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:

- 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
# PARIS REDOX SPEAKERS

**Redox 2019: Today & Tomorrow**

- Pedro Buc Calderon, University of Louvain, Belgium

**Chemogenetic approaches to dissect redox stress pathways in the cardiovascular system**

- Thomas Michel, Harvard Medical School, USA

**Recent advances on the neuroprotective role of the novel TLD1C protein against oxidative stress**

- Mattea Finelli, University of Oxford, United Kingdom

**Introduction on the Signaling Pathway & Redox**

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

**KEAP1-NRF2 Antioxidative stress response system**

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

**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, Indiana University School of Medicine, USA

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

- Carole Peyssonnaux, INSERM, Université Paris Descartes, France

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

- Andrew Bahn, University of Otago, New Zealand

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

- Rheinalt M. Jones, Emory University School of Medicine, USA

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

- Chantal Houtte, Université Paris Sud, France

**Myeloperoxidase, oxidative stress and diseases: can we stop it**

- Semira Gallijasevic, Sarajevo Medical School, Bosnia

**Metabolic switches saving mitochondria from oxidative stress**

- Carsten Culumse, Philippus-Universitat Marburg, Germany

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

- Christopher Wilcox, Georgetown University, USA

**Redox and Microbiota: Effects of Antioxidants**

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

**Nrf2 in Duchenne muscular dystrophy**

- Jozef Dulak, Jagiellonian University, Poland

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

- Sebastian Doll, Helmholtz Zentrum München, Germany

**Lipoic acid for treating multiple sclerosis**

- Dennis Bourdette, Oregon Health & Science University, USA

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

- Richard Frye, Phoenix Children’s Hospital, USA

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

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

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>07:45</td>
<td>Welcoming &amp; Registration of Attendees</td>
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<tr>
<td>08:20</td>
<td>Opening of Paris Redox World Conference</td>
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<td></td>
<td><strong>Frédéric Batteux</strong>, President of Paris Redox 2019, Institut Cochin - University Paris Descartes, France</td>
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<td><strong>Marvin Edeas</strong>, Chairman of Paris Redox 2019, Institut Cochin - University Paris Descartes, France</td>
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<tr>
<td>08:30</td>
<td>Introduction to Redox 2019: Today &amp; Tomorrow</td>
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<td><strong>Pedro Buc Calderon</strong>, University of Louvain, Belgium</td>
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<tr>
<td>08:50</td>
<td>Honorary Lecture: Reactive Sulfide Species: An emerging paradigm in Redox Biology</td>
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<td><strong>Kenneth R. Olson</strong>, Professor of Physiology at Indiana University School of Medicine - South Bend, USA</td>
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<tr>
<td>10:00</td>
<td><strong>Session 1 – Redox 2019: Advances, Mechanistic and Perspectives</strong></td>
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<td>Chairs: Frédéric Batteux, Marvin Edeas</td>
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<tr>
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<td>Different roles of specific ROS in regulation of myogenic contractions in microarterioles</td>
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<td>Introduction on the Signaling Pathway &amp; Redox</td>
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<td><strong>Paul-Henri Romeo</strong>, University of Paris Diderot, France</td>
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<tr>
<td>10:00</td>
<td>Keap1-Nrf2 Antioxidative stress response system</td>
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<td><strong>Masayuki Yamamoto</strong>, Tohoku University Graduate School of Medicine, Japan</td>
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<td>10:20</td>
<td>Short oral presentations (7 minutes for presentation + 3 minutes for questions)</td>
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<td></td>
<td>Targeting Nrf2-mediated redox signaling inhibits cancer cells growth in vitro and in vivo</td>
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<td><strong>Venugopal R. Bovilla</strong>, JSS Academy of higher Education &amp; Research, India</td>
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<td>PPAR-Gamma activation can improve NRF2–redox regulation, Nitric Oxid-bioavailability and risk biomarkers in hypertension</td>
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<td><strong>Ima Dovinova</strong>, Centre of Experimental Medicine, Slovak Acad Science, Slovak Republic</td>
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<tr>
<td>10:40</td>
<td><strong>10:40 Coffee Break &amp; Poster Session</strong></td>
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<td>Chairs: Paul-Henri Romeo, Masayuki Yamamoto</td>
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<td>Nrf2 in Duchenne muscular dystrophy</td>
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<td>11:55</td>
<td>Ferroptosis, a cell death modality caused by lipid peroxidation</td>
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<td><strong>Sebastian Doll</strong>, Helmholtz Zentrum Münche, Germany</td>
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<td>12:15</td>
<td>Short oral presentations (7 minutes for presentation + 3 minutes for questions)</td>
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<td>HDAC8 is modulated by a redox-switch</td>
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<td><strong>Franz-Josef Meyer-Almes</strong>, University of Applied Sciences Darmstadt, Germany</td>
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<td>12:30</td>
<td><strong>12:30 Lunch break, Exhibition &amp; poster session</strong></td>
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<td>Phagocyte NADPH oxidase, oxidative stress and lipids: anti or pro ageing</td>
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<td><strong>Chantal Houée</strong>, Université Paris Sud, France</td>
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<td>SIRT1 inhibition by peroxynitrite mediates nicotine-induced arterial stiffness in mice</td>
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<td><strong>Ping Song</strong>, Georgia State University, USA</td>
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<td>Nitric oxide regulates protein homeostasis by S-Nitrosylations of the chaperone HSPA8 and the ubiquitin ligase UBE2D</td>
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<td><strong>Irmgard Tegeder</strong>, Goethe-University Hospital, Germany</td>
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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

Effect of high protein diet and feed restriction on oxidative stress parameters in early weaned pigs
Elodie Bacou, DSM, France

Reactive oxygen species formation and coenzyme q reduction level in mitochondria
Karolina Dominia, Adam Mickiewicz University, Poland

15:10 Coffee Break, Exhibition & Poster Session

15:50 Hypoxia and iron homeostasis: Recent Advances and perspective
Carole Peyssonaux, Inserm, Université Paris Descartes, France

16:10 Oxidative stress, signaling pathways and Metabolome: Advances and strategies
Carlos Malpica, Proteigene, France

16:25 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

β-Catenin activated hepatocellular carcinomas are protected against oxidative stress
Mathilde Savall, Cochin Institute, France

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

Activation of endothelial cell-specific mineralocorticoid receptor promotes diastolic dysfunction in western diet fed male mice via enhanced oxidative stress
Guido Lastra Gonzalez, University of Missouri, USA

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
Voledymyr I. Lushchak, Precerpathian 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 via negatively regulating the PI3K-ERK pathway in carp
Shufang Zheng, Northeast Agricultural University, China

Dietary inorganic nitrate attenuates hyperoxia-induced oxidative stress in obese type 2 diabetic male rats
Asghar Ghasemi, Shahid Beheshti University of Medical Sciences, Iran

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

18:40 End of the first day

20:30 Paris Redox 2019 Dinner
Day 2 - June 21, 2019

Session 2: Oxidative stress, Mitochondria and Microbiota

Chairs: Sebastian Doll, Rheinallt M. Jones

08:00 Introduction & Remarks: Mitochondria, Redox and Microbiota
Marvin Edeas, Institut Cochin, Inserm U1610, University Paris Descartes, France

08:20 Commensal microbiota induced redox signaling activates proliferative signals in the intestinal stem cell microenvironment
Rheinallt M. Jones, Emory University School of Medicine, USA

08:40 Redox and Microbiota: Effects of Antioxidants
Jamila Faire, Inserm, Paul-Brousse University Hospital, France

09:00 Redox and Other Metabolic Disorders Associated with Autism: Strategic role of Butyrate
Richard Frye, Phoenix Children's Hospital, USA

09:20 Metabolic switches saving mitochondria from oxidative stress
Carsten Culmsee, Center for Mind, Brain and Behavior - CMBB, Germany

09:40 Dynamic Relationship between the reactive species interactome and bioenergetic metabolism in Brain
Laurent Chatre, CNRS, University of Caen-Normandie, France

10:00 Short oral presentations (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

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

The cytoprotective potential of novel mitochondria-targeted iron chelators against UVA- and Hydrogen Peroxide-Mediated oxidative cell death in Friedreich’s Ataxia fibroblasts
Charareh Pourzand, University of Bath, United Kingdom

10:30 Coffee break, Exhibition & poster session

Session 3: Oxidative stress implications in diseases

Chairs: Richard Frye, Harry van Goor

11:15 Lipoic acid for treating multiple sclerosis
Dennis Bourdette, Oregon Health & Science University, USA

11:35 Recent advances on the neuroprotective role of the novel TLDC proteins against oxidative stress
Mattea Finelli, University of Oxford, United Kingdom

11:55 Oxidative stress and inflammation in liver diseases: state of the issue and promising leads
Patrick Gonzalez, Inserm, Paul-Brousse University Hospital, France

12:15 Short oral presentations (7 minutes for presentation + 3 minutes for questions)

Mitochondrial oxidative stress plays a critical role in the cardiotoxicity of sunitinib
Jamal Boultibir, University hospital Basel, Switzerland

New formulations of melatonin to induce oxidative stress and cell death xenografts of head and neck cancer cells
Laura Martinez Ruiz, University of Granada, Spain

12:35 Lunch break, Exhibition & poster session

Session 4 - Redox 2019 Innovation

Chairs: Kenneth Olson, Daniel Vaiman

13:00 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 Galljasevic, Sarajevo School of Science and technology, Sarajevo Medical School, Bosnia
14:10 Biological Oxycombustion: Biological fuels and fire extinguishers  
_Eric Postaire, Académie des Sciences, France_

14:30 Multiresponsive hydrogel flexible sensors for metabolic oxidative stress analytics  
_Samuel Mugo, MacEwan University, Canada_

14:50 **Short oral presentations** (7 minutes for presentation + 3 minutes for questions)

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, Adwals SA, Switzerland_

Upstream of pathology; a new tool to diagnose the oxidative stress  
_Thierry Berna, SOS Stress Oxydelf Solutions, Switzerland_

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

Chairs: Laurent Chatre, Ludivine Doridot

16:10 **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  
_Deborati 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_

Mitoprotection by next generation antioxidant carbon nanomaterials: Direct evidence for support of electron transfer  
_Thomas Kent, Texas A&M University, USA_

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_

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_

17:10 **Concluding remarks: Redox 2019**  
_Harry van Goor, University Medical Center Groningen, The Netherlands_

_**Discussion:** Chaired 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 June 7, 2019