

INTERNATIONAL SOCIETY OF ANTIOXIDANTS

23rd International Conference on
Oxidative Stress Reduction, Redox Homeostasis & Antioxidants

PARIS REDOX 2021

October 13-15, 2021 - Interactive Online Congress

**LIVE
SESSIONS**



www.isanh.net

Paris Redox 2021

23rd International Conference on Oxidative Stress, Redox Homeostasis & Antioxidants 2021

October 13-15, 2021 – Interactive Online Congress

We are pleased to announce the organization of the 23rd International Conference on Oxidative Stress Reduction, Redox Homeostasis & Antioxidants "Paris Redox 2021" which will be held on October 13-15, 2021 as an Interactive Online Congress with Live Sessions.

Last year, History and I presume that many books will be written about that year. For ISANH, it was the first time in 22 years that we could not get together in Paris for our Annual Meeting. After an extensive discussion among the scientific and organizing committees, we decided to organize our 22nd World Congress, Paris Redox 2020, as an online meeting only. During the meeting all registered attendees had unlimited access to the platform whenever they wished at any time. To our pleasant surprise, we had many participants from all continents and having a meeting online was received extremely well. The possibility to look at talks more than once and interact with speakers in the App was used by many participants. The meeting was definitely rising above our expectations.

In the upcoming meeting, we will discuss Redox signaling as a wide spectrum that means that submissions on reactive oxygen species, reactive nitrogen species and reactive sulfur species are very much welcome. In our opinion the inclusion of multiple reactive species as driving forces of redox signaling will significantly broaden our scope. As may be clear from the literature, lifestyle, diet and the microbiome are becoming driving forces in the modulation of the Redox status. Clinical and experimental approaches in that field are subjects we would like to discuss. Other clinical and animal studies which aim at the modulation of the Redox status and means to measure that will be the subject of many talks in the meeting. To further elucidate the multiple mechanisms of redox control in oxidative stress-related pathologies and aging, we also welcome data on the identification and dissection of the function of the key players in reactive species-related redox processes.

Paris Redox 2021 will surely make an eminent contribution to a better understanding of the reactive species-induced redox control in physiological conditions and various pathologies. This will lead to new therapeutic and disease-preventive agents. We therefore invite you to submit papers on reactive species related to health and disease ranging from fundamental and technical aspects to experimental and clinical diseases.

Among the Topics which will be discussed during the three-day congress:

- Redox 2021: Recent Advances & Perspective
- Brain, Neurodegenerative Diseases and Redox
- Gut, Microbiome and Redox: Focus on Covid-19 Infections
- Ageing & Telomeres 2021: Advances and Perspective
- Redox Medicine: Innovations & Clinical Studies

Let us together make the 2021 Paris Redox meeting a resounding success. All our warmest regards.



Prof. Harry van Goor

President of ISANH

Department of Pathology and Medical Biology, University Medical Center
Groningen, The Netherlands

23rd International Conference on

OXIDATIVE STRESS REDUCTION, REDOX HOMEOSTASIS AND ANTIOXIDANTS

Two Live Interactive Sessions & Discussion

October 13-15, 2021 - Online Interactive Congress

Paris Redox 2021 Speakers



The Reactive Species Interactome: What's new ?
Laurent Chatre, ISTCT, CNRS, Université de Caen-Normandie, France



Raising the 'Good' Oxidants for Immune Protection
Ulla Knaus, University College Dublin, Ireland



Redox-Modulating Agents in the Treatment of Viral Infections
Lucia Nencioni, "Sapienza" University of Rome, Italy



Maintenance of ER Homeostasis through Redox Regulation
Ryo Ushioda, Kyoto Sangyo University, Japan



Telomere Length and Cardiovascular Diseases
Nihal Inandiklioğlu, Yozgat Bozok University, Turkey



H2S Targets Mitochondrial Bioenergetics and Induces Metabolic Remodeling
Ruma Banerjee, University of Michigan Medical School, USA



Targeting Autophagy to Counteract Obesity-Associated Oxidative Stress
Federico Pietrocchi, Karolinska Institute, Sweden



The Anti-inflammatory Effects of Nrf2 Activation
Albena T. Dinkova-Kostova, Jacqui Wood Cancer Centre, United Kingdom



Determinants of Telomere Length Across Human Tissues
Brandon L. Pierce, The University of Chicago, USA



The Impact of Oxidative DNA Damage and Stress on Telomere Homeostasis
Patricia L. Oprea, University of Pittsburgh Public Health & UPMC Hillman Cancer Center, USA



Decreased Availability of Nitric Oxide and Hydrogen Sulfide is a Hallmark of COVID-19
Gopi Kolluru, Louisiana State University Health Sciences Center-Shreveport, USA



Impact of dietary fructose on Brain Mitochondria and Oxidative Stress
Luisa Cigliano, University of Naples Federico II, Italy



New Methods to Evaluate Telomeres
Nedime Serakinci, Turkish Republic of Northern Cyprus Presidency, Turkey



Peroxiredoxin Promotes Longevity and H2O2-Resistance in Yeast through Redox-Modulation of Protein Kinase A
Mikael Molin, Chalmers University of Technology, Sweden



Redox Regulation in Acetaminophen-Induced Acute Liver Damage
Jun Lu, The Southwest University, China



Oxidative Stress as Key Player in Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) Infection
Livan Delgado Roche, Laboratorios LioMont, Mexico



Redox and Progeria: Advances and Perspective
Ricardo Villa-Bellosta, University of Santiago de Compostela, Spain



Prediction of Survival Odds in COVID-19 by Zinc, Age and Selenoprotein P as Composite Biomarker
Lutz Schomburg, Institut für Exper. Endokrinologie, Germany



Skeletal Muscle Redox Signaling in Rheumatoid Arthritis
Johanna T. Lanner, Karolinska Institute, Sweden



Targeting the BACH1-NRF2 Axis
Laureano de la Vega, School of Medicine, University of Dundee, United Kingdom



Redox Clockworks: The Importance of Time
Akhilesh B. Reddy, University of Pennsylvania, USA



COVID-19: Immunopathology, Pathophysiological Mechanisms, and Treatment Options
Larissa Van Eijk, University Medical Center Groningen, The Netherlands



Beneficial and Detrimental Effects of Reactive Oxygen Species on Lifespan
Jeremy Van Raamsdonk, McGill University, Montreal, Canada



Potential Roles of Redox Dysregulation in the Development of Schizophrenia
Diana O. Perkins, University of North Carolina, USA



Redox Medicine & Ferroptosis
Brent Stockwell, Columbia University, USA



Ferrous Iron-Dependent Pharmacology
Adam R. Renslo, University of California, USA



Targeting transcription factor NRF2 in Neurodegenerative Diseases
Antonio Cuadrado, Universidad Autonoma de Madrid, Spain



N-acetylcysteine (NAC) and Hydrogen Sulfide (H2S): A Convenient Rationale for Coronavirus Disease 2019 (COVID-19)?
Arno Bourgonje, University Medical Center Groningen, The Netherlands



Physiological Roles of 3-mercaptopyruvate sulfurtransferase in the Cardiovascular System
Andreas Papapetropoulos, National and Kapodistrian University of Athens, Greece



Red Blood Cells as a "Central Hub" for Sulfide Bioactivity: Scavenging, Metabolism, Transport, and Cross-Talk with Nitric Oxide
Miriam Margherita Cortese-Krott, Heinrich Heine University Düsseldorf, Germany



Harnessing The UVA-Induced Redox Active Labile Iron Release to Improve the Efficiency of 5-Aminolevulinic Acid-Based Photodynamic Therapy (ALA-PDT) of Skin Cancer
Charareh Pourzand, University of Bath, United Kingdom



Cofilin1 Oxidation Links Oxidative Distress to Mitochondrial Demise and Neuronal Cell Death
Carsten Culmsee, Center for Mind, Brain and Behavior, Germany



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Oxidative Stress, Redox Homeostasis & Antioxidants 2021
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Redox Workshop

Wednesday, October 13, 2021

How to Evaluate Oxidative Stress & Antioxidants Activities

14h00 – 18h00
Live Redox Workshop



Ginette Deby-Dupont, University of Liège, Centre for Oxygen, Research & Development (CORD), Liege, Belgium

Among the sessions which will be addressed:

- *Present the latest advances and perspectives on oxidative stress and antioxidants*
- *Present all methods used to evaluate Oxidative Stress & Antioxidants Activities in different matrices and models*
- *Discuss the different methods of measuring oxidative stress in humans and present the controversies related to these methods*

Monitoring of Antioxidant/Oxidant Activity: Electrochemical Methods, Some History, Challenges and Underwater Rocks

Khiena Brainina, Ural State University of Economics, Russia

Full agenda and information, please follow this link.

Workshop Agenda

17h30 – 18h00 Paris Time

Interactive Live Discussion & Networking

Thursday, October 14, 2021

– Day One –



9h00: Introduction Remarks

Harry van Goor, President of ISANH, University Medical Center, Groningen, the Netherlands

Session 1 – Redox 2021: Recent Advances & Perspectives

09:05 am
Recorded



Maintenance of Endoplasmic Reticulum Homeostasis through Redox regulation

Ryo Ushioda, Kyoto Sangyo University, Japan

09:30 am
Recorded



The Reactive Species Interactome: What's New?

Laurent Chatre, ISTCT, CNRS, Université de Caen-Normandie, France

09:55 am



Metabolic Remodeling via Mitochondrial Bioenergetic Perturbation

Ruma Banerjee, University of Michigan Medical School, USA

10:20 am

Coffee Break

10:30 am
Live



Skeletal Muscle Redox Signaling in Rheumatoid Arthritis

Johanna T. Lanner, Karolinska Institute, Sweden

10:55 am



Red Blood Cells as a "Central Hub" for Sulfide Bioactivity: Scavenging, Metabolism, Transport, and Cross-Talk with Nitric Oxide

Miriam Margherita Cortese-Krott, Heinrich Heine University Düsseldorf, Germany

11:20 am
Recorded



Physiological Roles of 3-Mercaptopyruvate Sulfurtransferase in the Cardiovascular System

Andreas Papapetropoulos, National and Kapodistrian University of Athens, Greece

11:45 am



Redox Regulation in Acetaminophen-induced Acute Liver Damage

Jun Lu, Southwest University, China

12:10 pm

Lunch Break

Session 2 – Brain, Neurodegenerative Diseases and Redox

12:25 pm



Targeting Transcription Factor Nrf2 in Neurodegenerative Diseases
Antonio Cuadrado, Universidad Autonoma de Madrid, Spain

12:50 pm



Potential Roles of Redox Dysregulation in the Development of Schizophrenia
Diana O. Perkins, University of North Carolina, USA

01:15 pm
Live



Impact of Dietary Fructose on Brain Mitochondria and Oxidative Stress
Luisa Cigliano, University of Naples Federico II, Italy

01:40 pm
Live



Cofilin1 Oxidation Links Oxidative Distress to Mitochondrial Demise and Neuronal Cell Death
Carsten Culmsee, Center for Mind, Brain and Behavior, Germany

02:05 pm
Recorded



Targeting the BACH1-Nrf2 Axis
Laureano de la Vega, University of Dundee, United Kingdom

02:30 pm

Coffee Break

02:40 pm – 07:30 pm

Short Oral Presentations

Oxidative State of Protein Disulfide Isomerase Regulates Mitochondrial Function
Zhi-wei Ye, Medical University of South Carolina, USA

Mitochondrial Dysfunction in a Drosophila Model of Amyotrophic Lateral Sclerosis
Yuliya Nemtsova, Brown University, USA

Mitochondrial Contact Site and Cristae Organizing System Is Important for the Regulation of Heme Synthesis and Redox Control
Oleh Khalimonchuk, University of Nebraska-Lincoln, USA

Organismal and Cellular Stress Responses to Disruption of Mitochondrial LONP1 Protease
Eirini Taouktsi, Biomedical Research Foundation of the Academy of Athens, Greece

Restoring of Redox Homeostasis, Metabolic Adaption, and Longevity: Implications for Understanding the Effects of *Cimicifuga racemosa* Extract Ze 450 on Cellular Resilience to Oxidative Stress
Madeline Günther, University of Marburg, Germany

Diabetes-Mediated IL-17A-IL-17R Signaling in Photoreceptors Enhance Oxidative Stress and the Onset of Diabetic Retinopathy
Patricia R Taylor, Case Western Reserve University School of Medicine, USA

Impact of Repetitive Gas Plasma Stress on Head and Neck Cancer Cells
Julia Berner, Leibniz Institute for Plasma Science and Technology, Germany

Ferroptosis Among Cancer Cell Death Modalities Induced by Photodynamic Treatment

Irina V. Balalaeva, Lobachevsky University, Russian Federation

The Role of CRISPR/Cas9-Mediated Drp1 Knockout in Ferroptosis

Stephan Tang, University of Marburg, Germany

Defeat Cancer with Oxidative Stress Generated by Photodynamic Therapy

Lígia C. Gomes-Da-Silva, Universidade de Coimbra, Portugal

Dissecting Nrf2 Responses to Endogenous and Exogenous Oxidative Stress Using Reporter Mice

Francisco Inesta, University of Dundee, United Kingdom

Overexpression of Skeletal Muscle Nrf2 Protects Against Aging-Associated Dysfunction in Skeletal Muscle and Heart

Lie Gao, University of Nebraska Medical Center, USA

Cytotoxicity and Oxidative Stress of Amitraz and Its Metabolites in HEPG2 Cells

Mercedes Taroncher Ruiz, University of Valencia, Spain

Oxidative Stress in Menopausal Women with Insomnia

Natalya Victorovna Semenova, Scientific Centre for Family Health and Human Reproduction Problems, Russia

Oxidative Stress Markers: New Prospective in Inflammatory Bowel Diseases

Laura Cianfruglia, Polytechnic University of Marche, Italy

Study of Oxidative Stress Under the True Oxygenation of the Skin, Physioxia

Nadira Chettouh Hammas, CNRS, France

Reverting Mitochondrial Impairment in Skin Fibroblasts from Parkinson's Disease Patients by Using a Mitochondria-Targeted Antioxidant AntiOxCIN₄

Cláudia M. Deus, Center for Neuroscience and Cell Biology, Portugal

Vitamin K2: A Promising Antioxidative Regimen for Neurodegenerative Disease Prevention

Shruti Shandilya, Aalto University, Finland

Dynamic of Telomere Length Change in Two Groups of Patients (Acute Myocardial Infarction and Haemodialysis Patients) and Relation with Redox Status

Jelena Kotur-Stevuljević, University of Belgrade, Serbia

Investigation of Premature Cellular Senescence in Pre-Eclampsia and Intrauterine Growth Restriction

Samprakta Manna, University College Cork, Ireland

Valproic Acid Modulates Redox and Nitric Oxide Status in Mouse Embryos

Osama Elsallabi, University "G. D'Annunzio", Chieti Pescara, Italy

Advanced Oxidation Protein Products (AOPP) And Coronary Calcifications in Chronic Hemodialysis Patients

Leila Azouaou Toulbi, University of Algiers 1, Algeria

Poster Presentations

Assessment of Systemic and Placental Oxidative Stress: A Pilot Study in Preeclampsia

Anca Bina, "Victor Babeş" University of Medicine and Pharmacy, Romania

Neuroprotective Activity and Absence of in Vitro and in Vivo Toxicity of Borage Flowers

Guillermo Cásedas, Universidad San Jorge, Spain

Antioxidant Activity of Yellow Pea Protein Isolate Nutralys® S85F

Aouatif Chentouf, Roquette Frères, France

Nd-13, a Jd-1 Derived Peptide, as a Novel Pharmacological Approach to Prevent Renal Inflammasome Activation under Pro-Oxidant Conditions

Santiago Cuevas, Biomedical Research Institute of Murcia, Spain

Analysis of the Differential Activity and Expression Profile Analysis of Antioxidant Peroxidase Enzymes in the Erythrocyte Membrane and Cytosol Fractions in Childhood Obesity

Francisco Manuel Visiedo Garcia, Instituto de Investigación e innovación Biomédica de Cádiz, Spain

Inflammaging of Young People Antioxidants Diet Therapy Sport

Marina Alexandra Lepioshkina, Aesthetic Physician, Italy

Plasma Activity of Antioxidant Enzymes Induced by Maximal Exercise in Young Men of Various Body Composition

Mateusz Mardyla, University of Physical Education, Krakow, Poland

Translocation of Chloroplast NPR1 to the Nucleus in Retrograde Signaling in Response to Abiotic Stress

Ky Young Park, Sunchon National University, South Korea

Correlation Between Oxidative Stress Markers and Cytokine Profile in Patients with Severe Covid-19

Marija Petrushevska, Faculty of Medicine, North Macedonia

Metformin Mitigates Monoamine Oxidase-Related Cardiac Oxidative Stress in Rats with Diet-Induced Obesity

Adrian Sturza, "Victor Babeş" University of Medicine and Pharmacy, Romania

Metabolic Profiles of Astrocytes and Neurons in Normoxic and Hypoxic Conditions

Rutt Taba, National Institute of Chemical Physics and Biophysics, Estonia

Lack of Correlation Between Superoxide Dismutase, Glutathione Peroxidase and Insulin Resistance in Patients with Chronic Hepatitis

Dimitar Penchev Terziev, Medical University Plovdiv, Bulgaria

Lactate Supplementation Mitigates Obesity in High-Fat Diet-Fed Mice

Nikola Vrzáčková, University of Chemistry and Technology, Czech Republic

Blood Plasma's Protective Ability against the Degradation of S-Nitrosoglutathione Under the Influence of Air-Pollution-Derived Metal Ions in Patients with Exacerbation of Heart Failure and Coronary Artery Disease

Anna Wądołek, Jagiellonian University, Poland

Scopoletin and Umbelliferone Protect Hepatocytes Against Palmitat and Bile Acid-Induced Cell Death by Reducing Endoplasmic Reticulum Stress and Oxidative Stress

Zongmei Wu, University of Groningen, Netherlands

Inhibition of Mitochondrial Metabolism Leads to Selective Eradication of Cells Adapted to Acidic Microenvironment

Jaroslav Zelenka, University of Chemistry and Technology, Czech Republic

3:30 pm – 5:30 pm Paris time

Chairpersons: Harry van Goor, Marvin Edeas, Carole Nicco, Ginette Deby-Dupont,
Laurent Chatre, Carlsen Culmsee, Miriam Cortese-Krott

Interactive Live Discussion & Networking of Day 1

Dedicated to Questions & Networking with All Speakers

End of Day 1

Friday, October 15, 2021

– Day Two –

Welcome note by the Scientific committee

Session 3 – Gut Microbiome & Redox in Covid-19 Infections

08:30 am
Live



COVID-19: Immunopathology, Pathophysiological Mechanisms, and Treatment Options

Larissa Van Eijk, University Medical Center Groningen, the Netherlands

08:55 am
Recorded



Oxidative Stress as Key Player in Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) Infection

Livan Delgado Roche, Laboratorios Liomont, Mexico

09:20 am



Decreased Availability of Nitric Oxide and Hydrogen Sulfide is a Hallmark of COVID-19

Gopi Kolluru, Louisiana State University Health Sciences Center-Shreveport, USA

09:45 am
Recorded



Prediction of Survival Odds in COVID-19 by Zinc, Age and Selenoprotein P as Composite Biomarker

Lutz Schomburg, Charité-Universitäts Medizin, Germany

10:10 am
Recorded



N-acetylcysteine (NAC) and Hydrogen Sulfide (H₂S): A Convenient Rationale for Coronavirus Disease 2019 (COVID-19)?

Arno Bourgonje, University Medical Center Groningen, The Netherlands

10:35 am

Coffee Break

Session 4 – Ageing & Telomeres 2021: Advances and Perspective

10:40 am
Live



New Methods to Evaluate Telomeres

Nedime Serakinci, Special Health Adviser, Turkish Republic of Northern Cyprus Presidency, Cyprus

11:05 am
Recorded



The Impact of Oxidative DNA Damage and Stress on Telomere Homeostasis

Patricia L. Opresko, University of Pittsburgh Graduate School of Public Health & UPMC Hillman Cancer Center, USA

11:30 am
Recorded



Beneficial and Detrimental Effects of Reactive Oxygen Species on Lifespan
Jeremy Van Raamsdonk, McGill University, Montreal, Canada

11:55 am

Lunch Break

12:10 pm
Recorded



Telomere Length and Cardiovascular Diseases
Nihal Inandiklioğlu, Yozgat Bozok University, Turkey

12:35 pm
Recorded



Determinants of Telomere Length across Human Tissues
Brandon L. Pierce, the University of Chicago, USA

01:00 pm
Recorded



Redox Clockworks: The Importance of Time
Akhilesh B Reddy, University of Pennsylvania, USA

01:25 pm



Peroxiredoxin Promotes Longevity and H₂O₂-Resistance in Yeast through Redox-Modulation of Protein Kinase A
Mikael Molin, Division of Systems Biology, Chalmers University of Technology, Sweden

01:50 pm
Recorded



Redox and Progeria: Advances and Perspective
Ricardo Villa-Bellosta, University of Santiago de Compostela, Spain

Session 5 – Redox Medicine: Innovations & Clinical Studies

02:15 pm
Recorded



Raising the 'Good' Oxidants for Immune Protection
Ulla Knaus, University College Dublin, Ireland

02:40 pm
Recorded



Redox-Modulating Agents in the Treatment of Viral Infections
Lucia Nencioni, "Sapienza" University of Rome, Italy

03:05 pm
Live



Redox Medicine and Ferroptosis
Brent R Stockwell, Columbia University, USA

03:30 pm
Recorded



Harnessing the UVA-Induced Redox Active Labile Iron Release to Improve the Efficiency of 5-Aminolevulinic Acid-Based Photodynamic Therapy (ALA-PDT) of Skin Cancer
Charareh Pourzand, University of Bath, United Kingdom

03:55 pm
Live



The Anti-inflammatory Effects of Nrf2 Activation

Alben T. Dinkova-Kostova, *University of Dundee & Ninewells Hospital & Medical School, United Kingdom*

04:20 pm
Live



Targeting Autophagy to Counteract Obesity-Associated Oxidative Stress

Federico Pietrocola, *Karolinska Institute, Department of Biosciences and Nutrition, Sweden*

04:45 pm
Live



Ferrous Iron-Dependent Pharmacology: Recent Advances & Perspectives

Adam R Renslo, *University of California, USA*

5:00 pm – 7:00 pm Paris time

Live Concluding Remarks by Laurent Chatre, *ISTCT, CNRS, Université de Caen-Normandie, France*

Chairpersons: Harry van Goor, Marvin Edeas, Carole Nicco, Ginette Deby-Dupont, Joumana Saleh, Oliver Nüsse, Charareh Pourzand

Interactive Live Discussion & Networking of Day 2

Dedicated to Questions & Networking with All Speakers

Paris Redox Awards & End of Paris Redox 2021