Special Issue

Molecular Biological Applications of Nanomaterials

Message from the Guest Editor

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.

Guest Editor

Dr. Vijayakumar Sekar Marine College, Shandong University, Weihai 264209, China

Deadline for manuscript submissions

closed (11 April 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/213761

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





International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





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)

