Special Issue

The Role of Albumin in Tissue Regeneration and Repair

Message from the Guest Editor

Tissue regeneration and repair are essential processes in regenerative medicine, aiming to restore the structure and function of damaged tissues. Albumin exhibits excellent biocompatibility, biodegradability, and the ability to interact with cells and growth factors, making it an attractive choice for tissue engineering applications. Researchers have successfully engineered albumin-based scaffolds, nanoparticles, and hydrogels with tailored mechanical properties, controlled release kinetics, and the ability to support cell adhesion and proliferation. Moreover, in preclinical models, albumin-based systems have demonstrated the potential to promote tissue-specific cell differentiation, stimulate angiogenesis, and accelerate tissue regeneration. However, there are still important questions that need to be addressed. Such as the precise mechanisms by which albumin enhances tissue regeneration, the design and functionalization of albumin-based bioengineered materials, and so on. Addressing these gaps will pave the way for developing novel albumin-based bioengineered materials with enhanced regenerative capabilities, ultimately advancing the field of tissue regeneration and repair.

Guest Editor

Dr. Denes B. Horvathy
Department of Interventional Radiology, Semmelweis University, Budapest, Hungary

Deadline for manuscript submissions

closed (20 April 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/176389

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

mdpi.com/journal/ijms

MDPI

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

MDPI

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)