



## Molecular Biological Applications of Nanomaterials

Guest Editor:

**Dr. Vijayakumar Sekar**

Marine College, Shandong  
University, Weihai 264209, China

Deadline for manuscript  
submissions:

**31 January 2025**

### Message from the Guest Editor

Dear Colleagues,

Nanomaterials, such as nanoparticles, nanorods, nanoshells, dendrimers, and nanofibers, exhibit distinct physical, chemical, and biological characteristics as a result of their very small size. These characteristics include a significant ratio of surface area to volume, adjustable optical and electrical properties, and the capability to engage with biological molecules on a molecular scale. Nanomaterials possess certain characteristics that make them very appropriate for a wide range of applications in the field of molecular biology. Nanomaterials have become a revolutionary category of materials because of their distinct characteristics and adaptable uses. Nanomaterials have significant potential to greatly transform diagnostics, treatments, and basic biological research in the field of molecular biology. The aim of this Special Issue is to investigate the many applications of nanomaterials in the field of molecular biology, with a particular focus on their existing usage, prospective advantages, toxicology to human beings, animals, and the environment, as well as future possibilities.





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 (Inorganic 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