



## Polymers in Biological Systems

Guest Editor:

**Dr. Anton P. Bonartsev**

Faculty of Biology, M. V.  
Lomonosov Moscow State  
University, 119234 Moscow,  
Russia

Deadline for manuscript  
submissions:

**closed (20 November 2024)**

### Message from the Guest Editor

Dear Colleagues,

Polymers of natural origin, which are synthesized by bacteria, fungi, plants, and animals, may not necessarily be proteins and nucleic acids. The natural properties of biopolymers are closely connected with their natural functions in alive cells and tissues. Some chemically synthesized polymers show biomimetic physicochemical properties of natural polymers and therefore exhibit similar bioactivity in natural and artificial biological systems of different levels. These natural and synthetic polymers have great prospects for biomedical applications due to their unique biomedical properties: biomechanical properties, chemical reactivity, antioxidant activity, etc., which can be associated with their natural functions or biomimetic properties. This open access Special Issue will highlight the very urgent problem of the natural–biomedical properties relationship for different polymers. Therefore, the scope of the Special Issue is to summarize original research and review articles that address the progress in and current standing of the natural functions as well as biomedical properties of polymers in biological systems.

Dr. Anton Bonartsev  
Guest Editor





an Open Access Journal by MDPI

## 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

## 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.

## 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)

## Contact Us

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI