University of Glasgow, Glasgow, United Kingdom

Mitochondria Modeling of Mammalian Development and Human Disease

Carl Pinkert, Auburn University, Auburn, USA

10:30 Break & Posters Session

Session 4: Strategies to Target Mitochondria: Recent Scientific Data and Potential Applications

11:00 – 15:30

Importing Mitochondrial Proteins: Lessons & Perspectives to Target Mitochondria

Thomas Becker, Institute for Biochemistry and Molecular Biology, Freiburg, Germany

Mitochondria, Protein Homeostasis and Microtubule Networks in Parkinson's Disease: When the Tracks Get Patchy

Daniela Arduíno, Center for Neurosciences and Cell Biology, University of Coimbra, Coimbra, Portugal

12:30 Lunch Break & Posters Session

Mitochondrial Reprogramming in Human Induced Pluripotent Stem (iPS) Cells

iPS Cells and Mitochondrial Rejuvenation: Fact or Fiction?

Alessandro Prigione, Max-Planck Institute for Molecular Genetics, Berlin, Germany

Targeting Mitochondrial Dynamics as Therapeutic Approach: New Perspectives for Neurodegeneration in Parkinson's disease

Rejko Krüger, University of Tuebingen, Tuebingen, Germany

Mitochondrial Delivery of Nucleic Acids by DF-MITO-Porter Toward Mitochondrial Gene Therapy

Yuma Yamada, Faculty of Pharmaceutical Sciences, Hokkaido University, Japan

Short Oral Presentations

15:30 – 16:30

16:30 General Discussion and Conclusion of Targeting Mitochondria 2012

16:45 Scientific Contribution Awards & Targeting Mitochondria Awards 2012

17:00 End of the Conference

Drinks & Snacks Meeting for Network Session and B to B Contacts

Posters Session

17:00 – 18:00

Targeting Mitochondria Attendees, Academics and Industrials, are invited to a warm-up networking session over drinks and snacks.

ISANH Targeting Mitochondria 2012

November 8-9, 2012 – Berlin

Targeting Mitochondria 2012

Practical Information

For all information related to Programme, Abstract Submission & Timing, please contact the Scientific Secretary:
isanh@isanh.com

For Supporting & Devices Display: mitochondria@targeting-mitochondria.com

Conference Venue

The Ritz-Carlton, Berlin

Potsdamer Platz 3

10785 Berlin, Germany

For more information about access and hotel, please visit www.ritzcarlton.de



www.targeting-mitochondria.com

Targeting Mitochondria 2012

Registration Form - November 8-9, 2012 – Berlin, Germany

Registration Form to return by Mail, Fax or Email:

Targeting Mitochondria 2012 Conference / ISANH - 15 Rue de la Paix - 75002 Paris

Tel: +33 1 55 04 77 55 - Fax: +33 9 72 16 84 14 - mitochondria@targeting-mitochondria.com

- I would like to register to **Targeting Mitochondria 2011** on November 8-9, 2012
- Industrials**
- Before September 17th **795 €**
 - After September 17th **895 €**
- Academics**
- Before September 17th **395 €**
 - After September 17th **495 €**

Registration includes conference entrance, two lunches and one abstracts book.

- I would like to subscribe to ISANH (Subscription available one year since reception of payment) **135€**
- I cannot attend the conference and I would like to order **Supplementary Abstracts Book** (Unitary Price) **125 €**
- I would like attend the Speakers' Dinner on November 8 **80€**
- I would like to support the conference **Contact us**

Ms Mrs Mr Dr Pr

Last name:

First name:

Society/Faculty:

Division / Department:

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.....

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Targeting Mitochondria 2012

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2. This Sales Contract constitutes a legally binding contract.
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