

Special Issue

Redox Enzymes in Neurodegenerative Diseases

Message from the Guest Editor

Reactive oxygen species are produced mainly in the mitochondria and are required for cells to proliferate and survive through ROS-dependent signalling pathways under normal physiological conditions. However, an imbalance between the production and elimination of ROS causes oxidative damage to biomolecules and mitochondrial dysfunction and is closely associated with a variety of neurodegenerative diseases. The brain is particularly vulnerable to oxidative stress due to high oxygen consumption, high contents of unsaturated fatty acids and relatively low levels of antioxidant defence. The purpose of this Special Issue is to bring together latest research involved in the activities of antioxidant enzymes and the regulation of redox homeostasis in healthy and pathological conditions. Molecular mechanism studies using in vitro and/or in vivo systems aimed at cellular stress responses can be included in this Special Issue. In addition, approaches to the regulation of redox enzymes in brain diseases, through neurohormetic phytochemicals, dietary restriction and exercise, will also be considered.

Guest Editor

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About the Journal

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.

Editor-in-Chief

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