



Oxidative Balance and Heart Function: A Physiological Lifelong Challenge

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Message from the Guest Editors

ROS are mediators of signaling through specific protein targets, which are involved in metabolic regulation to support cardiomyocytes function and adaptation. On the other hand, an excess of ROS is detrimental for cardiac function. In this scenario, the redox balancing in the heart is a direct consequence of ROS and ROS countermeasures, acting together to maintain homeostasis. Alteration of this equilibrium could contribute to the physiological aging of the heart and to the onset of pathological conditions. In addition, the degree of these alterations could be also a consequence of a suboptimal lifestyle or environmental challenges that cause metabolism to be more prone to ROS.

The aim of this Special Issue is to focus on the most recent discoveries on ROS-induced cell responses influencing cardiac function, and to highlight the different molecular mechanisms, signaling pathways and biological strategies by which cardiomyocytes adapt/react to oxidative stress.





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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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