

INTERNATIONAL SOCIETY OF ANTIOXIDANTS

21st ISANH International Conference on

**Oxidative Stress Reduction,
Redox Homeostasis & Antioxidants**



June 20-21, 2019 | Université Pierre et Marie Curie, Paris, France



INTERNATIONAL SOCIETY
OF
ANTIOXIDANTS



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Institut national
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Dear Colleagues,

It is our great pleasure to present you the **21st International Conference on Oxidative Stress Reduction, Redox Homeostasis and Antioxidants - Paris Redox 2019** – which will be organized at University Pierre et Marie Curie, Paris, France in June 20-21, 2019.

During Paris Redox World Congress 2019, we will discuss the role of antioxidants as modulators of redox signaling pathways rather than players that counteract oxidative stress. Furthermore, we will analyze the mechanisms by which cells respond to oxidative stress and prevent cell damage and cell death. We will also highlight oxidative stress evaluation and discuss the recent advances on biomarkers, related to redox alteration. To understand mechanisms of redox control and their role in oxidative stress pathologies and aging, it is necessary to identify and dissect the function of the key players of redox processes.

Paris Redox 2019 aims to make an important contribution towards a better understanding of redox control in physiological and pathological states that will lead to new therapeutic and disease-preventive agents.

Among the strategic topics which will be discussed:

- *Technical Mechanistics and Fundamental Approach to Study Redox*
- *Redox & Microbiota: From Skin, Brain to gut*
- *Redox in the Reproductive System*
- *Redox, Brain & Neurodegenerative diseases*
- *Redox in the Cancer*
- *Redox 2019 Innovations*
- *Redox 2019 Awards*

We look forward to meeting you in Paris for this exciting program in June.

Prof. Frédéric Batteux

Institut Cochin, Inserm U1016, University Paris Descartes, France
President of Paris Redox 2019

Prof. Marvin Edeas

Institut Cochin, Inserm U1016, University Paris Descartes, France
Chairman of Paris Redox 2019 Scientific Committee

21st ISANH International Conference on
Oxidative Stress Reduction, Redox Homeostasis & Antioxidants

PARIS REDOX 2019

June 20 - 21, 2019 - University Pierre and Marie Curie - Paris, France

Call for Abstracts

Short oral presentation: April 21

Poster presentation: May 15

Early Bird Registration

Register & Save Before

April 24

Discussion & Scientific - Innovation Awards

Do we need to modify Redox Science Terminology

Redox 2020: Where is the Next Target

Paris Redox Scientific & Innovation Awards 2019

PARIS REDOX SPEAKERS



Redox 2019 : Today & Tomorrow

Pedro Buc Calderon, University of Louvain, Belgium



Recent advances on the neuroprotective role of the novel TLDC proteins against oxidative stress

Mattéa Finelli, University of Oxford, United Kingdom



KEAP1-NRF2 Antioxidative stress response system

Masayuki Yamamoto, Tohoku University Graduate School of Medicine, Japan



Uric acid, a major energy regulator of the cell turning into a killer of pancreatic beta-cells

Andrew Bahn, University of Otago, New Zealand



Phagocyte NADPH oxidase, oxidative stress and lipids: anti or pro ageing

Chantal Houée, Université Paris Sud, France



Metabolic switches saving mitochondria from oxidative stress

Carsten Culmsee, Philipps-Universität Marburg, Germany



Lipid Peroxidation & Ferroptosis: Recent advances & Perspective

Sebastian Doll, Helmholtz Zentrum München, Germany



Redox and Other Metabolic Disorders Associated with Autism

Richard Frye, Phoenix Children's Hospital, USA



HDAC8 is modulated by a redox-switch

Franz-Josef Meyer-Almes, University of Applied Sciences Darmstadt, Germany



Commensal microbiota induced redox signaling activates proliferative signals in the intestinal stem cell microenvironment

Rheinallt M. Jones, Emory University School of Medicine, USA



Chemogenetic approaches to dissect redox stress pathways in the cardiovascular system

Thomas Michel, Harvard Medical School, USA



Introduction on the Signaling Pathway & Redox

Paul-Henri Romeo, University of Paris Diderot, France



Dynamic Relationship between the reactive species interactome and bioenergetic metabolism in Brain

Laurent Chatre, CNRS, University of Caen-Normandie, France



Reactive Sulfide Species: An emerging paradigm in redox biology

Kenneth R. Olson, Emeritus Professor of Physiology, Indiana University School of Medicine, USA



Myeloperoxidase, oxidative stress and diseases- can we stop it

Semira Galijasevic, Sarajevo Medical School, Bosnia



Different roles of specific ROS in regulation of myogenic contractions in microarterioles

Christopher Wilcox, Georgetown University, USA



Nrf2 in Duchenne muscular dystrophy

Jozef Dulak, Jagiellonian University, Poland



Lipoic acid for treating multiple sclerosis

Dennis Bourdette, Oregon Health & Science University, USA



Role of oxidative stress in Pathogenesis of Parkinson's disease

Om P. Gulati, Khorphag Research, Switzerland



Thiosulfate as a therapeutic option in Redox diseases

Harry van Goor, University Medical Center Groningen, The Netherlands



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Paris Redox 2019

21st International Conference on Oxidative Stress Reduction, Redox Homeostasis & Antioxidants

June 20-21, 2019
Université Pierre & Marie Curie, Paris, France

Preliminary Agenda

Day 1 - June 20, 2019

07:45 Welcoming & Registration of Attendees

08:50 Opening of Paris Redox World Conference
Frédéric Batteux, President of Paris Redox 2018, Institut Cochin, France

09:00 Introduction to Redox 2019: Today & Tomorrow
Pedro Buc Calderon, University of Louvain, Belgium

Session 1 – Redox 2019: Advances, Mechanistic and Perspectives

09:25 Different roles of specific ROS in regulation of myogenic contractions in microarterioles
Christopher Wilcox, Georgetown University, USA

09:45 Chemogenetic approaches to dissect redox stress pathways in the cardiovascular system
Thomas Michel, Harvard Medical School, USA

10:05 Reactive Sulfide Species: An emerging paradigm in Redox Biology
Kenneth R. Olson, Emeritus Professor of Physiology at Indiana University School of Medicine - South Bend, USA

10:25 Short oral presentations upon abstracts submission (7 minutes for presentation + 3 minutes for questions)

HDAC8 is modulated by a redox-switch
Franz-Josef Meyer-Almes, University of Applied Sciences Darmstadt, Germany

SIRT1 inhibition by peroxynitrite mediates nicotine-induced arterial stiffness in mice
Ping Song, Georgia State University, USA

10:45 Coffee Break & Poster Session

11:15 Introduction on the Signaling Pathway & Redox
Paul-Henri Romeo, University of Paris Diderot, France

11:35 Keap1-Nrf2 Antioxidative stress response system
Masayuki Yamamoto, Tohoku University Graduate School of Medicine, Japan

11:55 Nrf2 in Duchenne muscular dystrophy
Jozef Dulak, Jagiellonian University, Poland

12:15 Uric acid, a major energy regulator of the cell turning into a killer of pancreatic beta-cells
Andrew Bahn, University of Otago, New Zealand

12:35 Lunch break & poster session

14:00 Ferroptosis, a cell death modality caused by lipid peroxidation
Sebastian Doll, Helmholtz Zentrum München, Germany

14:20 **Phagocyte NADPH oxidase, oxidative stress and lipids: anti or pro ageing**

Chantal Houée, Université Paris Sud, France

14:40 **Short oral presentations upon abstracts submission** (7 minutes for presentation + 3 minutes for questions)

The oxidative stress sensor heme-regulated inhibitory (HRI) kinase controls general protein homeostasis by triggering a cytosolic unfolded protein response

Stephen E. Girardin, University of Toronto, Canada

Nitric oxide regulates protein homeostasis by S-nitrosylations of the chaperone Hspa8 and the ubiquitin ligase UBE2D

Irmgard Tegeder, Goethe-University Hospital, Germany

Oxidative stress-induced KLF4 activates inflammatory response through IL17RA and its downstream targets in retinal pigment epithelial cells

David Li, Sun Yat-Sen University, China

15:10 Coffee Break & Poster Session

16:00 *Short oral presentation selected from Abstracts submission*

18:30 **End of the first day**

20:30 **Paris Redox 2019 Dinner**

Day 2 - June 26, 2018

Session 2: Redox, Mitochondria and Microbiota

08:30 **Introduction & Remarks: Mitochondria, Redox and Microbiota**

Marvin Edeas, Institut Cochin, Inserm U1610, University Paris Descartes, France

08:50 **Commensal microbiota induced redox signaling activates proliferative signals in the intestinal stem cell microenvironment**

Rheinallt M. Jones, Emory University School of Medicine, USA

09:10 **Dynamic Relationship between the reactive species interactome and bioenergetic metabolism in Brain**

Laurent Chatre, CNRS, University of Caen-Normandie, France

09:30 **Metabolic switches saving mitochondria from oxidative stress**

Carsten Culmsee, Center for Mind, Brain and Behavior - CMBB, Germany

09:50 **Butyrate enhances mitochondrial function during oxidative stress in cell lines from boys with autism**

Richard Frye, Phoenix Children's Hospital, USA

10:10 **Short oral presentations upon abstracts submission** (7 minutes for presentation + 3 minutes for questions)

Escherichia coli mediated resistance of entamoeba histolytica to oxidative stress is triggered by oxaloacetate

Serge Ankri, Technion, Israel

Short oral presentation selected from Abstracts submission

10:30 Coffee break & poster session

Session 3: Redox, Brain & Other Pathologies

11:15 **Role of oxidative stress in Pathogenesis of Parkinson's disease**

Om P. Gulati, Khorhag Research, Geneva, Switzerland

11:35 **Recent advances on the neuroprotective role of the novel TLDC proteins against oxidative stress**

Mattéa Finelli, University of Oxford, United Kingdom

- 11:55 **Lipoic acid for treating multiple sclerosis**
Dennis Bourdette, Oregon Health & Science University, USA

Short oral presentation selected from Abstracts submission

12:30 Lunch break & poster session

Session 4 - Redox 2019 Innovation

Call for innovation in all field related to Redox, Health and Medicine.
If you wish to present your devices, methods and Innovations, please submit your Abstract

- 13:30 **Thiosulfate as a therapeutic option in Redox diseases**
Harry van Goor, University Medical Center Groningen, The Netherlands
- 13:50 **Myeloperoxidase, oxidative stress, and diseases: can we stop it?**
Semira Galijasevic, Sarajevo Medical School, Bosnia
- 14:10 **Multiresponsive hydrogel flexible sensors for metabolic oxidative stress analytics**
Samuel Mugo, MacEwan University, Canada
- 14:30 **Biological Oxycombustion: Biological fuels and fire extinguishers**
Eric Postaire, Académie des Sciences, France
- 14:50 **Short oral presentations upon abstracts submission** (7 minutes for presentation + 3 minutes for questions)

The effect of Cold Atmospheric Pressure plasma (CAP) on cell migratory behaviors and molecular markers of wound healing machinery

Debarati Shome, Leibniz Institute for Plasma Science and Technology, Germany

Effect of reactive species generated by Cold Atmospheric Plasma on membrane lipids in presence of lipophilic and hydrophilic antioxidants

Mehdi Ravandeh, University of Greifswald, Germany

Advanced Water S-100: a new ionized water for innovative healthcare products

Georges Bouille, Adwatis SA, Switzerland

Upstream of pathology; a new tool to diagnose the oxidative stress

Thierry Berna, SOS Stress Oxydatif Solutions, Switzerland

15:30 Coffee break & poster session

- 16:00 **Selective enhancement of free radicals as a strategy to eliminate tumor cells**
Undurti Das, BioScience Research Centre, India

Short oral presentation selected from Abstracts submission

- 17:00 **Discussion:**
- Do we need to modify Redox Science Terminology: From ROS to Reactive Species Interactome
- Redox 2020: Where is the Next Target

- 17:30 **Concluding remarks: Redox 2019 by**
Harry van Goor, University Medical Center Groningen, The Netherlands

Paris Redox Scientific & Innovation Awards 2019

- 18:00 **End of Paris Redox 2019 Congress**