



OCC 2012
20-23 JUNE 2012
ALBA, ITALY

SCIENTIFIC PROGRAM

PLENARY LECTURES

Eduardo Calabrese
Richard Weindruch

Hormesis and health: a generalized quantitative estimate of biological plasticity
Metabolic reprogramming, caloric restriction, and aging

I – NRF2-DRIVEN REGULATION OF ANTIOXIDANT DEFENSES

CHAIRPERSONS

Masayuki Yamamoto
Thomas Kensler
Giovanni Mann
Young-Joon Surh
Regina Brigelius-Flohé

Molecular mechanisms of Keap1-Nrf2 pathway in stress response and cancer evaluation
Keap1-Nrf2 signaling: targets for disease prevention
Nrf2-mediated redox signaling in endothelial cells: consequences for cardiovascular disease
Adaptive survival response mediated by the Nrf2-induced HO1 upregulation
Nrf2 target genes are induced under marginal selenium deficiency

II – NUTRIENT-GENE INTERACTIONS AND EPIGENETICS

Ben van Ommen
Steven Zeisel
Frederick E. Domann
Emily Ho
Bharat B. Aggarwal
Irfan Rahman

Micronutrients: an overview
Functional genetic polymorphisms in genes of choline metabolism
The redox basis of epigenetic control
Dietary histone deacetylases inhibitors for cancer prevention
Epigenetic changes induced by curcumin
Redox epigenetic modifications by dietary bioactive compounds in inflammation

III – NOVEL ROLES OF MICRONUTRIENTS

Vittorio Calabrese
Gerald Rimbach
Helen McNulty
David Heber
Louis Casteilla
David Carlson
Andrew Levy

Cellular stress response and carnitine insufficiency in aging and neurodegenerative disorders
Apolipoprotein E, dietary phytochemicals, and gene expression: the Mediterranean phenotype
MTHFR genotype and riboflavin: a novel gene-nutrient interaction affecting blood pressure
Biomedical action of pomegranate ellagitannins
Redox metabolism, coenzyme Q, and obesity
Redox modulation of cell signaling by lipoic acid
Pharmacogenomic interactions between vitamin E and the haptoglobin genotype in diabetes

IV – LIPID OXIDATION AND SIGNALING

<i>Etsuo Niki</i>	Physiological and unregulated membrane lipid oxidation
<i>Laszlo Nagy</i>	Transcriptional interactions involving hormone nuclear receptors shaping macrophage activity
<i>Gabriella Leonarduzzi</i>	Lipid oxidation-mediated mechanisms of destabilization of the atherosclerotic plaque
<i>Tilman Grune</i>	Lipid protein interactions in cell signaling and toxicity
<i>Gaetano Serviddio</i>	Non-alcoholic fatty liver diseases, oxidative stress, and mitochondria
<i>Oren Tirosh</i>	Nutrition lipid-induced oxidative stress and mitochondrial dysfunction in fatty liver
<i>Luigi Iuliano</i>	Oxysterols in the pathogenesis of inflammatory-based disease
<i>Corinne Spickett</i>	Lipid-protein adducts as biomarkers of inflammatory-based diseases in humans
<i>Francisco Schopfer</i>	Electrophilic nitro-fatty acids as anti-inflammatory mediators in the vascular compartment

V – EPIGENETICS, METABOLISM, AND AGING

<i>Mario Fraga</i>	Epigenetic regulation of aging
<i>Gregory Brewer</i>	Epigenetic redox shift, micronutrients, aging, and insulin
<i>Silvia Gravina</i>	Role of random changes to epigenetic marks in aging
<i>Gayathri Swaminathan</i>	Relocation of mtDNA to nucleus: implications for mitochondrial mutations
<i>José Viña</i>	Modulation of aging genes: importance in longevity and age-associated frailty
<i>Ana María Cuervo</i>	Autophagy and aging
<i>Suresh Rattan</i>	Molecular gerontology: from molecules to hormesis
<i>Kelvin Davies</i>	Proteolytic signaling dysfunction in aging
<i>Malcolm Jackson</i>	Reactive oxygen species in muscle wasting during aging
<i>Leo Rodriguez-Mañas</i>	Frailty: a basic and clinical challenge for the future
<i>Maria Cristina Polidori</i>	Cholesterol modulation in midlife affords cognitive advantage during aging