

SCIENTIFIC PROGRAM

THIRD INTERNATIONAL CONFERENCE ON CELLULAR ENVIRONMENTAL STRESSORS IN BIOLOGY AND MEDICINE: FOCUS ON REDOX REACTIONS

Day 1 – Wednesday June 25, 2014

13:00-17:00 Registration

13:45- 14:00 Welcome

14:00-15:00 **Opening Lecture**

Chairperson: **Giuseppe Poli** (Italy)

Linking ambient air pollution effects with oxidative biology and immune responses.
Frank Kelly (UK)

Session I - Pollution and diet-dependent carcinogenesis

Chairpersons: **Huveйда Basaga** (Turkey) and **Henry J. Forman** (USA)

15:00-15:30 *Inflammatory mediators linking obesity and cancer.*
Young-Joon Surh (South Korea)

15:30-16:00 *Molecular damage and lung tumors in cigarette smoke-exposed mice.*
Alberto Izzotti (Italy)

16:00-16:30 *Smoke signals: activation of epithelial mesenchymal transition.*
Henry Forman (USA)

16:30-17:00 *Molecular pathogenesis of cigarette smoking-induced stable Chronic obstructive pulmonary disease (COPD).*
Gaetano Caramori (Italy)

17:00-17:30 Coffee Break

Chairpersons: **Frank Kelly** (UK) and **Fulvio Ursini** (Italy)

17:30-18:00 *Dietary inducers of an adaptive stress response.*
Marc Birringer (Germany)

18:00-18:30 *15-Hydroxyprostaglandin dehydrogenase as a novel target for chemoprevention of inflammation-associated carcinogenesis.*
Hey-Kyung Na (South Korea)

18:30-19:00 *The electronic cigarette: a blessing, or a villain in disguise.*
Abraham Reznick (Israel)

19:00-19:15 *Atg7-dependent autophagy protects melanocytes against premature senescence and contributes to the control of the Nrf2 stress response.*
Florian Gruber (Austria)

19:15-19:30 *Oxygen metabolism in the cardiorespiratory system after an acute exposure to Ni-doped nanoparticles.*
Natalia D. Magnani (Argentina)

20:00-21:30 Welcome reception

Day 2 – Thursday June 26, 2014

Session II. Environmental impact on plant and aquatic organisms

Chairpersons: **Marcela Simontacchi** (Argentina) and **Francesco Regoli** (Italy)

9:00-9:30 *Role of ROS and RNS production in the redox regulation of symbiosis.*
Alain Pупpo (France)

9:30-10:00 *Environmental pollution and function of plant leaves.*
Elina J. Oksanen (Finland)

10:00-10:30 *Redox signaling and stress tolerance in plants.*
Sergi Munné-Bosch (Spain)

10:30-11:00 *Nitric oxide and plant iron homeostasis.*
Marcela Simontacchi (Argentina)

11:00-11:15 Coffee Break

Chairpersons: **Alain Pупpo** (France) and **Elena Fabbri** (Italy)

11:15-11:45 *Oxidative stress from aquatic invertebrates to humans.*
Laura Canesi (Italy)

11:45-12:15 *Oxidative stress in ecotoxicology: from the analysis of individual antioxidants to a more integrated approach.*
Francesco Regoli (Italy)

12:15-12:30 *The effects of marine environmental changes on the transcriptome of the bottlenose dolphin (*Tursiops truncatus*).*
Annalaura Mancina (Italy)

12:30-12:45 *Bacterial killing due to ROS production in photodynamic therapy (PDT) is enhanced by synergistic effect of potassium iodide.*
Daniela Vecchio (USA)

Group photo

12:45-14:00 Lunch and poster viewing

Session III- Redox reactions and inflammation in disease progression

Chairpersons: **Mario Comporti** (Italy) and **Josiane Cillard** (France)

14:00-14:30 *Short-term cigarette smoke exposure induces reversible changes in energy metabolism and cellular redox status independent of inflammatory responses in mouse lungs.*
Enrique Cadenas (USA)

14:30-15:00 *Macrophage plasticity and polarization in chronic inflammation and cancer.*
Antonio Sica (Italy)

15:00-15:30 *Inflammatory and redox reactions in colon carcinogenesis.* **Fiorella Biasi** (Italy)

15:30-16:00 *Autophagy versus apoptosis in high cholesterol induced cardiac failure.*
Nesrin Ozer (Turkey)

16:00-16:15 Coffee Break

Chairpersons: **Carlo Cervellati** (Italy) and **Nesrin Ozer** (Turkey)

16:15-16:45 *Role of Nrf2 and sequestosome1/p62 in vascular oxidative stress and arterial remodeling.*
Giovanni Mann (UK)

16:45-17:15 *Oxidative stress in Rett syndrome: chicken egg puzzle?*
Joussef Hayek (Italy)

17:15-17:30 *Inflammation and oxidative balance: two key players engaged in the game of neuroblastoma chemoresistance.*
Barbara Marengo (Italy)

17:30-17:45 *Novel redox-mediated anti-inflammatory pathways in white adipose tissue.*
Katia Aquilano (Italy)

17:45-18:00 *Inflammation and plaque vulnerability: involvement of TLR4 activated by 27-hydroxycholesterol and 4-hydroxynonenal.*
Simona Gargiulo (Italy)

18:00-18:15 *Oxidative stress and cerebral cavernous malformations (CCM): from disease mechanisms toward prevention and treatment.*
Eliana Trapani (Italy)

18:15-19:00 **Keynote Lecture**

Chairperson: **Fabio Virgili** (Italy)

Flavanols and vascular health: a leading case to build evidence-based recommendations for bioactives.
Cesar G. Fraga (Argentina)

20:30 Gala Dinner and Awards Ceremony

Day 3 – Friday June 27, 2014

Session IV. Tolerance and adaptation to environmental stressors

Chairpersons: **Enrique Cadenas** (USA) and **Cesar Fraga** (Argentina)

09:00-09:30 *A conserved role for the 20S Proteasome and the Nrf2 transcription factor in transient and reversible adaptation to oxidative stress.*

Kelvin Davies (USA)

09:30-10:00 *Pulsed high oxygen induces hypoxic-like responses in humans.*

Fabio Virgili (Italy)

10:00-10:30 *Human pharmaceuticals as emerging aquatic contaminants: insights into adaptive and stress responses in marine molluscs.*

Elena Fabbri (Italy)

10:30-10:45 *Nitroxides protect against protein glycooxidation*

Izabela Sadowska-Bartosz (Poland)

10:45-11:00 Coffee Break

Session V. Adapted lifestyle and pharmaceutical interventions

Chairpersons: **Maria Ciriolo** (Italy) and **Concetta Gardi** (Italy)

11:00-11:30 *Mindfulness-based interventions, a top down strategy to reduce stress and improve resilience.*

Fabio Giommi (Italy)

11:30-12:00 *Redox regulation of E3 ubiquitin ligases and their role in skeletal muscle atrophy*

Carmen Gomez (Spain)

12:30-13:00 *Antioxidants as therapeutic agents for liver disease.*

Gaetano Serviddio (Italy)

13:00- 14.00 Lunch

Chairpersons: **Carmen Gomez** (Spain) and **Giuseppe Valacchi** (Italy)

14:00-14:30 *Mechanisms underlying the beneficial health effects of (-)-epicatechin and derived procyanidins.*

Patricia Oteiza (USA)

14:30-15:00 *Blood thiols and erythrocyte glutathione-S-transferase: in vivo biomarkers of the systemic response of Nrf2 to xenobiotics, endobiotics and food bioactives.*

Francesco Galli (Italy)

- 15:00-15:15 *Arbutin alleviates oxidative stress generated through tyrosinase reaction with L-tyrosine and L-DOPA: tested by electron paramagnetic resonance (EPR)-spin trapping method.*
Mika Tada (Japan)
- 15:15-15:30 *Grape seed flour prevents obesity related characteristics: metabolic diseases and changes microbiome in hamsters fed high fat diets.*
Wallace Yokoyama (USA)
- 15:30 -15:45 *Extra virgin olive oil polyphenols protect human intestinal cells against oxidative damage.*
Monica Deiana (Italy)
- 15:45-16:00 *Antioxidant capacity and phenolic composition of red wines from various grape varieties: specificity of Pinot Noir.*
Joël Pincemail (Belgium)
- 16:00 **Concluding Remarks**
Giuseppe Valacchi (Italy)
Giuseppe Poli (Italy)
Concetta Gardi (Italy)