



## Redox Systems, Oxidative Stress, and Antioxidant Defences in Health and Disease

Guest Editors:

**Prof. Dr. Maria A. Livrea**

Department of Biological  
Chemical and Pharmaceutical  
Sciences and Technologies,  
University of Palermo UNIPA,  
Palermo, Italy

**Dr. Mario Allegra**

Dipartimento di Scienze e  
Tecnologie Biologiche Chimiche  
e Farmaceutiche, Università degli  
Studi di Palermo, 90123 Palermo,  
Italy

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### Message from the Guest Editors

Reactive oxygen and nitrogen species (RONS) play a key role in the regulation of cell survival. Under physiological conditions, a balance between generation and elimination of RONS ensures the proper function of redox-sensitive signaling proteins. Conversely, alterations of the redox homeostasis may disrupt the function of key transcription factors, signal-transduction pathways. So, understanding the mechanisms underlying cellular redox homeostasis may help to develop nutraceutical and/or pharmacological tools to counteract the development of a wide number of redox-dependent pathologies, including cardiovascular, neurodegenerative, inflammatory-based diseases and cancer.

The aim of this Issue is to bring together updated research concerning the activity and control of redox-regulated cell systems in physiological processes and pathological conditions. This can include both in vitro and in vivo studies aiming to explore molecular mechanisms as well as cell and body response. In addition, the role of phytochemicals, nutraceuticals, and dietary patterns in the control of redox-dependent pathophysiological conditions will be considered.





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## Editor-in-Chief

**Prof. Dr. Alessandra  
Napolitano**

Department of Chemical  
Sciences, University of Naples  
"Federico II", Via Cintia 4, I-80126  
Naples, Italy

## Message from the Editor-in-Chief

It has been recognized in medical sciences that in order to prevent adverse effects of "oxidative stress" a balance exists between prooxidants and antioxidants in living systems. Imbalances are found in a variety of diseases and chronic health situations. Our journal *Antioxidants* serves as an authoritative source of information on current topics of research in the area of oxidative stress and antioxidant defense systems. The future is bright for antioxidant research and since 2012, *Antioxidants* has become a key forum for researchers to bring their findings to the forefront.

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*Antioxidants* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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