

# SCIENTIFIC PROGRAM

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

*Day 1 – Wednesday June 19, 2019*

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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: TBN

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

**Ana Ledo** (*University of Coimbra, Portugal*)

## **Catherine Pasquier Award Lecture**

Chairpersons: TBN

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

*Alessandra Pecorelli (North Carolina State University, USA)*

**Special Lecture:** Title to be notified

Chairpersons: TBN

12:10-13:00 *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 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)*

14:30-15:00 Molecular damage and lung tumors in cigarette smoke-exposed mice

*Katrin Schröder (Goethe-Universität Frankfurt, Germany)*

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: TBN

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 Impact of caloric restriction and caloric restriction mimetics in stress response and survival

**Rafael de Cabo** (*National Institutes of Health, USA*)

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

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

18:30-19:00 Can meditation slow rate of cellular aging? Cognitive stress, mindfulness, and telomeres.

**Elizabeth Blackburn** (*University of California, USA*)

19:00-20:30 Poster Viewing

20:30 Welcome reception - Castello Estense

*Day 2 – Thursday June 20, 2019*

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8:00-18:30 Registration opens

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

*Helen Griffiths*

**Symposium VIII - 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 Gut-bacterial crosstalk: how immune cells keep bacteria at bay

*Mia Phillipson* (Uppsala University, Sweden)

9:30-10:00 The microbiota-gut-brain axis in hippocampal neurogenesis: developing new therapeutic tools to counteract neuropsychiatric disorders

*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

**SFRR Europe Basic Science Award Lecture**

Chairpersons: TBN

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: TBN

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: TBN

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

16:30-17:00 Coffee Break

Chairpersons: TBN

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

18:00-18:30 General assembly

18:30-19:30 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*

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8:00-9:00 Sunrise Seminar - How to Write a Research Paper

*Tilman Grune (German Institute of Human Nutrition, Germany)*

**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<sup>+</sup> 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: TBN

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

*Tilman Grune (German Institute of Human Nutrition, Germany)*

**Young Investigators Awards**

Chairpersons: TBN

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 Role of mitochondrial dysfunction and oxysterols in NASH

*Gaetano Serviddio (University of Foggia, Italy)*

14:30-15:00 New mechanisms and targets in liver disease progression and hepatocarcinogenesis

*Matías Ávila (University of Navarra, Spain)*

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: TBN

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