International Society of Antioxidants

17th International Conference on

Oxidative Stress Reduction, Redox Homeostasis & Antioxidants

June 13-15, 2016
Institut Pasteur, Paris

Agenda

WELCOME NOTE

It is with great pleasure to announce the organization of the **17th International Conference on Oxidative Stress Reduction, Redox Homeostasis and Antioxidants,** to be held at **Institut Pasteur in Paris**, from **June 13** to **15, 2016.**

During Paris Redox World Congress 2016, we will discuss the role of antioxidants as modulators of redox signaling pathways rather than players that counter act oxidative stress. Antioxidants affect cells signaling provided by redox processes. Mitochondria constitute localized signaling domains and produce reactive oxygen species, ROS (i.e. superoxide and hydrogen peroxide), which are signaling molecules generated by the respiratory chain.
We will also focus on understanding the mechanisms by which cells respond to oxidative stress and prevent cell damage and cell death, with a particular interest in neurons and neurological conditions, stroke, Alzheimer's disease, kidney, muscle, and liver pathologies. Additionally, the mechanisms of redox regulation of cellular processes will be discussed.
Little is known on the specific targets of ROS and how oxidant and antioxidant signals are transmitted in the cell. 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.
We will also highlight oxidative stress evaluation and discuss the recent advances on biomarkers, related to redox alteration.

The aim of Paris Redox 2016 is to contribute to a better understanding of redox control in physiological and pathological states that will lead to new therapeutic and disease-preventive agents.

Among strategic topics discussed during ISANH Redox 2016:

- Oxidative Stress, Redox Regulation & Modulation and Redox-Active Agents
- Oxidative Stress & Biomarkers: Imaging of Oxidative Stress
- Oxidative Stress & Stem Cells
- Beneficial effects of Oxidative Stress vs deleterious effects of antioxidants
- New Players in Redox balance
- Oxidative Stress, Ageing & Longevity: Where are we now?
- Oxidative Stress & Chronic Diseases: From Predictive to Preventive Medicine
- Oxidative Stress, Antioxidants & Innovations

With this exciting program, we wish to meet you in Paris next June.

Marvin Edeas – Chairman of the Scientific Committee
Miria Ricchetti – Chairperson of the Local Organizing Committee

17th International Conference on

Oxidative Stress Reduction, Redox Homeostasis & Antioxidants

June 13-15, 2016
Institut Pasteur, France

07:45 **Welcoming & registration of attendees**

08:55 **Opening of Paris Redox World Conference**
Marvin Edeas, Miria Ricchetti, Chairpersons, France

Day 1 - June 13, 2016

Session 1: Oxidative Stress, Ageing & Stem cells

09:00 **Keynote Lecture: Mitochondrial dysfunction and longevity in animals: Untangling the knot**
Siegfried Hekimi, McGill University, Canada

09:30 **Stem cell regenerative decline with aging: role of oxidative stress**
Pura Muñoz-Cánoves, ICREA and Pompeu Fabra University, Spain

09:55 **Stem cells and oxidative stress in age related muscle loss (sarcopenia)**
Marco Sandri, University of Padova, Italy

Session 2: Redox Regulation, Redox-Active Agents & Oxidative Stress Evaluation

10:20 **A case of mistaken identity: are Reactive Oxygen Species actually reactive sulfide species?**
Kenneth R. Olson, Indiana University School of Medicine, USA

10:45 Coffee break & posters session

11:15 **Nox Inhibitors: from first-in-class Nox2ds-tat to a Peptidic Nox1 & small molecule NOX2i's - Challenges & perspectives**
Patrick J. Pagano, University of Pittsburgh Pennsylvania, USA

11:40 **Deciphering the function of the STOX1 protein in the management of oxidative stress in trophoblast cells**
Daniel Vaiman, INSERM, France

12:05 **Secondary reactive oxygen species production in sera of patients with resectable non-squamous cell lung cancers**
Partial oxygen atmospheric pressure influences the occurrence of berry aneurysm disruption.
Thierry Patrice, CHU de Nantes, France

12:30 Lunch break & posters session

14:00 **The complexity of ROS detection in harsh environments such as the phagosome**
Oliver Nüsse, Laboratoire de Chimie Physique, France

14:25 **Exhaled nitric oxide as predictor marker of interstitial lung disease and fibrosis**
Thong Hua-Huy, Cochin University Hospital, France

14:50 **Short oral presentations – Among the presentations selected (7min + 3min discussion):**

Improvement of oxidative stress reverses dysfunctions of human visceral adipose-derived stem cells
Shigeki Sugii, Duke-NUS Graduate Medical School, Singapore

Redox status of the human trophoblast during first trimester of pregnancy
Isabelle Hernandez, INSERM, France

Evaluation of peroxidation stress in cells using electrochemical peroxidation and real-time headspace selected ion flow tube mass spectrometry
Violetta Shestivska, J. Heyrovsky Institute of Physical Chemistry of the CAS, Czech Republic

Brain oxidative stress in suicidality and other-directed aggressivity: identification of the NADPH oxidase NOX2 as a novel biomarker
Stefania Schiavone, University of Foggia, Italy

Redox sensitive proteins: novel oxidative modifications and structural regulations
Kong-Joo Lee, Ewha Womans University, Korea

Oxidative stress as biomarker of piglet health at weaning
Arnaud Buchet, PEGASE, Agrocampus Ouest, INRA, France

15:50 Coffee break & one-hour posters session

16:50 **N-acetyl ornithine deacetylase is a moonlighting protein and is involved in the adaptation of Entamoeba histolytica to nitrosative stress**
Serge Ankri, Faculty of Medicine-Technion, Israel

Synergistic application of tea extract and lactic acid bacterial fermentation in enhancing bioavailability and anti-oxidative effectiveness of tea flavonoids in vitro and in vivo.
Danyue Zhao, The University of Hong Kong, China

What do we really know about HNO reactivity? Implications for its fluorescence imaging in vivo
Renata Smulik, Lodz University of Technology, Poland

Quantitation of nitric oxide in cell culture by luciferin-luciferase chemiluminescence
Yakov Woldman, Valdosta State University, USA

Restauration of copper homeostasis in Alzheimer disease
Anne Robert, CNRS, France

Preventing oxidative reactions during red blood cell storage for transfusion
Aline Roch, University of Geneva, Switzerland

NADPH Oxidase-induced oxidative stress enhances VEGF synthesis under hyperglycemic condition in ARPE-19 cells
Rashidul Haque, Emory University, United States

Autologous activation of anti-stress gene functions in humans
Victor Semenkov, Pirogov Rassian National Research Medical University, Russia

18:10 **End of the First Day**

Day 2 - June 14, 2016

08:00 **Welcoming & registration of attendees**

Session 3: Oxidative Stress, Redox Regulation and Cancer

08:30 **On the role of ROS and antioxidants in tumor initiation and progression**
Martin Bergö, Karolinska Institute, Sweden

08:55 **Antidiabetic therapy, antioxidants and tumor initiation**
Hui Wang, Third Military Medical University, China

09:20 **NQO1 overexpression modulates breast cancer cell sensitivity to quinone-based chemotherapeutic agents**
Pedro Buc Calderon, Université catholique de Louvain, Belgium

09:45 **The chicken or the egg question of oxidative and endoplasmic reticulum stresses in cancer therapy**
Mikhail Nikiforov, Roswell Park Cancer Institute, USA

10:10 **Dimethyl fumarate controls the DJ-1/NRF2 axis in cancer cells: therapeutic applications**
Nathaniel Saidu, INSERM, France

10:35 Coffee break & one-hour posters session

11:30 **ROS deficiency as disease risk**
Ulla Knaus, University College Dublin, Ireland

11:55 **Response to antioxidant therapy: impact of the nitroso-redox balance in restoring proteases and mitochondrial function in a progeroid disease**
Laurent Chatre, Institut Pasteur, Paris

12:10 **Short oral presentations – Among the presentations selected (7min + 3min discussion):**

Oxidative signaling in organellar homeostatic mechanisms
Avihai Danon, Weizmann Institute of Science, Israel

Quantitative analysis of the regulatory circuits underlying antioxidant response and proliferation of ovarian cancer cells to understand and inform treatment design
Yahaya Yusuf Deeni, Abertay University, United Kingdom

Effect of vitamin D3 supplementation on metal and redox homeostasis in hormon treated prostate cancer patients
Krisztina Süle, Hungarian Academy of Natural Sciences, Hungary

12:40 Lunch break & posters session

Session 4: Skin Oxidative Stress & Redox Homeostasis

14:00 **Cutaneous oxidative stress induced by pollution (particulate matter) and its aggravation by environmental ultraviolets (UV)**
Laurent Marrot, L'Oréal R&D, France

14:25 **Skin redox balance maintenance: The need for an Nrf2-activator delivery system**
Maya Ben-Yehuda Greenwald, The Hebrew University of Jerusalem, Israel

14:50 **Skin anti-ageing and systemic redox effects of supplementation with marine collagen peptides and plant-derived antioxidants**
Liudmila G. Korkina, Centre of Innovative Biotechnological Investigations, Russia

15:15 **Cutaneous free radical induction by sunlight in different spectral regions and counteraction by systemically or topical applied antioxidants**
Martina Meinke, Charité - Universitätsmedizin Berlin, Germany

15:40 Coffee break & one-hour posters session

16:30 **The pantethine/vanin pathway controls ROS-induced skin fibrosis**
Niloufar Kavian, INSERM, France

16:55 **Short Oral Presentations upon abstracts submission**

Oxidative stress & plaque psoriasis
Maria Costantino, FIRSTermae, Italy

Overexpression of heterogeneous nuclear ribonucleoprotein F (HnRNP F) prevents oxidative stress and kidney injury in diabetic mice
John Chan, Centre de Recherche-CHUM, Canada

Blue-light dependent ROS formation by cryptochrome may represent a novel signaling mechanism
Margaret Ahmad, University of Paris VI, France

A new tomato hybrid to fight UVA-induced (ultraviolet) oxidative stress
Daria Maria Monti, University of Naples Federico II, Italy

p38MAPK is suppressed in acute myeloid leukemia
Paul Hole, Cardiff University, United Kingdom

A sub-population of primary acute myeloid leukemia blasts shows resistance to oxidative stress and reduced p38MAPK activation
Richard Darley, Cardiff University, United Kingdom

Pro-apoptotic phytochemicals inhibit cell proliferation and promote oxidation of the typical 2-Cys peroxiredoxin proteins in Jurkat T-lymphoma cells
Ann Kathryn Schuller, Flinders University, Australia

A new family of antioxidant proteins: antioxidant properties of the chloride intracellular ion channel protein, CLIC1
Stella Valenzuela, University of Technology Sydney, Autralia

ROS increases glycolysis in acute myeloid leukaemia via overexpression of PFKFB3
Andy Robinson, Cardiff University, United Kingdom

Human alpha-thrombin binds to and potently inhibits leukocyte myeloperoxidase: a novel biochemical link between inflammation and coagulation
Vincenzo De Filippis, University of Padova, Italy

18:15 **End of Second Day**

20:00 **Dinner in a French Typical Restaurant**
If you would like to participate, please register online directly on website.

Day 3 - June 15, 2016

08:25 **Opening of the third day**

Session 5: Oxidative Stress & Chronic Diseases: From Predictive to Preventive & Therapeutic Medicine

08:30 **Peroxisome proliferation: an anti-oxidant defense against noise-induced hearing loss**
Christine Petit, Institut Pasteur, France

08:55 **Oxidative stress, sarcopenia, antioxidant strategies and exercise: molecular aspects**
Thomas Brioche, Université de Montpellier, France

09:20 **Pre-clinical evidences that antioxidant supplementation corrects sperm DNA oxidative damage and improves reproductive success**
Joël Drevet, Clermont Université, France

09:45 **Reactive oxygen-related diseases: therapeutic targets and emerging clinical indications**
Harald Schmidt, Maastricht University, The Netherlands

10:10 Coffee break & one-hour posters session

11:10 **Acute, chronic lung diseases and oxidative stress: targeting respiratory infections, COPD and viral-induced exacerbations of COPD**
Ross Vlahos, RMIT University, Australia

11:35 **Physiological glycation by methylglyoxal and prevention by glyoxalase 1 - involvement in disease mechanisms and development of glyoxalase 1 inducer therapeutics**
Paul Thornalley, University of Warwick, United Kingdom

Session 6: Oxidative Stress, Antioxidants & Innovations

12:00 **Nano-antioxidants for the treatment of neurodegenerative disorders**
Rajat Sandhir, Panjab University, India

12:25 **Antioxidant systems in brain astrocytes: sources of cysteine for glutathione**
Gethin McBean, University College Dublin, Ireland

12:50 Lunch break & posters session

14:00 **Controlling ROS in platinium-induced peripheral neuropathy: therapeutic applications**
Olivier Cerles, INSERM, Paris

14:25 **Short oral presentations – Among the presentations selected (7min + 3min discussion):**

The effects of Metformin on mitochondrial function in granulose-cumulus cells
Haim Yaakov Bentov, University of Toronto, Canada

Mitochondrial deacetylation is an activating signal mediated by sirtuin 3 for metabolism-secretion coupling in pancreatic beta cells
Umberto De Marchi, Nestlé Institute of Health Sciences, Switzerland

Oxidative stress and cerebral cavernous malformation disease: from pathogenic mechanisms to preventive and therapeutic approaches
Saverio Francesco Retta, University of Torino, Italy

Protandim treatment causes reversible nuclear translocation of Nrf-2 and activation of the antioxidant response element
Nathalie Chevreau, LifeVantage Corp., United States

Protective effects of Quercetin and SRT1720 against D-Galactosamine/Lipopolysaccharide-induced hepatotoxicity; Role of Sirtuin 1 modulation
Mighty Kemelo, Charles University in Prague and General University Hospital in Prague, Czech Republic

15:15 Lunch break & posters session

15:45 **Role of mitoNEET in the control of cellular iron homeostasis, a novel drug target for mitochondrial dysfunction**
Cécile Bouton, Centre National de la Recherche Scientifique-Institut de Chimie des Substances Naturelles, France

TNF-alpha promotes mouse astrocytes microvesicules release through raised glutaminase
Jialin Zheng, Tongji University School of Medicine, China

Do glycation end products in infant formula contribute to long term oxidative stress?
Latifa Abdennebi-Najar, Institut Polytechnique LaSalle Beauvais, France

16:25 **Closing Keynote Lecture**

16:40 **Concluding Remarks by Marvin Edeas & Miria Ricchetti**

17:00 **End of ISANH Paris Redox Conference**