

## Special Issue

# Biomedical Applications of Mesenchymal Stem Cells

### Message from the Guest Editors

Mesenchymal stem cells (MSCs) are characterized by their multipotent differentiation ability. In fact, they can give rise to endodermal and ectodermal cells other than those of the mesodermal variety. Moreover, they have antioxidant and anti-inflammatory properties. For these reasons, MSCs can be suitable for cell-based therapeutic strategies, especially in molecular pathologies where pharmacological treatments produce poor results. The molecular mechanisms of MSC-induced beneficial effects include neurogenesis, osteogenesis, chondrogenesis, and angiogenesis stimulation, as well as immunomodulatory, anti-inflammatory, and antiapoptotic actions. Moreover, the paracrine release of growth factors and cytokines, mainly delivered at damaged regions, may help to restore tissue homeostasis. This Special Issue entitled “Biomedical Applications of Mesenchymal Stem Cells” focuses on the role of MSCs in damaged tissue repair and its molecular regulatory mechanism. We welcome submissions of original papers and reviews based on results from molecular viewpoints.

### Guest Editors

Dr. Giuliana Mannino

Department of Medicine and Surgery, University of Enna “Kore”, 94100 Enna, Italy

Dr. Debora Lo Furno

Department of Biomedical and Biotechnological Sciences, Section of Physiology, University of Catania, Via S. Sofia 97, 95123 Catania, Italy

### Deadline for manuscript submissions

closed (30 December 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/206950](https://mdpi.com/si/206950)

*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)