

22nd International Conference on

**Oxidative Stress Reduction,
Redox Homeostasis & Antioxidants**

PARIS REDOX 2020

October 8-9, 2020

VIRTUAL CONGRESS



INTERNATIONAL SOCIETY
— OF —
ANTIOXIDANTS
IN NUTRITION & HEALTH

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Dear Colleagues,

It is our great pleasure to present you the **22nd International Conference on Oxidative Stress Reduction, Redox Homeostasis and Antioxidants - Paris Redox 2020** – which will be organized as **Virtual Congress**, on October 8-9, 2020.

I am honored to serve as your new President for the upcoming Paris Redox World Congress 2020. Hereby I will also express my gratitude to professor Frédéric Batteux for his excellent leadership in the past years. In the upcoming meeting, we will discuss Redox signaling in the light of the Redox Signaling Interactome (RSI) implicating a role for reactive oxygen species, reactive nitrogen species and reactive sulfur species in the modulation of redox signaling pathways. The inclusion of multiple reactive species as driving forces of redox signaling will significantly broaden our scope. Abstracts on mechanisms by which cells respond to RSI stress and thereby prevent structural and functional damage and death are welcomed to a great extent. We also aim to highlight downstream biochemical alterations induced by RSI stress and evaluate recent advances on disease biomarkers, related to RSI alterations. To further elucidate the various mechanisms of redox control in oxidative stress-related pathologies and aging, we welcome data on the identification and dissection of the function of the key players in reactive species-related redox processes.

Paris Redox 2020 will make an important contribution to a better understanding of RSI-induced redox control in physiological and pathological conditions that will lead to novel therapeutic and disease-preventive agents. Clinical studies in the field are therefore of eminent importance.

In response to the critical situation and evolution of the COVID-19, the organizing Committee decided to organize Paris Redox 2020 as a **Virtual Congress**.

If you cannot attend in-person or virtual due to the restriction and time zone difference, you can access on-demand videos to this entire event, including synced audio/video and slides, access to the exhibit hall, and a poster session.

Among the strategic topics which will be discussed:

- *COVID-19 & Oxidative Stress*
- *Redox 2020: Recent Advances & Perspectives*
- *Oxidative stress, Microbiota Diversity, Mitochondria, Redox and Inflammation*
- *Reactive Species Interactome Evaluation*
- *Redox & Fasting 2020*
- *Paris Redox Scientific & Innovation Awards 2020*

For this year, we are organizing a workshop dedicated to **How to Evaluate Oxidative Stress & Antioxidants Activities?** which will be held on October 7, 2020. For more info, please [follow this link](#).

We invite you to submit papers on reactive oxygen species, reactive nitrogen species and reactive sulfur species related to health and disease ranging from fundamental and technical aspects to experimental and clinical diseases.

We look forward to meeting you for this exciting program in October.

Prof. Harry van Goor

President of ISANH

Department of Pathology and Medical Biology, University Medical Center

Groningen, The Netherlands

22nd ISANH International Conference on
Oxidative Stress Reduction, Redox Homeostasis & Antioxidants
PARIS REDOX 2020

October 8 - 9, 2020 - Virtual Congress

Discussion & Scientific - Innovation Awards

- Covid-19 & Oxidative Stress
- Redox 2020: Recent Advances & Perspective
- Microbiota Diversity, Redox and Inflammation
- Reactive Species Interactome Evaluation
- Redox Medicine: Innovations & Clinical Studies
- Paris Redox Scientific & Innovation Awards 2020

Important Dates

Short Oral presentation: Sep. 4
 Poster presentation: Sep. 14

Special Session

Covid-19 & Oxidative Stress

Paris Redox 2020 Speakers



Angiotensin-converting enzyme-2 (ACE2), SARS-CoV-2 and pathophysiology (COVID-19)

Harry van Goor
 President of ISANH & University Medical Center,
 The Netherlands



Are Reactive Sulfur Species The New Reactive Oxygen species?

Kenneth R. Olson,
 Indiana University School of Medicine in South Bend, USA



Upregulation and Functional Role of Hydrogen Sulfide Producing Enzymes in Cancer

Csaba Szabo,
 University of Fribourg, Switzerland



Oxidative Stress: Eustress and Distress

Helmut Sies,
 Heinrich Heine University Düsseldorf, Germany



Redox & Fasting 2020: Periodic Fasting Improves Blood Oxidative Stress Profile in Humans

Dimitrios Kouretas,
 University of Thessaly, Greece



Hemin-induced oxidative death –linked to labile iron

Melanie Merkel,
 University of Marburg, Germany



Probiotic Inhibition of Microbiota-mediated Oxidative Stress in the Gastrointestinal Tract

Stan Kubow,
 School of Human Nutrition, McGill University, Canada



Iron: Innocent bystander or vicious culprit in COVID-19 pathogenesis?

Marvin Edeas,
 Institute Cochin - University Paris Descartes, France



Systemic Oxidative Stress, Microbiota and Redox-Targeted Therapeutics in Inflammatory Bowel Disease

Arno Bourgonje,
 University Medical Center Groningen, The Netherlands



Effects of Photobiomodulation on Cancer Cells through the Reactive Species Interactome, Proteases and Bioenergetic Metabolism

Laurent Chatre,
 Université de Caen-Normandie, France



Integrating Signaling Pathways of Ferroptosis and Necroptosis at Mitochondria

Carsten Culmsee,
 University of Marburg, Germany



Interaction between Hydrogen Sulphide and Nitric Oxide in the Diabetic Cardiomyopathy

Jin-Song Bian,
 National University of Singapore, Singapore



Ferroptosis in the Heart

Fudi Wang,
 University School of Medicine, China



Red Blood Cells as a Central Hub in the Interaction among Reactive Species

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



An Unexpected Antiferroptotic Activity of a Sterol Metabolite

Jose Friedmann-Angeli,
 University of Würzburg, Germany



Mitochondria, Oxidative Stress and Preeclampsia

Enrique Terán,
 Universidad San Francisco de Quito, Ecuador



The Role of Oxidative Stress in the Initiation and Progression of Systemic Sclerosis

Udo Mulder,
 University of Groningen, The Netherlands



Regulation of Oxidative Stress and Cell Death by Lysosomal Iron

Jonathan Geiger,
 University of North Dakota, USA



Reductive Stress Causes Pathological Cardiac Remodeling and Diastolic Dysfunction

Rajasekaran Namakkal-Soorappan,
 University of Alabama at Birmingham, USA



Ferroptosis and Necroptosis in Stroke

Marietta Zille,
 University of Luebeck, Germany



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22nd International Conference on
Oxidative Stress, Redox Homeostasis & Antioxidants
2020

October 7-9, 2020 – Virtual Congress & Workshop

Day 1 – Wednesday, October 7, 2020

Workshop
How to Evaluate Oxidative Stress &
Antioxidants Activities

14:00 **Welcome Note**

Carole Nicco, Institut Cochin - INSERM U1016, Université de Paris, France

14:05 **Introduction Remarks**

Harry van Goor, President of Paris Redox 2020, University Medical Center, Groningen, The Netherlands

Full agenda and information, please follow this link

WORKSHOP AGENDA
Live & Recorded

Paris Redox 2020 Virtual Conference

Day 2 – Thursday, October 8, 2020

08:00 **Welcome Note**

Carole Nicco, Institut Cochin - INSERM U1016, Université de Paris, France

08:20 **Opening of Paris Redox World Conference & Introduction Remarks**

Harry van Goor, President of Paris Redox 2020, University Medical Center, Groningen, The Netherlands

08:30 **Introduction to Redox 2020: Today & Tomorrow**

Session 1 – Redox 2020: Recent Advances & Perspectives

Chairperson: Harry van Goor

09:10 **Oxidative stress: Eustress and distress**

Helmut Sies, Heinrich Heine University Düsseldorf, Germany

Redox & Fasting 2020: Periodic fasting improves blood oxidative stress profile in humans

Dimitrios Kouretas, University of Thessaly, Greece

Mitochondria, oxidative stress and preeclampsia

Enrique Terán, University San Francisco de Quito, Ecuador

Red blood cells as a central hub in the interaction among reactive species

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

Effects of Photobiomodulation on Cancer Cells through the Reactive Species Interactome, Proteases and Bioenergetic Metabolism

Laurent Chatre, CNRS, UNICAEN, CEA, Université de Caen-Normandie, France

11:20 **Short oral presentations**

Maximal exercise-induced oxidative damage to proteins depends on body composition in young men
Mateusz Mardyla, University of Physical Education in Krakow, Poland

The role of aquaporin-8 (AQP8) in cytokine-mediated beta-cell toxicity
Christina Schaal, Hannover Medical School, Germany

The possible toxic effect of chlorpyrifos on cell viability in HEK293 cell line and antioxidant efficacy of selenium and curcumin
Bahar Ozturk Kurt, Istanbul University Cerrahpasa, Turkey

Session 2 – Microbiota Diversity, Redox and Inflammation

Chairperson: Stan Kubow

13:35 **Probiotic inhibition of microbiota-mediated oxidative stress in the gastrointestinal tract**
Stan Kubow, School of Human Nutrition, McGill University, Canada

Systemic oxidative stress, microbiota and redox-targeted therapeutics in inflammatory bowel disease
Arno Bourgonje, University Medical Center Groningen, The Netherlands

Session 3: ROS, RNS, RSS & Antioxidants: Recent Advances on Evaluation

Chairperson: Kenneth R. Olson

15:30 **Are reactive sulfur species the new reactive oxygen species?**
Kenneth R. Olson, Indiana University School of Medicine in South Bend, USA

Interaction between hydrogen sulphide and nitric oxide in the diabetic cardiomyopathy
Jin-Song Bian, Southern University of Science and Technology, China

Reductive Stress Causes Pathological Cardiac Remodeling and Diastolic Dysfunction
Rajasekaran Namakkal-Soorappan, the University of Alabama at Birmingham, USA

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

Isothiocyanates as H₂S-releasing agents and their antioxidant and cardioprotective effects
Valentina Citi, University of Pisa, Italy

Physical plasma as source of reactive species: cysteine as molecular beacon
Giuliana Bruno, Leibniz Institute for Plasma Science and Technology, Germany

Mechanisms of lung toxicity induced by biomass burning aerosols
Michal Pardo, Weizmann Institute of Science, Israel

Targeting cellular antioxidant defense system with redox-active molecules for fungal pathogen control
Jong Kim, Agricultural Research Service, United States Department of Agriculture, USA

Weak magnetic fields: a tool to manipulate ROS-Mediated stem cell proliferation and growth
Luke James Kinsey, Western Michigan University, USA

A novel method of every 12 hours of antioxidant supplementation to the human embryo culture media improves blastocysts quality
Israel Maldonado-Rosas, CITMER, Mexico

Involvement of oxidative stress in nickel oxide nanoparticles - induced damages in pulmonary artery endothelial cells
Ophélie Germande, CRCTB - INSERM U1045, France

The role of hydrogen sulfide (H₂S) and oxytocin receptor (OXTR) in preeclampsia
Sarah Ecker, Institute of Anesthesiological Pathophysiology and Process Engineering, Germany

The H₂S and the oxytocin systems in the hypothalamus of a porcine model of hemorrhagic shock with administration of sodium thiosulfate
Nicole Denoix, Clinic for Psychosomatic Medicine and Psychotherapy, Germany

Antioxidant effect in human of an acute intake of date seeds products (powder, bread and extract)
Carine Platat, United Arab Emirates University, United Arab Emirates

17:00 End of the Second Day

Day 3 – Friday, October 9, 2020

Session 4: Redox Medicine: Innovations & Clinical Studies

Chairperson: Csaba Szabo

- 9:00 **Upregulation and functional role of hydrogen sulfide producing enzymes in cancer**
Csaba Szabo, University of Fribourg, Switzerland
- The role of oxidative stress in the initiation and progression of systemic sclerosis**
Udo Mulder, University of Groningen, The Netherlands
- Redox targeting in anti-hypoxia Adenosinergic immunotherapy of cancer**
Stephen Hatfield, Northeastern University, USA
- Short oral presentations** (7 minutes for presentation + 3 minutes for questions)
- Antioxidants in male infertility treatment – Improving sperm motility**
Biljana Markovska, PZU Plodnost Bilota, North Macedonia
- Therapeutic ROS provide immunoprotection against malignant melanoma**
Ramona Clemen, Leibniz Institute for Plasma Science and Technology, Germany
- Gain of function effects of Oxidized phospholipids makes them pharmacological targets and leads**
Olga V. Oskolkova, University of Graz, Austria
- Infant telomere length associated with attention deficit/hyperactivity symptoms in children**
Cindy Pham, Murdoch Children's Research Institute, Australia

Session 5 - Cytokine Storm, Iron & Oxidative Stress in COVID-19 patients: A Vicious Circle

Chairperson: Carole Peyssonnaud

- 14:00 **Iron: Innocent bystander or vicious culprit in COVID-19 pathogenesis?**
Marvin Edeas, Institute Cochin - University Paris Descartes, France
- Angiotensin-converting enzyme-2 (ACE2), SARS-CoV-2 and pathophysiology of coronavirus disease 2019 (COVID-19)**
Harry van Goor, University Medical Center, Groningen, The Netherlands
- Potential role of hydrogen gas in the treatment of Kawasaki disease**
Ho-Chuang Kuo, Kaohsiung Chang Gung Memorial Hospital, Taiwan
- Short oral presentations**
- Oxidative stress biomarkers for prediction of severity in COVID19**
Morgane Ducastel, Cochin Hospital, AHPH-CUP, France

Symposium

The crosstalk between ferroptosis, regulated necrosis and mitochondrial death signaling in human disease

Chairperson: Carsten Culmsee

- 15:00 **Integrating signaling pathways of ferroptosis and necroptosis at mitochondria**
Carsten Culmsee, University of Marburg, Germany
- An unexpected antiferroptotic activity of a sterol metabolite**
Jose Friedmann-Angeli, University of Würzburg, Germany
- Ferroptosis in the heart**
Fudi Wang, University School of Medicine, China
- Regulation of oxidative stress and cell death by lysosomal iron**
Jonathan Geiger, University of North Dakota, USA
- Ferroptosis and necroptosis in stroke**
Marietta Zille, University of Luebeck, Germany
- Hemin-induced oxidative death – linked to labile iron**
Melanie Merkel, University of Marburg, Germany
- Role of necroptosis and iron deposits in traumatic brain injury**
Antonia Clarissa Wehn, Ludwig Maximilian University of Munich, Germany

16:50 Short oral presentations of Day 2

Oleuropein aglycone counteracts the oxidative stress in Alzheimer's disease by disrupting amyloid β fibrils: investigation of the mechanism of action of this polyphenol from extra virgin olive oil

[Simone Brogi](#), University of Pisa, Italy

Characterization of photochemical properties of human red blood cells in oxidative stress conditions by fluorescence lifetime imaging microscopy

[Amirali Rostam Davoudpour](#), Adam-Mickiewicz University Poznan, Poland

Does continuous OS reduction prevent and ameliorate diseases through species diversity of intestinal bacteria?

[Fukka \(Fuhua\) You \(Yang\)](#), Gifu University, Japan

Physical, phytochemical composition and biological potential of portuguese sweet cherries

[Ana Carolina Almeida Gonçalves](#), CICS-UBI—Health Sciences Research Centre, Portugal

The effect of vitamin e on oxidative stress and cardiovascular complications in hemodialysis patients

[Leila Azouaou Toulbi](#), Nefissa Hamoud university hospital, Algeria

17:30 Concluding remarks: Redox 2020

18:00 End of Paris Redox 2020 Congress

Accepted Poster Presentations

Social Stress Induces Oxidative Stress in Soldiers with Prospective Cardiovascular Risk

[Dae-Sup Rhee](#), Ulm University Medical Centre, Germany

The Antioxidant Effects of Human-derived Lactobacillus Strain L.fermentum U021 in Mouse Model of Oxidative Stress

[Maria Marsova](#), Vavilov Institute of General Genetics of Russian Academy of Sciences, Russian Federation

Beneficial Properties of the Nutritional Bioactive Resveratrol against Lipofuscin Compound A2e-induced Toxicity in Human Retinal Cells

[Agustina Alaimo](#), University of Buenos Aires, Faculty of Exact and Natural Sciences, Argentine

Fasudil Ameliorates Cognitive Deficits, Oxidative Stress and Neuronal Apoptosis via Inhibiting Rock/mapk and Activating Nrf2 Signaling Pathways in App/PS1 Mice

[Wen-Yue Wei](#), Shanxi University of Chinese Medicine, China

Covid-19 Infection Is Oxidative Stress Disease. Twendee Will be Best Solution to Prevent and Avoid Severe Symptoms

[Haruhiko Inufusa](#), Gifu University, Japan

Preliminary Evaluation of the Antioxidant Capacity of Debaryomyces Hansenii to Reduce Liver and Colon Tissue Damage in a Murine Model of Acute Colitis

[C. Marissa Calderón-Torres](#), Universidad Nacional Autónoma de México, Mexico

Structure-related Antioxidant and Anti-inflammatory Activities of Flavonoids and 2-styrylchromones

[Daniela Ribeiro](#), University of Porto, Portugal

Evolution of Polyphenolic Content of Fireweed (epilobium Angustifolium L.) Infusion during in Vitro Gastro-intestinal Digestion

[Dominik Sz wajgier](#), University of Life Sciences in Lublin, Poland

Phenolic Profile and Antioxidant Activity of Prunus Avium L. Extracts

[Biljana Bozidar Milosevic](#), University of Novi Sad, Faculty of Sciences, Serbia

Nucleoredoxin Maintains CAMK2 α Redox Balance but Its Absence in Neurons Is Well Compensated

[Bao Ngoc Tran](#), Goethe Hospital University, Germany

HNF4A Suppresses the Aberrant Transcriptional Activity of Nrf2 Mutations in HCC Cell Lines

[Effi Haque](#), Institute of Genetics and Animal Breeding of Polish Academy of Sciences, Poland

Evaluation of Redox Capacity and Antioxidant Capability of Laurus Nobilis L

[Biljana Bozidar Milosevic](#), University of Novi Sad, Faculty of Sciences, Serbia

Increased Antioxidant Defense in HIV-1 Elite Controllers

[Maïke Sperk](#), Karolinska Institutet, Sweden

Novel Ex-Vivo Model to Study Skin Antioxidants

[Reem Alnemari](#), Philipps-Universität Marburg, Germany

Effects of Sodium Thiosulfate during Resuscitation of Hemorrhagic Shock and Chest Trauma in CSE Knockout Mice

[Benedikt Nussbaum](#), University Hospital Ulm, Germany

Malic Enzyme is a Novel Target of Resveratrol
Elisabeth Hanny Tanzil, HTW Berlin, Germany

Volatile compounds, antioxidant activity, total phenolic content and bioavailability of horseradish roots
Lolita Tomsone, Latvia University of Life Sciences and Technologies, Latvia

The Administration of 5-Fluoro-2-Oxindole Inhibits Inflammatory Pain And Augments Morphine Antinociceptive Actions
Olga Pol, Institut d'Investigació Biomèdica Sant Pau, Spain

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