

INTERNATIONAL SOCIETY OF ANTIOXIDANTS

21<sup>st</sup> ISANH International Conference on

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



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



[www.isanh.net](http://www.isanh.net)

Dear Colleagues,

It is our great pleasure to present you the **21<sup>st</sup> 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:**

- *Redox 2019: Advances, Mechanistic and Perspectives*
- *Oxidative stress, Mitochondria and Microbiota*
- *Oxidative stress implications in diseases*
- *Redox 2019 Innovations*
- *Paris Redox Scientific & Innovation Awards 2019*

**A round table discussion will be organized to discuss:**

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

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



21<sup>st</sup> 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: May 20

Poster presentation: June 7

**Early Bird Registration**

Register & Save Before  
 June 4

**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



**Reactive Sulfide Species: An emerging paradigm in redox biology**

Kenneth R. Olson, Indiana University School of Medicine USA



**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



**Redox and Microbiota: Effects of Antioxidants**

Jamila Faivre, INSERM, Paul-Brousse University Hospital, France



**Lipid Peroxidation & Ferroptosis: Recent advances & Perspective**

Sebastian Doll, Helmholtz Zentrum Münche, Germany



**Redox and Other Metabolic Disorders Associated with Autism**

Richard Frye, Phoenix Children's Hospital, 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



**Hypoxia and iron homeostasis: Recent Advances and perspective**

Carole Peyssonnaud, INSERM, Université Paris Descartes, France



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

Rheinallt M. Jones, Emory 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



**Thiosulfate as a therapeutic option in Redox diseases**

Harry van Goor, University Medical Center Groningen, The Netherlands



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# Paris Redox 2019

## 21<sup>st</sup> International Conference on Oxidative Stress Reduction, Redox Homeostasis & Antioxidants

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

### Agenda

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#### Day 1 - June 20, 2019

**Chairpersons:** Frédéric Batteux, Carsten Culmsee, Pedro Buc Calderon,  
Marvin Edeas, Carole Nicco, Miria Ricchetti, Paul-Henri Romeo, Masayuki Yamamoto

07:45 Welcoming & Registration of Attendees

08:50 Opening of Paris Redox World Conference

*Frédéric Batteux, President of Paris Redox 2019, 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 Coffee Break & Poster Session

11:15 Introduction on the Signaling Pathway & Redox

*Paul-Henri Romeo, University of Paris Diderot, France*

11:20 Keap1-Nrf2 Antioxidative stress response system

*Masayuki Yamamoto, Tohoku University Graduate School of Medicine, Japan*

11:40 Nrf2 in Duchenne muscular dystrophy

*Jozef Dulak, Jagiellonian University, Poland*

12:00 Targeting Nrf2-mediated redox signaling inhibits cancer cells growth in vitro and in vivo

*Venugopal Reddy Bovilla, JSS Academy of higher Education & Research, India*

12:10 Uric acid, a major energy regulator of the cell turning into a killer of pancreatic beta-cells

*Andrew Bahn, University of Otago, New Zealand*

#### 12:30 Lunch break, Exhibition & 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 (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*

**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*

**Genetic variation in glutamate cysteine ligase as a susceptibility factor for Type 2 Diabetes**  
*Iuliia Azarova, Kursk State Medical University, Russia*

**15:30 Coffee Break, Exhibition & Poster Session**

**16:15 Hypoxia and iron homeostasis: Recent Advances and perspective**  
*Carole Peyssonnaud, Inserm, Université Paris Descartes, France*

**16:35 Short oral presentations (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*

**Targeting integrin-linked kinase-mediated oxidative metabolism impairs therapy resistance of quiescent cancer stem cells in BCR-ABL+ Human Leukemia**  
*Xiaoyan Jiang, University of British Columbia, Canada*

**Modulation of diesel exhaust particles-induced oxidative distress and related injury in human umbilical vein endothelial cells by rooibos (*aspalathus linearis*)**  
*Jeanine L Marnewick, Cape Peninsula University of Technology, South Africa*

**Aryl Hydrocarbon Receptor (AHR)-mediated keratinocyte differentiation is dependent on metabolic reprogramming and the production of ROS**  
*Thomas Robert Sutter, University of Memphis, USA*

**QR2 detoxifies quinones in human neuroblastoma cells by cooperation with conjugation enzymes**  
*Monivan Chhour, Laboratoire Pharma-Dev, France*

**Possible mechanisms counteracting age-related intensification of oxidative stress in the mouse brain**  
*Volodymyr I. Lushchak, Precepathian National University, Ukraine*

**Evaluating the effects of antioxidants Vitamin E and N-Acetyl-Cysteine against DNA damage caused by ionizing radiation**  
*Alireza Senejani, University of New Haven, USA*

**Roles of vitamin C and dimethyl sulfoxide combination on electrolytes, inflammation and oxidative stress biomarkers of wistar rats induced with ischemic stroke**  
*Lawal Bilbis, Usmanu Danfodiyo University Sokoto, Nigeria*

**Avermectin suppresses neutrophil extracellular traps formation in carp by inducing demethylation of Pten to inhibit Pi3k/Akt/Raf/Mek/Erk pathway activation and attenuating respiratory burst**  
*Shufang Zheng, Northeast Agricultural University, China*

**Modulation of DNA methylation profile of SRXN1 gene promoter in HT29 cells exposed to catechins of different redox activity**  
*Patrycja Jakubek, Gdańsk University of Technology, Poland*

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

**20:30 Paris Redox 2019 Dinner**

## Day 2 - June 21, 2019

**Chairpersons:** Laurent Chatre, Ludivine Doridot, Sebastian Doll, Richard Frye, Harry van Goor, Rheinallt M. Jones, Oliver Nüsse, Kenneth Olson, Daniel Vaiman

### Session 2: Oxidative stress, 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 **Redox and Microbiota: Effects of Antioxidants**  
*Jamila Faivre, Inserm, Paul-Brousse University Hospital, France*
- 09:30 **Redox and Other Metabolic Disorders Associated with Autism: Strategic role of Butyrate**  
*Richard Frye, Phoenix Children's Hospital, USA*
- 09:50 **Metabolic switches saving mitochondria from oxidative stress**  
*Carsten Culmsee, Center for Mind, Brain and Behavior - CMBB, Germany*
- 10:10 **Dynamic Relationship between the reactive species interactome and bioenergetic metabolism in Brain**  
*Laurent Chatre, CNRS, University of Caen-Normandie, France*
- 10:30 Coffee break, Exhibition & poster session*
- 11:10 **Escherichia Coli mediated resistance of entamoeba histolytica to oxidative stress is triggered by oxaloacetate**  
*Serge Ankri, Technion, Israel*
- 11:20 **Levels of serum free thiols are superior to fecal calprotectin in predicting endoscopic disease activity in inflammatory bowel disease**  
*Arno Rolf Bourgonje, University Medical Center Groningen, The Netherlands*

### Session 3: Oxidative stress implications in diseases

- 11:30 **Lipoic acid for treating multiple sclerosis**  
*Dennis Bourdette, Oregon Health & Science University, USA*
- 11:50 **Recent advances on the neuroprotective role of the novel TLDC proteins against oxidative stress**  
*Mattéa Finelli, University of Oxford, United Kingdom*
- 12:10 **Oxidative Stress & Liver: Strategies and Perspective**  
*Patrick Gonzalez, Inserm, Paul-Brousse University Hospital, France*

*12:30 Lunch break, Exhibition & poster session*

### Session 4 - Redox 2019 Innovation

- 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 Oxycubustion: Biological fuels and fire extinguishers**  
*Eric Postaire, Académie des Sciences, France*



14:50 **Short oral presentations** (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*

**Preventing protein damage in reproductive cells through the inhibition of arachidonate 15-lipoxygenase**

*Elizabeth Grace Bromfield, Utrecht University, The Netherlands*

**Oxidative stress markers in stroke patients: A Clinical study**

*Susana Rey Alonso, Bioquochem SL, Spain*

**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*

**15:40 Coffee break & poster session**

16:00 **Short oral presentations** (7 minutes for presentation + 3 minutes for questions)

**Antioxidant power series (APS) as a tool for rational design and assessment of health promoting properties of functional foods based on antioxidant phytochemicals**

*Agnieszka Bartoszek, Gdansk University of Technology, Poland*

**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*

**Effects of weak static magnetic fields on ROS concentrations and the growth rates of cancer cells and planarian**

*Frank Stephenson Barnes, University of Colorado, USA*

**Dietary inorganic nitrate attenuates hyperoxia-induced oxidative stress in obese type 2 diabetic male rats**

*Asgar Ghasemi, Shahid Beheshti University of Medical Sciences, Iran*

**Addressing glutathione redox status in clinical samples using a novel assay based on two-step alkylation and mass spectrometry**

*Tamara Tomin, Medical University of Graz, Austria*

**Dietary antioxidants, total antioxidant capacity and the risk of diabetes, hypertension and cardiovascular outcomes: a longitudinal population-based study**

*Zahra Bahadoran, Shahid Beheshti University of Medical Sciences, Iran*

**Short oral presentation selected from Abstracts submission**

17:10 **Concluding remarks: Redox 2019**

*Harry van Goor, University Medical Center Groningen, The Netherlands*

**Discussion:** Chair by Oliver Nüsse with the participation of speakers and scientific committee

- *Do we need to modify Redox Science Terminology: From ROS to Reactive Species Interactome?*

- *Redox 2020: Where is the Next Target?*

**Paris Redox Scientific & Innovation Awards 2019**

17:30 **End of Paris Redox 2019 Congress**

Last updated on May 17, 2019