

## Special Issue

# Role of Antioxidants and Oxidative Stress in Neurodegenerative Diseases

### Message from the Guest Editor

Neurodegenerative diseases (such as Parkinson's, Alzheimer's, Huntington's, multiple sclerosis, and frontotemporal dementia) stem from oxidative stress caused by ROS/RNS imbalance. The brain's unique metabolism makes it particularly susceptible. This oxidative damage affects neurons, glia and vascular cells, causing BBB breakdown, protein aggregation and neuroinflammation. Antioxidant treatments - including natural and synthetic compounds - may counteract these effects through free radical scavenging and pathway modulation.

This Special Issue of *Antioxidants* aims to provide an overview of the latest advances in the knowledge of the role of oxidant and antioxidant species in the pathogenesis of neurodegenerative diseases, as well as an overview of the recent developments in the application of antioxidants for the clinical management of these disorders. To accomplish this, we call for reviews and original papers on this matter of such important public health interest.

### Guest Editor

Dr. Barbara Sottero

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### Deadline for manuscript submissions

31 March 2026



## Antioxidants

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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.

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### Editor-in-Chief

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