

08:00 Welcoming of Attendees

Day 1 - June 22, 2015

Oxidative Stress Evaluation & Biomarkers: Recent Advances & Recommendations

Chaired by *Oliver Nüsse, Thierry Patrice*
José Ángel Rufián-Henares, Paul Thornalley (from 08:55 to 12:55)

08:55 Opening of Oxidative Stress & Antioxidants World Conference

Marvin Edeas, Miria Ricchetti, Chairpersons, France

Oxidative Stress, Antioxidants & Biomarkers: Where is the Golden Standard? (25 + 5 minutes)

Marvin Edeas, Chairman of ISANH, France

09:30 Evaluation of Antioxidants Activity & Oxidative Stress: Towards a ISANH Standard (25 + 5 minutes)

Why we failed with other methods: A Critical Point of View

José Ángel Rufián-Henares, Departamento de Nutrición y Bromatología Facultad de Farmacia, Spain

Oxidative Stress, Antioxidants & Human Studies

10:00 Oxidative stress Evaluation in Human Clinic: A New Method (25 + 5 minutes)

Thierry Patrice, CHU Nantes, France

10:30 Coffee Break

11:00 Salivary Oxidative Status in Patients with Oral Lichen Planus (10 + 5 minutes)

Palina Vyhouskaya, Jagiellonian University, Poland

Redox State Visualization & Imaging

11:15 Visualization of Local Redox State in Cells: Its Application to Biology and Drug Screening (25 + 5 minutes)

Yasuyoshi Sakai, Kyoto University, Japan

11:45 Screening Antioxidant Activators of Nrf2 - Have we been Misreading the Signals? (25 + 5 minutes)

Frequency modulated translocational oscillations of Nrf2 regulate the antioxidant response element cytoprotective transcriptional response

Paul Thornalley, University of Warwick, United Kingdom

12:15 Discussion

12:30 Lunch Break

Chaired by *Laurent Chatre, Meng-Er Huang, Yasuyoshi Sakai*
(from 14:00 to 17:00)

14:00 Neuroimaging Biomarkers of Oxidative Stress in Brain Aging and Injury (25 + 5 minutes)

Janna L. Harris, University of Kansas Medical Center, USA

Exhaled Breath Condensate

14:30 Assessment of Oxidative Stress Biomarkers in Exhaled Breath Condensate in Veterinary Medicine (25 + 5 minutes)

Pietro Celi, University of Sydney, Australia

Oxidative Stress Biomarkers & Biosensors

15:00 Redox-Sensitive GFP and YFP Sensors for Monitoring Nuclear Redox Dynamics (25 + 5 minutes)

Meng-Er Huang, CNRS - Institut Curie, France

15:30 Coffee Break

- 16:00 New Biosensors for Spatio-Temporal Detection of Phagosomal ROS Production (25 + 5 minutes)**
Laurent Nault, Université Paris Sud, France
- 16:30 Deciphering Additional Properties of a Compound that Affects Mitochondrial Function and Oxidative Stress (10 + 5 minutes)**
Laurent Chatre, Institut Pasteur, France
- 16:45 DMPD (N,N-Dimethyl-p-Phenylene Diamine) on Nafion Membrane as an Oxidative Stress Biomarker and Colorimetric Antioxidant Sensor (10 + 5 minutes)**
Mustafa Resat Apak, Istanbul University, Turkey

Comet Assays

- 17:00 Comet Assays: Recent Advances & Recommendations (25 + 5 minutes)**
Towards a standardization of DNA damage biomarker assay for human biomonitoring
Monica Neri, IRCCS San Raffaele Pisans, Italy
- 17:30 Validation of an Automated Method for Measurement of Oxidative Stress Biomarkers in Serum (25 + 5 minutes)**
Eugene Jansen, National Institute for Public Health and the Environment, The Netherlands
- 18:00 Round Table Discussion**
What are the Best & Adequate Methods to Evaluate Oxidative Stress & Antioxidants in vitro vs in vivo & in Humans?
New Generation of Oxidative Stress Biomarkers from Exhaled Breath Condensate
Chronicle Diseases & Oxidative Stress Signature
ISANH Platform to Evaluate Oxidative Stress & Mitochondrial Dysfunction: Towards a ISANH Standard

With the participation of Marvin Edeas, Miria Ricchetti, José Ángel Rufián-Henares, Thierry Patrice, Dimitros Tsikas, Yasuyoshi Sakai, Paul Thornalley, Pietro Celi, Meng-Er Huang, Laurent Chatre, Monica Neri

Each speaker will provide critics and comments about the best methods of oxidative stress & antioxidants evaluations.

18:30 End of the First Day

14:30 – 18:30 Registrations for Days 2 & 3

Installation of Posters



**15th International Conference on
Oxidative Stress Reduction, Redox Homeostasis & Antioxidants
Institut Pasteur, France**

Day 2 - June 23, 2015

07:45 Welcoming & Registration of Attendees

08:25 Opening of Oxidative Stress & Antioxidants World Conference

Marvin Edeas, Miria Ricchetti, Chairpersons, France

Introduction Note - Oxidative Stress & Antioxidants: What's next?

Marvin Edeas, Chairman of ISANH, France

09:00 Is Oxidative Protein Damage the Root Cause of Aging and Age-Related Diseases?

Miroslav Radman, INSERM, France

**Session 1 - Oxidative Stress, Redox Regulation-Modulation and Mechanistics
Chaired by Pedro Buc Calderon & Miria Ricchetti**

09:30 Antioxidants vs Pathologies: Pros and Cons (15 + 5 minutes)

Per Lindahl, University of Gothenburg, Sweden

09:50 Regulation of Catalase Expression in Cancer Cells (15 + 5 minutes)

Pedro Buc Calderon, Louvain University, Belgium

10:10 A Novel Mechanism Controlling Transition between Good and Bad ROS in Cancer Cells (10 + 5 minutes)

Mikhail Nikiforov, Roswell Park Cancer Institute, USA

10:25 Coffee Break & Posters Session

10:55 The Effect of Redox Modulation on Immune, Inflammatory & Metabolic Pathways in Diseases (15 + 5 minutes)

Jon Piganelli, Children's Hospital of Pittsburgh of UPMC, USA

11:15 Oxidative Stress & Metastatic Process: Recent Advances and Strategies (15 + 5 minutes)

Thierry Tchénio, LBPA, France

11:35 SUMO: A (Oxidative) Stressed Sensor Protein in Neurodegenerative Diseases (15 + 5 minutes)

Marco Feligioni, EBRI, Italy

11:55 Peroxisomes and Redox Homeostasis: Recent Advances in Adrenoleukodystrophy and Therapeutic Strategies (15 + 5 minutes)

Stéphane Savary, Université de Bourgogne, France

12:15 Progress and Emerging Challenges: Hmox1 in the Spotlight (15 + 5 minutes)

Gabor Czibik, Université Paris Est, France

12:35 Lunch Break & Posters Session

Chaired by Jon Piganelli, Stéphane Savary, Thierry Tchénio

14:00 Strategies to Modulate Oxidative Stress: Nutritional Approaches vs Extracellular Vesicles (15 + 5 minutes)

Ramaroson Andriantsitohaina, INSERM, France

14:20 Short Oral Presentations (5 + 2 minutes)

Ambient Ultrafine Particles Increase Reactive Oxygen Species Formation in Quiescent Human Monocytic Cells
Arezoo Campbell, University of California, USA

Inflammation-Responsive Antioxidant Polymeric Prodrug Nanoparticles
Dongwon Lee Chonbuk, National University, Korea

Oxidative Stress and Repairing Mechanisms Associated with Air Pollution
Marie-Abèle Bind, Harvard University, USA

Influenza Virus Replication in Lung Epithelial Cells Depends on Redox-Sensitive Pathways Activated by Nox4-Derived ROS
Donatella Amatore, "Sapienza" University of Rome, Italy

Modulation of Reactive Oxygen Species Production by Integrin-Linked Kinase
Lina Dagnino, The University of Western Ontario, Canada

Activation of the Kynurenine Pathway Leads to Reactive Oxygen Species-Mediated Apoptosis of Human Retinal Endothelial Cells: Implications for Diabetic Retinopathy
Ram Nagaraj, University of Colorado, USA

NADPH Oxidase DUOX1 Promotes Long-Term Persistence of Oxidative Stress after an Exposure to Irradiation
Rabii Ameziane El Hassani, Institut Gustave Roussy, France

Thiol-Reactive Peptidomimetic sk053 Targets Dimeric Peroxiredoxins in Human Lymphoma Cell Lines
Malgorzata Firczuk, Medical University of Warsaw, Poland

Are Vitamin Supplements Good for Healthy Aging?
Eugene Jansen, National Institute for Public Health and the Environment, The Netherlands

The Effect the "Poisonous" Beta-Carotene and the "Wholesome" Vitamin E on DNA Adduct Formation
Guido R. Haenen, Maastricht University, The Netherlands

15:35 Coffee Break & Posters Session

Session 2 - Oxidative Stress Evaluation
Chaired by Tony Kong & Yasuyoshi Sakai

16:20 Oxidative Stress Serum Markers and Mortality – Pooled Results from four Population-Based Cohort Studies (15 + 5 minutes)
Ben Schöttker, German Cancer Research Center, Germany

16:40 Age-Related Changes on DNA Damage and Repair Activity in Humans: Effects of Physical Exercise Training and Oxidative Stress (15 + 5 minutes)
Jorge Soares, CIDESD, UTAD, Portugal

17:00 How can we evaluate physiological" redox state? (7+ 3 minutes)
Yasuyoshi Sakai, Kyoto University, Japan

17:10 Nrf2 Modulation: Myth or Reality? (15 + 5 minutes)
Tony Kong, Rutgers, The State University of New Jersey, USA

17:30 The Nrf2/HO-1 Axis as a Therapeutic Target against Oxidative Stress and Inflammation (15 + 5 minutes)
Roberta Foresti, INSERM, Université Paris-Est, France

17:50 Short Oral Presentations (5 + 2 minutes)

Nrf2-mediated Antioxidant Response: Implications for the Prevention of Fetal Alcohol Spectrum Disorders
Shao-yu Chen, University of Louisville Health Sciences Center, USA

Redox Regulation of the Type II Diabetes-Associated Protein MitoNEET
Huangen Ding, Louisiana State University, USA

Regulation of Hematopoiesis by Myeloid Cell-Derived Reactive Oxygen Species
Hongbo Luo, Harvard Medical School and Children's Hospital Boston, USA

Influence of Lipids on ROS Production by NADPH Oxidase
Rawand Massoud, Université Paris Sud, France

Gamma Glutamyl Transferase (GGT) Activity: An Early Predictor of Metabolic and Oxidative Risk Markers in Apparently Healthy Young Adults
Jumana Saleh, Sultan Qaboos University, Oman

Biochemical & Molecular Studies of the Oxidative Stress and Antioxidant Capacity in Saudi Women with Recurrent Miscarriage
Mourad Aboul-Soud, King Saud University, King Saudi Arabia

Regulation of Age-Related Hypertension by Modulation of *in Vivo* Redox
Kumuda C. Das, Texas Tech University Health Sciences, USA

Reaction Dynamics of Carotenoids as Antioxidant
Rui-min Han, Renmin University of China, China

Mushrooms as an Exciting and Innovative Source of Natural Antioxidants: The Case of the Oyster Basidiomycete Pleurotus Ostreatus
Joaquín Humberto Morris, University of Oriente, Cuba

Antioxidative Functions of Natural Pigments on Gastric Ulcer and Cancer
Hyo-Ihl Chang, Korea University Anam-Dong, Korea

Genetic Variations in the Oxidative Stress Related Genes are Associated with Pulmonary Complications in Community-Acquired Pneumonia

Lyubov E. Salnikova, Russian Academy of Sciences, Russia

19:15 End of Second Day

20:30 Dinner in a French Typical Restaurant

If you would like to participate, please register online directly on website.

Day 3 - June 24, 2015

08:25 Opening of the Third Day

Session 3 - Oxidative Stress, Ageing & Longevity

Chaired by Frédéric Batteux & Marvin Edeas

08:30 **A Novel Paradigm for Oxidative and Nitrosative Stress in a Precocious Aging Syndrome (15 + 5 minutes)**

Miria Ricchetti, Institut Pasteur, France

08:50 **Nrf2 Activation by Resveratrol Protects Skin against Acute Oxidative Stress, through Glutathione Mobilization (15 + 5 minutes)**

Laurent Marrot, L'Oréal, France

09:10 **Short Oral Presentations (5 + 2 minutes)**

Mitochondrial Activations in Pancreatic Beta-Cells: Ca²⁺- and Redox- Dependent Signal Transduction

Umberto De Marchi, Nestlé Institute of Health Science, Switzerland

Epigenetic Regulation of Redox Enzyme System

Jayasri Nanduri, The University of Chicago, USA

High Dose Resveratrol in Human Subjects over 84 Days: Implications on Plasma Levels of Resveratrol

Jeremy J. Johnson, University of Illinois, USA

Antioxidant Activity of Cocoa Stem Cells Extract for Extrinsic and Intrinsic Cytoprotection

Corinne Reymermier, BASF Beauty Care Solutions, France

Interleukin33 is Critical for Controlling Tissue Oxidative Stress and Aging through Regulation of Disposal of Unwanted Cells

Yahuan Lou, University of Texas Health Science Center, USA

Oxidative DNA Damage Induced by Blood Pressure-Regulating Hormones and Possible Strategies for Prevention

Nicole Schupp, University of Düsseldorf, Germany

Clinical Applicability of Thioredoxin-Albumin Fusion Protein for Oxidative Stress Related Diseases

Masaki Otagiri, Sojo University, Australia

Oxidative Stress and the Aging Eye

Julie Lim, University of Auckland, New Zealand

Maintenance of Glutathione Homeostasis in the Eye – Is the Lens a Reservoir of Glutathione?

Ankita Umapathy, University of Auckland, New Zealand

Novel Use of a Superoxide Radical Dismutating Agents as a Therapeutic Approach to Hamper the Progression of Parkinson's Disease

Marco Bisaglia, University of Padova, Italy

10:20 Coffee Break & Posters Session

Session 4 - Oxidative Stress & Chronic Diseases: Innovations in Predictive & Preventive Medicine

Chaired by Bernard Fromenty & Thierry Lèveillard

- 11:05 **Depression, Oxidative Stress & Biomarkers: Strategies & Perspectives** (15 + 5 minutes)
Catherine Black, VU University Medical Center, The Netherlands
- 11:25 **Membrane Proteins as Redox Hubs in the Brain** (15 + 5 minutes)
Hajjeva Parvana, Johannes Gutenberg University, Germany
- 11:45 **Role of Reactive Oxygen Species in the Pathophysiology and Treatment of Systemic Sclerosis** (15 + 5 minutes)
Frédéric Batteux, Université Paris Descartes, France
- 12:05 **Role of Oxidative Stress in Liver Injury Induced by Drugs and other Xenobiotics** (15 + 5 minutes)
Bernard Fromenty, INSERM, Université de Rennes, France
- 12:25 **Xanthohumol Improved Neuro-Inflammation Process and Dysfunction of Synaptic Plasticity in the Brain of Female Senescence Accelerated Mouse** (5 + 2 minutes)
Roman Kireev, University Complutense of Madrid, Spain

12:30 Lunch Break & Posters Session

Chaired by Laurent Marrot, Oliver Nüsse, Meng-Er Huang & Mikhail Nikiforov

- 13:45 **Oxidative Stress-Related Mechanisms Affecting Response to Aspirin in Diabetes Mellitus** (15 + 5 minutes)
Francesca Santilli, D'Annunzio University Center of Excellence of Aging, Italy
- 14:05 **The Truncated Thioredoxin Rod-derived Cone Viability Factor induces Cone Survival by Stimulating Aerobic Glycolysis** (15 + 5 minutes)
Thierry Léveillard, INSERM, France
- 14:25 **Antioxidant Supplementation in Farm Animals: Opportunities and Challenges** (15 + 5 minutes)
Pietro Celi, University of Sydney, Australia
- 14:45 **Short Oral Presentations** (5 + 2 minutes)
- N-Acetylcysteine (NAC) in Huntington's Disease (HD) and Affective-Like Disorders**
Thibault Renoir, University of Melbourne, Australia
- Biodisponibility Study of an Innovative Orobuccal Formulation of Glutathione**
Daniela Buonocore, University of Pavia, Italy
- Glutathionylated Proteins Released in Inflammation and Infection**
Paola Checconi, Sapienza University of Rome, Italy
- Antioxidant Therapy in Inducible Mild Colitis in Rats: Does N-Acetyl-Cysteine and Lipoic Acid Work?**
Marilia O.F. Goulart, Instituto de Química e Biotecnologia, Universidade Federal de Alagoas, Brazil

15:15 Coffee Break

- 15:35 **Closing Keynote Lectures & Discussion: Research & Clinical Overviews**
Miroslav Radman, INSERM, France
Frédéric Batteux, Université Paris Descartes, France
- 16:05 **Concluding Remarks & Awards by Marvin Edeas & Miria Ricchetti**
- 16:30 **End of ISANH Antioxidants Conference**