

Special Issue

Biomolecular Basis of Life Processes

Message from the Guest Editor

The phenomenon of life is an extraordinary challenge for modern science. Energy metabolism is the basis of all biological processes occurring in living organisms. Maintaining a balanced energy metabolism is therefore one of the pillars of life. In addition, the proper functioning and health of a human being depend on the ability of their body to obtain several essential nutrients and trace elements from the environment, which allow for maintaining homeostasis at the cellular and tissue level. A special role here is played by calcium and phosphate signaling. An important but so far underestimated attribute of life is the adaptation of a living organism to the natural environment and its interaction with the intestinal and epithelial microbiota. In recent years, the problem of the role of motor activity has also emerged and in particular bone–muscle interaction and cellular turnover. Disturbances and the dysregulation of all these processes underlie the pathology of old age: metabolic syndrome and cancer. Our holistic approach to the problems of aging and geriatric problems will allow modern medicine to improve the quality of life of the rapidly aging human population.

Guest Editor

Prof. Dr. Janusz Błaszczyk

Jerzy Kukuczka Academy of Physical Education, 40-065 Katowice, Poland

Deadline for manuscript submissions

20 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/217690

*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)