Special Issue

Advanced Functional Biomaterials in Regenerative Medicine

Message from the Guest Editors

Despite all advancements in implant design and surgical techniques, up to 10% of all broken bones worldwide still do not heal properly. The costs associated with this are enormous, weighing equally on social security spending and patient wellbeing. Although significant advances have been achieved in the last few decades in the development of new materials to overcome bone and wound healing disorders, there remains a high unmet medical need to bridge the gap in unhealed fractures. We are aiming to gather new ideas here to develop new biomaterials that can promote bone and tissue regeneration. This can be achieved through, e.g., functional adaptation of biomaterial design; improved adjustment of mechanical properties; changes in surface structures, internal porosity, or the material property itself, active drug, synthetic mRNA, or exosome release from the implant, etc., as they can directly affect the surrounding cell response (such as cell adhesion, proliferation, differentiation, etc.). Other topics include new biomaterials to improve clinical diagnosis of non-unions, treatment strategies, and early identification of risk patients.

Guest Editors

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Deadline for manuscript submissions

31 August 2025

Journal of Functional Biomaterials

an Open Access Journal by MDPI

Impact Factor 5.2
CiteScore 6.8
Indexed in PubMed

mdpi.com/si/134322

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About the Journal

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

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