

Special Issue

Biomedical Applications of Hydrogels: Current Status and Advances

Message from the Guest Editors

Recent advances in polymer chemistry, crosslinking strategies, and fabrication methods have enabled the creation of hydrogel systems with improved stability, responsiveness, and precise control over biochemical and physical cues. This Special Issue aims to gather original research articles and reviews on recent progress and emerging trends in the biomedical applications of hydrogels, spanning design, characterization, and translational validation. Topics of interest include hydrogels for drug/gene delivery, wound healing, tissue engineering and regenerative medicine, 3D bioprinting, and biosensing, with particular attention to injectable/in situ forming, stimuli-responsive, and multifunctional systems (e.g., self-healing, adhesive, conductive, antimicrobial, immunomodulatory). Contributions addressing in vivo performance, biocompatibility, and clinical and industrial translation are welcome.

Guest Editors

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Deadline for manuscript submissions

30 September 2026



Journal of Functional Biomaterials

an Open Access Journal
by MDPI

Impact Factor 5.9
CiteScore 9.7
Indexed in PubMed



mdpi.com/si/277399

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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

Prof. Dr. Pankaj Vadgama

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