



SFRR E
2019



SCIENTIFIC PROGRAM

SFRR-E 2019 ANNUAL MEETING
“REDOX HOMEOSTASIS: FROM SIGNALING TO DAMAGE”

Day 1 – Wednesday June 19, 2019

8:30-18:30 Registration opens

8:30-9:00 Welcome

Symposium I- Redox and Metabolic Signaling in Cancer

Chairpersons: *Giuseppe Filomeni* (Danish Cancer Society Research Center, Denmark) and *Elena Papaleo* (Danish Cancer Society Research Center, Denmark)

9:00-9:30 The ATM protein kinase and regulation of stress signaling

Tanya T. Paull (The University of Texas at Austin, USA)

9:30-10:00 Targeting the proneoplastic role played by the chaperone TRAP1 in tumor cell mitochondria

Andrea Rasola (University of Padova, Italy)

10:00-10:30 Signaling of S-nitrosylation in cancer: from -omics to structures

Elena Papaleo (Danish Cancer Society Research Center, Denmark)

10:30-11:00 Coffee Break

Leopold Flohe Award Lecture

Chairpersons: **Helmut Sies – Regina Flohe**

11:00-11:35 Nitric oxide bioactivity in the brain - aging and disease

Ana Ledo (University of Coimbra, Portugal)

Catherine Pasquier Award Lecture

Chairpersons: **Daniela Caporossi - Nesrin Ozer**

11:35-12:10 Involvement of redox imbalance in Rett syndrome pathogenesis and clinical severity

Alessandra Pecorelli (North Carolina State University, USA)

Special Lecture

Chairpersons: **Enrique Cadenas – Giuseppe Poli**

12:10-13:00 Oxygen species in high glucose dependent vascular damage: where do they come from?

Salvator Moncada (King's College London, UK)

13:00-14:00 Lunch and Poster Viewing

Symposium II- Recent Advances in Redox Sensing in Cardiac and Vascular Pathophysiology

Chairpersons: *Roland Stocker (University of New South Wales, Australia)* and *Giovanni E. Mann (King's College London, UK)*

14:00-14:30 NADPH oxidases in angiogenesis

Katrin Schröder (Goethe-Universität Frankfurt, Germany)

14:30-15:00 Cysteine-based redox sensing and its role in signaling in cyclic nucleotide- dependent kinases in the cardiovascular system

Philip Eaton (King's College London, UK)

15:00-15:30 Oxidative processes in atherosclerotic plaque destabilization and their utility to image and identify vulnerable plaques

Roland Stocker (University of New South Wales, Australia)

Oral Presentations

Chairpersons: **Aphrodite Vasilaki - Brigitte Winklhofer-Roob**

15:30-17:00 Oral Communication Selected from Submitted Abstracts

17:00-17:30 Coffee Break

Symposium III- Lifestyle Interventions to Promote Antioxidant Status

Chairpersons: *José Viña (University of Valencia, Spain) and Maria Carmen Gómez-Cabrera (University of Valencia, Spain)*

17:30-18:00 Redox driven synaptic dysfunction in Alzheimer's disease

Viji Ravindranath (Centre for Brain Research, Indian Institute of Science, Bangalore, India)

18:00-18:30 Exercise acts as an antioxidant drug

Maria Carmen Gómez-Cabrera (University of Valencia, Spain)

18:30-19:00 Oxidative stress, telomeres and cellular ageing: What kind of non-drug interventions might break the link?

Jorge D. Erusalimsky (Cardiff Metropolitan University, Cardiff, UK)

19:00-20:30 Poster Viewing

20:30 Welcome reception - Castello Estense

Day 2 – Thursday June 20, 2019

8:00-18:30 Registration opens

8:00-9:00 Sunrise Seminar - How to Write a Competitive Grant

Helen Griffiths (University of Surrey, UK)

Symposium IV - The microbiota-gut-brain axis: a journey from dietary nitrate to nitric oxide via inorganic nitrite

Chairpersons: **Ana Ledo** (*University of Coimbra, Portugal*) and **Bárbara S. Rocha** (*University of Coimbra, Portugal*)

9:00-9:30 Bacteria-immune cell interactions at the intestinal Peyer's Patches

Mia Phillipson (Uppsala University, Sweden)

9:30-10:00 Microbiota Gut-brain axis regulation of hippocampal neurogenesis and behaviour

Olivia O'Leary (University College Cork, Ireland)

10:00-10:30 Redox modulation of systemic metabolic pathways by dietary nitrate: impact on metabolic syndrome

Mattias Carlstrom (Karolinska Institutet, Sweden)

10:30-11:00 Coffee Break

SFRRE “Elsevier” Basic Science Award Lecture

Chairpersons: **Kelvin Davies - Leopold Flohe**

11:00-12:00 Oxygen, Sulfur, Selenium, Iron and Lipid Peroxidation: How GPx4 Controls Cell Life and Death

Fulvio Ursini (University of Padova, Italy)

Young Investigators Awards

Chairpersons: **Patricia Oteiza – Niki Chondrogianni**

12:00-13:00 Awarded by SFRR-E and summer school 2018

13:00-14:00 Lunch and Poster Viewing

Symposium V - Air Pollution: Relationship of Particulate Components to Health

Chairpersons: **Henry Jay Forman** (*The University of Southern California, USA*) and **Frank J. Kelly** (*King's College London, UK*)

14:00-14:30 Comparison of airway responses induced in a mouse model by the gas and particulate fractions of gasoline

Krystal Pollitt (*Yale University, USA*)

14:30-15:00 Threat to human health from environmental plastics

Stephanie Wright (*King's College London, UK*)

15:00-15:30 Assays for hazardous components of air pollution

Henry Jay Forman (*The University of Southern California, USA*)

Oral Presentations

Chairpersons: **Bato Korac** – **Corinne Spickett**

15:30-16:30 Oral Communication Selected from Submitted Abstracts (4x15')

16:30-17:00 Coffee Break

Chairpersons: **Cesar Fraga** – **Betrand Friguet**

17:00-18:00 Oral Communication Selected from Submitted Abstracts (4x15')

18:00-19:00 General assembly

18:00-19:30 Poster Viewing

19:30-20:30 Opera Concert: Cristian Ricci, Tenor.

21:00 Gala Dinner and Awards – Palazzo Roverella

Day 3 – Friday June 21, 2019

8:00-9:00 Sunrise Seminar - How to Write a Great Scientific Paper and Get it Accepted!

Tilman Grune (German Institute of Human Nutrition, Germany)

Anthony Newman (Elsevier)

Symposium VI - Mitochondrial Redox Signalling and Metabolic Adaptation in Hypoxia

Chairpersons: *Antonio Martínez-Ruiz (Instituto de Investigación Sanitaria Princesa, Spain)* and *Bernhard Brüne (Goethe-Universität Frankfurt, Germany)*

9:00-9:30 Redox signaling in acute oxygen sensing

Lin Gao (Instituto de Biomedicina de Sevilla, Universidad de Sevilla, Spain)

9:30-10:00 Mitochondrial metabolic rewiring in cancer cells in response to hypoxia-induced glycolysis

Olivier Feron (Université Catholique de Louvain, Belgium)

10:00-10:30 Mitochondrial Na⁺ import as a key controller of mitochondrial ROS signaling in acute hypoxia

Antonio Martínez-Ruiz (Instituto de Investigación Sanitaria Princesa, Spain)

10:30-11:00 Coffee Break

SFRR Europe Annual Award Lecture

Chairpersons: **Michael Davies – Patricia Oteiza**

11:00-12:00 Oxidative Damage, Proteolysis and Protein Aggregates

Tilman Grune (German Institute of Human Nutrition, Germany)

Young Investigators Awards

Chairpersons: **Richard Siow – Clare Hawkins**

12:00-13:00 Awarded by SFRR-E and summer school 2018

13:00-14:00 Lunch and Poster Viewing

Symposium VII - Redox Signaling and Therapy in Metabolic Syndrome and Fatty Liver Disease

Chairpersons: **María Monsalve** (*Instituto de Investigaciones Biomédicas "Alberto Sols", Spain*) and **Juan Sastre** (*University of Valencia, Spain*)

14:00-14:30 *Mitochondrial dysfunction in tumor development: from NAFLD to HCC*

María Monsalve (*Instituto de Investigaciones Biomédicas "Alberto Sols", Spain*)

14:30-15:00 Role of mitochondrial dysfunction and oxysterols in NASH

Gaetano Serviddio (*University of Foggia, Italy*)

15:00-15:30 Redox modulation of FOXO1 transcription factor and its consequences for metabolism

Lars Oliver Klotz (*Friedrich Schiller University, Germany*)

SFRR Europe Clinical Award Lecture

Chairpersons: **Josiane Cillard – Giovanni Mann**

15:30-16:30 Cell Programs for Elimination of the Unnecessary: Fatal Role of Peroxidized Lipids

Valerian E Kagan (*University of Pittsburgh, USA*)

16:30-17:00 Coffee Break

Symposium IV- ROS in Nervous System Function and Dysfunction

Chairpersons: **Daniel M. Suter** (*Purdue University, USA*) and **Christian Gonzalez-Billault** (*Universidad de Chile, Chile*)

- 17:00-17:30 Redox biology mechanisms involved in axonal outgrowth
Christian Gonzalez-Billault (Universidad de Chile, Chile)
- 17:30-18:00 RhoGTPase regulation of redox homeostasis in microglia
João Bettencourt Relvas (University of Porto, Portugal)
- 18:00-18:30 Actin filaments remodeling via oxidation by MICAL family enzymes
Elena E. Grintsevich (University of California, USA)
- 18:30-19:00 Closing Remarks