Special Issue

Neurotoxicity: Cellular Death Mechanisms in the Pathogenesis of Neurodegenerative Diseases

Message from the Guest Editors

Neurotoxicity resulting in adverse effects on the nervous system and neurological function is a serious public health concern. Growing evidence suggests a strong link between neurotoxicity and the development of neurodegenerative diseases, which generally lack effective treatments. Thus, understanding the intricate mechanisms behind neurotoxicity is essential for identifying and addressing the pathways involved in neurodegeneration.

This Special Issue aims at underscoring neurotoxicity as a critical factor in the progression of neurodegenerative diseases, such as Parkinson's and Alzheimer's diseases. We invite submissions that provide innovative insights into the molecular mechanisms connecting toxic exposure to the onset and advancement of these conditions. Special attention will be given to potential therapeutic targets related to neurotoxicity, including ferroptosis and mitochondrial dysfunction, which are vital for mediating neurodegeneration. Furthermore, we encourage manuscripts that explore neuroprotective strategies designed to mitigate the harmful effects of neurotoxicity, thereby enhancing resilience against neurodegeneration.

Guest Editors

Dr. Md. Jakaria

School of Health Sciences, Purdue University, West Lafayette, IN 47907, USA

Prof. Dr. Jason Cannon

School of Health Sciences, Purdue University, West Lafayette, IN 47907, USA

Deadline for manuscript submissions

31 August 2025



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/232651

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





International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





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)

