



## Advances in Mesenchymal Stem Cells Volume II

Guest Editor:

**Dr. Huseyin Sumer**

Department of Chemistry and  
Biotechnology, Swinburne  
University of Technology,  
Hawthorn, VIC 3122, Australia

Deadline for manuscript  
submissions:

**closed (31 October 2023)**

### Message from the Guest Editor

Dear Colleagues,

Mesenchymal stem cells (MSCs) are multipotent stem cells derived from mesenchyme, which develops from the mesoderm. MSCs are capable of self-renewal and differentiation into skeletal and connective tissues such as bone, fat, cartilage and muscle. The main roles of resident MSCs in adults are self-repair and the maintenance of cellular tissue homeostasis. MSCs are considered to be ideal candidates for tissue regeneration and tissue engineering, and interest in their biological roles and clinical potential has dramatically increased over the previous few decades. MSCs can be effective in the modulation of immune responses, anti-inflammatory affect, tissue repair and regeneration in many therapeutic applications, both in vitro and in vivo.

This Special Issue will provide evidence-based analyses and overviews of recent advances in MSCs and nanotechnology. This Issue invites original research articles and reviews that cover MSCs secretomes/exosomes or EVs and their impact, biomolecules and markers of MSCs, the cultivation and differentiation of MSCs and nanotechnology or biomaterials, signalling pathways, and functional genomics.

Dr. Huseyin Sumer  
*Guest Editor*



[mdpi.com/si/170611](https://mdpi.com/si/170611)

# Special Issue



an Open Access Journal by MDPI

## Editors-in-Chief

**Prof. Dr. Peter E. Nielsen**

Department of Cellular and  
Molecular Medicine, Faculty of  
Health and Medical Sciences,  
University of Copenhagen,  
Blegdamsvej 3C, DK-2200  
Copenhagen, Denmark

**Prof. Dr. Lukasz Kurgan**

Department of Computer  
Science, Virginia Commonwealth  
University, Richmond, VA 23284,  
USA

## Message from the Editorial Board

*Biomolecules* is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

## 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, MEDLINE, PMC, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (*Biochemistry & Molecular Biology*) / CiteScore - Q1 (*Biochemistry*)

## Contact Us

*Biomolecules* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/biomolecules](http://mdpi.com/journal/biomolecules)  
[biomolecules@mdpi.com](mailto:biomolecules@mdpi.com)  
[X@Biomol\\_MDPI](https://twitter.com/Biomol_MDPI)