

## Special Issue

# From Molecular Mechanisms to Therapy: Novel Insight on Musculoskeletal System

### Message from the Guest Editors

Advancements in fields such as stem cell biology, genomics, developmental biology, and molecular genetics are all contributing to advancements in our understanding of basic pathological conditions involving musculoskeletal system. Regenerative medicine and its applications for the musculoskeletal system in order to replace, repair, and promote tissue regeneration have received increased interest over the last decade. Especially, mesenchymal stem cells (MSCs). Recent literature data have focused the attention to several bioactive factors produced by MSCs including cytokines, growth factors, microRNAs, proteasomes, and exosomes that play an important role in the regulation of numerous physiological processes. This Special Issue will focus on recent advances that aim to understand better the molecular processes underlying the available technologies and the development of new therapeutic approaches. Original research articles, comprehensive reviews, and short communications related to this topic are all welcome.

### Guest Editors

Dr. Gianluigi Pasta

Department of Orthopedic Surgery, IRCCS Fondazione Policlinico San Matteo, 27100 Pavia, Italy

Dr. Antonio Pompilio Gigante

Clinical Orthopaedics, Department of Clinical and Molecular Science DISCLIMO, Università Politecnica Delle Marche, 60126 Ancona, Italy

### Deadline for manuscript submissions

closed (15 September 2023)



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 8.1  
Indexed in PubMed



[mdpi.com/si/119786](https://mdpi.com/si/119786)

*International Journal of  
Molecular Sciences*  
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 8.1  
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*, 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 (Inorganic Chemistry)