



Oxidative Stress and Mitochondrial Dysfunctions in Neurological Diseases, Preventive Effects of Bioactive Natural Compounds

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Message from the Guest Editors

Many neurodegenerative, neurodevelopmental, and neuropsychiatric disorders are associated with mitochondrial dysfunction and oxidative stress. Oxidative stress is generated by an imbalance in cellular redox status, due to overproduction of oxygen radical species (ROS) and/or decreased antioxidant response. Mitochondria are also involved in ROS production.

Many phytochemicals can prevent or manage some neurological clinical manifestations. Many dietary compounds can also modulate signaling pathways, gene and microRNA expression, epigenetic mechanisms, as well as the microbiota–brain axis.

Contributions to this Special Issue may cover all research aspects related to the field of redox biology and mitochondria regulation, as well as mechanisms of action of dietary antioxidants and natural compounds pharmacology in neurological diseases, including but not limited to neurodevelopmental, neurodegenerative, neuroinflammation, and neuropsychiatric disorders.

We cordially invite scientists involved in base research as well as in preclinical and clinical studies to submit their original research or review manuscripts to this Special Issue.





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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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