Special Issue

The Application of Scaffolds in Bone Tissue Engineering

Message from the Guest Editors

Bone tissue engineering is a crucial when the self-regenerative nature of bone is insufficient to overcome severe tissue defects. Approaches to bone tissue regeneration usually involve the application of biomaterials, cells and growth factors to produce augmentative bone scaffolds. Detailed research is crucial in the development of three-dimensional scaffolds with novel compositions, targeted functions, appropriate mechanical properties and adequate interactions with cells.

This Special Issue, entitled "The Application of Scaffolds in Bone Tissue Engineering", aims to highlight recent advances in the development of scaffolds for bone regeneration. The preparation, physiochemical characterization and biological response of diverse biomaterials will be addressed, including the modification of the metals and ceramics traditionally employed in medical devices, as well as biopolymers, bioglasses, bioceramics and their composites. We hope that this Special Issue will contribute to further advancements in this interdisciplinary field spanning materials, biological and medical sciences, and engineering disciplines.

Guest Editors

Dr. Leonard Bauer

Faculty of Chemical Engineering and Technology, University of Zagreb, Trg Marka Marulića 19, HR-10001 Zagreb, Croatia

Prof. Dr. Jidong Li

Research Center for Nano-Biomaterials, Analytical and Testing Center, Sichuan University, Chengdu, China

Deadline for manuscript submissions

31 December 2025



Journal of Functional Biomaterials

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 6.8 Indexed in PubMed



mdpi.com/si/244265

Journal of Functional Biomaterials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ifb@mdpi.com

mdpi.com/journal/ jfb





Journal of Functional Biomaterials

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 6.8 Indexed in PubMed





Message from the Editor-in-Chief

The biomaterials field is one of the largest and fastest growing research areas both in the scientific community and in the industrial one. Biomaterials are the result of collaborations between different disciplines: chemistry, medicine, pharmacology, engineering and biology. The objective of this collaboration is to lead to the implementation of new devices to restore form and human body functions. The mission of the Journal of Functional Biomaterials (JFB) is to focus attention on physico-chemical characteristics and their importance in the interactions between biomaterials and living tissues. JFB seeks to publish studies on the preparation, performance and use of biomaterials in biomedical devices, as well as regarding their behavior in physiological environments. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Pankaj Vadgama

School of Engineering and Materials Science, Queen Mary University of London, London, UK

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, Embase, Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Engineering, Biomedical) / CiteScore - Q2 (Biomedical Engineering)

