

Special Issue

Parkinson's Disease and Related Diseases: Mechanisms, Genetic Factors and Treatments

Message from the Guest Editor

Parkinson's disease (PD) and related neurodegenerative disorders pose a growing global health challenge, affecting millions with progressive motor and cognitive decline. Despite extensive research, the precise molecular mechanisms underlying PD remain elusive, with genetic and environmental interactions playing critical roles. Understanding the pathophysiology of PD—including emerging insights into mitochondrial dysfunction, neuroinflammation, and novel genetic risk factors—is of paramount importance. A pressing concern is the variability in disease progression and treatment response. While current treatments offer symptom management, breakthroughs in gene therapy, neuroprotective agents, and precision medicine are reshaping the landscape. Additionally, the integration of machine learning and artificial intelligence in predicting disease onset, progression, and treatment outcomes holds transformative potential. We invite original research and comprehensive reviews that uncover novel molecular targets, refine diagnostic biomarkers, and advance AI-driven predictive models to revolutionize PD care and improve patient outcomes.

Guest Editor

Prof. Dr. Stergios Boussios

1. Department of Medical Oncology, Ioannina University Hospital, Ioannina, Greece
2. Faculty of Medicine, School of Health Sciences, University of Ioannina, Ioannina, Greece
3. AELIA Organization, 9th Km Thessaloniki-Thermi, 57001 Thessaloniki, Greece
4. Faculty of Medicine, Health and Social Care, Canterbury Christ Church University, Canterbury, UK
5. School of Cancer and Pharmaceutical Sciences, Faculty of Life Sciences and Medicine, King's College London, London, UK
6. Kent and Medway Medical School, University of Kent, Canterbury, UK
7. Department of Research and Innovation, Medway NHS Foundation Trust, Gillingham, UK

Deadline for manuscript submissions

20 September 2026



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/231615

*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)* 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 (Organic Chemistry)