

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

closed (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*
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MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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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

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