



## Mitochondrial Oxidative Stress in Aging and Disease

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### Message from the Guest Editors

Mitochondria are the body's main metabolic hubs, they house cellular respiration and other crucial processes, and are involved in signaling pathways entailed in health and disease conditions through changes in metabolites concentrations and in enzyme activities. Mitochondrial oxidative stress is present in physiological (such as aging) and pathological processes and is always associated with dysfunction of the organelle, where it can lead to neurotoxicity, genomic instability, pro-inflammatory gene transcription, cytokine release and overt pathologies. Mitochondria are nowadays emerging as central players in age-related and metabolic diseases, and have increasingly been assessed as relevant in different diseases. This Special Issue's goal is to provide a broad and updated overview of the involvement of "Mitochondrial oxidative stress in aging and disease", which might shed light on model systems, patho-physiological mechanisms and novel therapeutic approaches.





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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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