



## From Nanotechnology to Nanomedicine: Past, Present and Future

Guest Editor:

**Dr. Morozova Olga**

Federal Research and Clinical  
Center of Physical-Chemical  
Medicine of Federal Medical  
Biological Agency, 119435  
Moscow, Russia

Deadline for manuscript  
submissions:

**closed (29 February 2024)**

### Message from the Guest Editor

There are two ways of transferring information: 1) chronological, as a gradual evolutionary accumulation of knowledge and 2) logical, which ranges from strict definitions to simple theory and more general concepts. Despite advances in nanotechnology and medical nanomaterials, there is no future without the past. The rapid progress in biopolymer isolation (proteins, polysaccharides, polyhydroxyalkanoates, polyphenols and nucleic acids) from natural sources, the chemical synthesis of novel biomimetics (nucleotides, amino acids, polymers and artificial enzymes) and composite materials (glycoproteins, proteoglycans, lipopolysaccharides and so on) as well as construction of inorganic and organic nanomaterials and even semisynthetic organisms (bacteria with six nucleotide bases instead of the classical four that encode 152 amino acids) open up new opportunities to attain higher levels of medicine and accelerate further development. Comparative analysis of the advantages and disadvantages of nanostructures for medical diagnostics, vaccines and treatment could greatly benefit the scientific community.





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 & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

## Contact Us

---

*International Journal of Molecular  
Sciences*  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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

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