

## Special Issue

# Recent Advances in Regenerative and Anti-Aging Medicine

### Message from the Guest Editor

Recent advances in regenerative and anti-aging medicine are accelerating through cutting-edge technologies like tissue engineering, stem cell therapy, and gene editing. Stem cells, particularly induced pluripotent stem cells (iPSCs) and mesenchymal stem cells (MSCs), are being used to regenerate damaged tissues and organs. Gene editing tools such as CRISPR-Cas9 enable precise correction of genetic mutations linked to aging and age-related diseases. Extracellular vesicles and secretomes are emerging as promising cell-free therapies to enhance healing and regeneration. Developments in biomaterials, 3D bioprinting, and organoid technology have improved tissue scaffolding and organ repair. Breakthroughs in senolytics, which target and remove senescent cells, offer new strategies to combat aging and chronic inflammation. Ongoing research and clinical trials are crucial to translating these innovations into mainstream medicine.

Collectively, these advances are reshaping regenerative and anti-aging strategies, moving closer to extending healthy lifespan and improving overall quality of life.

### Guest Editor

Prof. Dr. Takayuki Yoshimoto

Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University, 6-1-1 Shinjuku, Shinjuku-ku, Tokyo 160-8402, Japan

### Deadline for manuscript submissions

28 February 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/252550](https://mdpi.com/si/252550)

*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*, 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)