

Special Issue

Significance of Antioxidants on Aging and Neurodegeneration

Message from the Guest Editors

Brain tissue is one of the most vulnerable organs to oxidative stress due to its high content of polyunsaturated fatty acids, oxygen saturation, and iron, in addition to its low antioxidant enzyme activity.

Oxidative stress is involved in the pathogenesis of both aging and neurodegenerative diseases, including Alzheimer's disease, Parkinson's disease, epilepsy, depression, etc. The therapeutic efficacy of antioxidant treatment has been proven in preclinical and clinical studies. However, the precise mechanism underlying the effects of antioxidants is questioned, specifically as to whether is associated with direct radical scavenger action or the modulation of key signaling pathways related to neurodegeneration. This Special Issue will involve research manuscripts, reviews and short commentaries on topics related to the underlying mechanism and the role of putative signaling molecules in the effects of different natural and synthetic antioxidants against the pathophysiology of neurodegenerative diseases. Papers focused on the intrinsic role of treatments with antioxidants on oxidative stress and its impact on neurodegeneration will be considered for this Special Issue.

Guest Editors

Dr. Jana Tchekalarova

Institute of Neurobiology, Bulgarian Academy of Sciences, Acad. G. Bonchev Street, Block 23, 1113 Sofia, Bulgaria

Prof. Dr. Rumiana Tzoneva

Laboratory of Transmembrane Signaling, Institute of Biophysics and Biomedical Engineering Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria

Deadline for manuscript submissions

closed (31 January 2022)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/65836

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)



About the Journal

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle
Marche, Via Ranieri 65, 60100 Ancona, 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, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore
- Q1 (Organic Chemistry)