

Special Issue

Molecular Pathogenesis of Neurodegenerative Diseases Targeting Early Diagnosis and Treatment

Message from the Guest Editor

The fight against neurodegenerative diseases (NDDs) is a global challenge of the 21st century. Priorities in neuroscience include fundamental studies of the cellular and molecular mechanisms of early pathogenesis of NDDs and their peripheral manifestations targeting early diagnosis and preventive treatment. Modeling the progression of NDDs in animals is the only means to study the molecular mechanisms of neurodegeneration and neuroplasticity in the central and peripheral nervous system at the early stage of the disease. In turn, studies of early peripheral genetic and metabolic manifestations of NDDs are carried out not only in animal models, but also in humans. Most of these studies are focused on changes in the chemical composition of bodily fluids, as well as changes in gene expression and the phenotype of peripheral cells. Fundamental knowledge of the cellular and molecular mechanisms underlying NDDs and the development of methods for early diagnosis may open up prospects for the use of preventive neuroprotective treatments that could slow down neurodegeneration and prolong the period of physical and social activity of subjects at risk.

Guest Editor

Prof. Dr. Michael Ugrumov

1. Faculty of Psychology, National Research University "Higher School of Economy", Moscow, Russia
2. Institute of Developmental Biology of the Russian Academy of Sciences, Moscow, Russia

Deadline for manuscript submissions

closed (15 May 2021)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 10.0
Indexed in PubMed



mdpi.com/si/56954

*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 10.0
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)* 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, and molecular biophysics. *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. José L. Quiles

Department of Physiology, Institute of Nutrition and Food Technology
"Jose Mataix", Biomedical Research Center, University of Granada,
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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, CAPus / SciFinder, and other databases.

Journal Rank:

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