20th ISANH International Conference on Oxidative Stress, Redox Homeostasis & Antioxidants

Paris Redox 2018

Final Agenda

June 25-26, 2018 | Université Pierre et Marie Curie, Paris, France

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Dear Colleagues,

It is our great pleasure to present you the 20th International Conference on Oxidative Stress Reduction, Redox Homeostasis and Antioxidants - Paris Redox 2018 – which will be organized at University Pierre et Marie Curie, Paris, France in June 25-26, 2018.

Paris Redox 2018 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. During Paris Redox World Congress 2018, we will again 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.

Among the strategic topics which will be discussed during ISANH Redox 2018:

- Oxidative Stress & Redox 2018: Recent advances and perspectives
- Reactive Oxygen Species, Reactive Sulfide Species, Reactive Nitrogen Species and Redox Regulation-Modulation
- Oxidative Stress & Chronic Diseases: Neurodegenerative Diseases, Fertility, Cancer, Metabolic Syndrome, Pulmonary Diseases, Skin and others.
- Oxidative Stress, New Bio-sensors & Biomarkers: Imaging of Oxidative Stress in 2018
  - Special highlight on non-invasive methods
- Redox medicine & Innovations

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 2018

Prof. Marvin Edeas
Institut Cochin, Inserm U1016, University Paris Descartes, France
Chairman of Paris Redox 2018 Scientific Committee
Université Pierre et Marie Curie - June 25 - 26, 2018 - Paris, France

Paris Redox 2018: Introduction
Frédéric Batteux
Institut Cochin, Université Paris Descartes, France

Proteome S-sulfhydration and Hydrogen Sulfide (H2S) homeostasis in bacterial pathogens
David Giedroc
Indiana University Bloomington, USA

Significance and regulation of the extracellular thiol redox status
Martin Feelisch
University of Southampton, United Kingdom

Redox status in diabetic conditions: effects of SGLT2 inhibition
Harry van Goor
University Medical Center Groningen, The Netherlands

Interaction of sulfide with cellular bioenergetics a first/last step in redox signaling?
Frédéric Bouillaud
Institut Cochin, INSERM, France

Dietary antioxidant capacity and risk of type 2 diabetes
Francesca Mancini
Institut Gustave Roussy, France

Oxidative stress & pulmonary diseases: recent advances & perspectives
Anh Tuan Dinh-Xuan
Cochin Hospital, France

Interplay between reactive oxygen and nitrogen species in cancer cell fate determination
Shazib Pervez
National University of Singapore, Singapore

Oxidative stress, antioxidant genes and satellite cells in muscle regeneration: cross-talks with microRNAs
Jozef Dulak
Jagiellonian University, Poland

Ethylene, an early marker of systemic inflammation in humans
Laurent Paardekooper
Radboud University Nijmegen, The Netherlands

Redox metabolism of Hydrogen Sulfide (H2S) and Reactive Sulfide Species (RSS): Emerging concepts in cell signaling and therapeutic applications
Kenneth Olson
Indiana University School of Medicine, USA

Redox 2018 Hot topics
Carole Nicco
Institut Cochin, Inserm U1016-CNRS, France

Peroxisiredoxin 6 is essential for the antioxidant protection of human spermatozoa
Cristian O’Flaherty
McGill University, Canada

Generation of oxidative stress as an anticancer therapeutic strategy
Meng-Er Huang
Institut Curie, France

A 3D model of the regulatory subunits of the NADPH oxidase: implications for the design of NADPH oxidase inhibitors
Oliver Nüsse
University Paris-Sud, France

In vivo Reactive Oxygen Species imaging for complex pathology monitoring: use of nanomaterials
Antigoni Alexandrou
Ecole Polytechnique, France

Role of bacterial antioxidant defense in their resistance to bactericidal antibiotics
A. C. Matin
Stanford University School of Medicine, USA

Novel mechanistic links of oxidative stress, mitochondrial damage and regulated cell death
Corsten Cülsow
Philips-Universität Marburg, Germany

The yin and yang effects of low doses of irradiation on hematopoietic stem cells
Paul-Henri Romeo
Université Paris-Diderot, France
Paris Redox 2018

20th International Conference on
Oxidative Stress Reduction, Redox Homeostasis & Antioxidants
June 25-26, 2018
Université Pierre & Marie Curie, Paris, France

Agenda

Day 1 - June 25, 2018

07:45  Welcoming & Registration of Attendees

08:50  Opening of Paris Redox World Conference
      Frédéric Batteux, President of Paris Redox 2018, Institut Cochin, France
      Marvin Edeas, Chairman of Scientific Committee, Institut Cochin, France

Session 1: Oxidative Stress & Redox 2018
Recent Scientific Advances & Perspectives

Chairs: Frédéric Batteux, Marvin Edeas

09:00  Novel mechanistic links of oxidative stress, mitochondrial damage and regulated cell death
      Carsten Culmsee, Philipps-Universität Marburg, Germany

09:25  Role of bacterial antioxidant defense in their resistance to bactericidal antibiotics
      A. C. Matin, Stanford University School of Medicine, USA

09:50  Oxidative stress, antioxidant genes and satellite cells in muscle regeneration: cross-talks with microRNAs
      Jozef Dulak, Jagiellonian University, Poland

10:15  Coffee Break & Poster Session

Session 2: ROS, RSS, RNS and Redox Regulation-Modulation

Chair: Carsten Culmsee

10:55  Redox Metabolism of Hydrogen Sulfide (H2S) and Reactive Sulfide Species (RSS): Emerging concepts in cell signaling and therapeutic applications
      Kenneth Olson, Indiana University School of Medicine, USA

11:20  Proteome S-sulfhydration and hydrogen sulfide (H2S) homeostasis in bacterial pathogens
      David Giedroc, Indiana University Bloomington, USA

11:45  Significance and regulation of the extracellular thiol redox status
      Martin Feelisch, University of Southampton, United Kingdom
12:10  **Short oral presentations** (7 minutes for presentation + 3 minutes for questions)

- **NOSH-aspirin** a chimera that releases NO and H2S modulates redox-sensitive signaling pathways in cancer cells  
  *Khosrow Kashfi*, City University of New York School of Medicine, USA

- **Advanced glycation endproducts as indicator of cardiovascular risk in recent onset psychosis**  
  *Julie Hagen*, Academic Medical Center, The Netherlands

- **Iron overload is implicated in pathological retina**  
  *Emilie Picard*, Sorbonne Université, France

- **ICP-MS-based study of intracellular iron pool**  
  *Tobias Konz*, Nestlé Institute of Health Sciences, Switzerland

**12:50 Lunch break & poster session**

Chair: Kenneth Olson

14:00  **Interaction of sulfide with cellular bioenergetics a first/last step in redox signaling?**  
  *Frédéric Bouillaud*, Institut Cochin, INSERM, France

14:25  **Interplay between Reactive Oxygen and Nitrogen Species in cancer cell fate determination**  
  *Shazib Pervaiz*, National University of Singapore, Singapore

14:50  **Generation of oxidative stress as an anticancer therapeutic strategy**  
  *Meng-Er Huang*, Institut Curie, France

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

- **Reactive Sulfur Species sensing in *Acinetobacter Baumannii***  
  *Christopher Dietrich*, Indiana University, USA

- **Hydrogen Sulphide protects against endotoxin-induced endothelial oxidative stress and dysfunction**  
  *Bastiaan Stefan Star*, University Medical Center Groningen, The Netherlands

- **Tellurium doped gold nanoclusters for imaging peroxynitrite in brain microdialysate following global cerebral ischemia/reperfusion**  
  *Anwei Zhu*, East China Normal University, People’s Republic of China

**15:45 Coffee Break & Poster Session**

Chairs: Carole Nicco, Miria Ricchetti

16:25  **Naked mole rat cells display more efficient DNA excision repair than mouse cells**  
  *Olga Lavrik*, Institute of Chemical Biology and Fundamental Medicine, Russian Federation

- **The novel TLDC proteins are neuroprotective against oxidative stress through modulation of the function of antioxidant and glycolytic enzymes**  
  *Mattea J. Finelli*, University of Oxford, United Kingdom

- **LXRS protect schwann cells from oxidative insults**  
  *Julien Grenier*, Paris Descartes University, France

- **Hibernating mitochondria: a mechanism for stress resistance?**  
  *Koen Hendrinks*, University of Groningen, The Netherlands

- **Oxidative stress and macrophage memory**  
  *Ludivine Doridot*, Institut Cochin, France
Selenite ameliorates arsenite-induced cytotoxicity in PC12 cells via modulating apoptosis  
**Mostafizur Rahman**, Hokkaido University, Japan  

The antioxidant responses of neuronal cells against bilirubin-induced oxidative stress  
**Cristina Bellarosa**, Fondazione Italiana Fegato ONLUS, Italy  

New tetradequate ligands as potential copper regulators for Alzheimer’s disease  
**Anne Robert**, CNRS, France  

A quercetin oxidation product that occurs naturally in onion peel protects cells against oxidative damage at nanomolar concentrations  
**Hernan Speisky**, University of Chile, Chile  

Triplet excited carbonyls and singlet oxygen in photon emission from skin  
**Ankush Prasad**, Palacky University, Czech Republic  

Biochemical consequences of complex I deficiency  
**Mesfer Al Shahrani**, University College London, United Kingdom  

ALDH2 silencing induces oxidative stress and mitochondrial dysfunction in endothelial cells  
**Erika Terzuoli**, University of Siena, Italy  

Can we reduce ROS in various diseases?  
**Haruhiko Inufusa**, Gifu University, Japan  

18:35  End of the first day  

20:00  Paris Redox 2018 Dinner at Sofitel Paris Le Faubourg  
15, rue Boissy d'Anglas, 75008 Paris  

*If you would like to participate, please register online before June 22.*
Day 2 - June 26, 2018

08:25 Opening of the second day

Session 3: Oxidative Stress & Chronic Diseases
Recent Scientific Advances & Perspectives

Chairs: Pedro Buc Calderon, Daniel Vaiman

08:30 Redox status in diabetic conditions: effects of SGLT2 inhibition
Harry van Goor, University Medical Center Groningen, The Netherlands

08:55 Dietary antioxidant capacity and risk of type 2 diabetes
Francesca Mancini, Institut Gustave Roussy, France

09:20 The yin and yang effects of low doses of irradiation on hematopoietic stem cells
Paul-Henri Romeo, Université Paris-Diderot, France

09:45 Introductory remarks: Oxidative/nitrosative stress in the pathological placentas: lessons from animal and cell models
Daniel Vaiman, Institut Cochin, France

09:55 Peroxiredoxin 6 is essential for the antioxidant protection of human spermatozoa
Cristian O’Flaherty, McGill University, Canada

10:20 Coffee Break & Poster Session

Chairs: Shazib Pervaiz, Harry van Goor

11:00 Short oral presentations upon abstracts submission (7 minutes for presentation + 3 minutes for questions)

Oxidative stress & pulmonary diseases: recent advances & perspectives
Anh Tuan Dinh-Xuan, Cochin Hospital, France

NADPH oxidase derived ROS in diabetic complications
Karin Agnes Maria Jandeleit-Dahm, Monash University, Australia

Date seeds polyphenols and their antioxidant effect in human after acute consumption
Carine Platat, United Arab Emirates University, United Arab Emirates

Cellular redox status as a key determinant in health and disease – perspectives on interactions of carcinogens, polyphenols and fatty acids
Wentzel Christoffel Andreas Gelderblom, Cape Peninsula University of Technology, South Africa

A cell-penetrant manganese superoxide dismutase (MnSOD) mimic is able to complement MnSOD and exerts an anti-inflammatory effect on cellular and animal models of inflammatory bowel diseases
Clotilde Policar, Ecole Normale Supérieure, France

Effect of omega-3 polyunsaturated fatty acids EPA and DHA on oxidative stress in Duchenne and Becker muscular dystrophy
Tomas Almeida, Centro Médico Nacional Siglo XXI, Mexico

Mitochondrial function of prostate cancer
Dale Hamilton, Houston Methodist Hospital, USA

Investigation of redox status in different skin models
Anja Elpelt, Freie Universität Berlin, Germany
Phytate decreases formation of Advanced Glycation End-products in patients with type II diabetes: randomized crossover trial
_Pilar Sanchis_, Son Llatzer Hospital, Spain

Gum arabic as a potential anti-oxidant agent in hemodialysis patients
_Noor Elkhair_, Almughtaribeen University, Sudan

Quantitation of oxidative stress; problems, controversies and perspectives
_Dov Lichtenberg_, Tel Aviv University, Israel

Quantitation of peroxynitrite production by macrophages
_Yakov Y. Woldman_, Valdosta State University, USA

13:00 Lunch break & poster session

Session 4: Redox Medicine & Innovations

Chairs: Ludivine Doridot, Oliver Nüsse

14:00 Ethylene, an early marker of systemic inflammation in humans
_Laurent Paardekooper_, Radboud University Nijmegen, The Netherlands

14:25 A 3D model of the regulatory subunits of the NADPH oxidase implications for the design of NADPH oxidase inhibitors
_Oliver Nüsse_, University Paris-Sud, France

14:50 In vivo Reactive Oxygen Species imaging for complex pathology monitoring: use of nanoparticules
_Antigoni Alexandrou_, Ecole Polytechnique, France

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

Salivary methionine sulfoxide as a marker for oxidative stress
_Michael Hellwig_, TU Dresden, Germany

Antioxidant carbon clusters nanomaterials support mitochondrial electron transport through an ideal redox potential pattern
_Thomas Kent_, Texas A&M Health Science Center, USA

Development of in vivo analytical methods for understanding the processes of oxidative stress
_Yang Tian_, East China Normal University, People’s Republic of China

Application of electron paramagnetic resonance spectroscopy to clinical studies: monitoring of vascular redox status in patients with cardiovascular risk factors.
_Irina Lobysheva_, Université Catholique de Louvain, Belgium

15:55 Coffee Break & Poster Session

16:15 Concluding remarks: Redox 2018: Now and tomorrow
_Kenneth Olson_, Indiana University School of Medicine, USA

Paris Redox Awards 2018

16:45 End of Paris Redox 2018 Conference