Special Issue

Oxidative Stress and Its Mitigation in Neurodegenerative Disorders

Message from the Guest Editor

Oxidative stress, commonly defined as excessive production of free radicals, decreases the scavenging of free radicals by antioxidant enzymes and/or small-molecule antioxidants, and it is now widely accepted as a critical aspect of neuronal loss, with consequent abnormal pathology and symptomology, in neurodegenerative disorders. The mechanisms of elevated oxidative stress are numerous and diverse, and they include mitochondrial dysfunction, metabolic dysfunction, the activation of the mTORC1 pathway, the peroxidation of membrane bilayer-resident lipids, and roles involving the oligomeric forms of peptides, proteins and oligosaccharides. Potential mitigation of oxidative stress can be achieved by certain endogenous antioxidant enzymes or small-molecule antioxidants, as well as by the application of exogenous small-molecule antioxidants, i.e., naturally occurring or synthetic molecules. Papers discussing various aspects of oxidative stress and its mitigation in neurodegenerative disorders will be considered for inclusion in this Special Issue of Antioxidants.

Guest Editor

Prof. D. Allan Butterfield

Department of Chemistry, and Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY 40506, USA

Deadline for manuscript submissions

31 March 2026

Antioxidants

an Open Access Journal by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed

mdpi.com/si/215047

Antioxidants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
antioxidants@mdpi.com

mdpi.com/journal/antioxidants

Antioxidants

an Open Access Journal by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed

mdpi.com/journal/antioxidants

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

Prof. Dr. Alessandra Napolitano
Department of Chemical Sciences, University of Naples "Federico II", Via Cintia 4, I-80126 Naples, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, FSTA, PubAg, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Chemistry, Medicinal) / CiteScore - Q1 (Food Science)