

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



INTERNATIONAL SOCIETY
OF
ANTIOXIDANTS



UNIVERSITÉ
PARIS
DESCARTES



Inserm

Institut national
de la santé et de la recherche médicale

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WELCOME NOTE

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 Pervaiz
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



Peroxiredoxin 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 nanoparticles

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

Carsten Culmsee
Philipps-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
Mattéa 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 Hendriks, 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 tetradentate 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 Plataf, 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, Almuhtaribeen 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 nanoparticles

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