

## Special Issue

# Molecular Applications of Nanoparticles in Cancer Therapy

### Message from the Guest Editors

Cancer remains one of the most pressing global health challenges and a leading cause of mortality worldwide. In this context, nanotechnology (particularly nanomedicine) offers a transformative platform for addressing these challenges, unlocking novel opportunities to combat this devastating disease. Nanomaterials hold immense promise, serving either as therapeutic agents themselves (e.g., by transforming electromagnetic energy into heat for cancer ablation) or as vehicles to enhance the tumor-specific targeting of therapeutic payloads. Moreover, nanotechnology enables groundbreaking approaches to modulate molecular pathways in cancer, either by directly targeting cancer cells or by reshaping the tumor microenvironment, including the intricate crosstalk between cancer cells and associated stromal cells. The purpose of this Special Issue is to establish a research forum dedicated to advancing our understanding of how nanoparticles influence molecular pathways in cancer, with the aim of addressing the current challenges and limitations in this field and fostering new insights into the mechanisms underlying nanoparticle-based cancer therapies.

### Guest Editors

Dr. Carlos Caro

BIONAND—Centro Andaluz de Nanomedicina y Biotecnología (Junta de Andalucía–Universidad de Málaga), C/Severo Ochoa, 35, 29590 Málaga, Spain

Prof. Dr. Iñigo Martínez-Zubiaurre

Department of Clinical Medicine, Faculty of Health Sciences, UiT The Arctic University of Norway, P.O. Box 6050, Langnes, 9037 Tromsø, Norway

### Deadline for manuscript submissions

closed (20 May 2026)



## International Journal of Molecular Sciences

an Open Access Journal  
by MDPI

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/230146](https://mdpi.com/si/230146)

*International Journal of  
Molecular Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto:ijms@mdpi.com)

[mdpi.com/journal/  
ijms](https://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



[mdpi.com/journal/  
ijms](https://mdpi.com/journal/ijms)



## About the Journal

### Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* 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, and molecular biophysics. *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. 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

---

### 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, CAPus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)