

Special Issue

Functional Natural, Hybrid and Bioinspired Biomaterials for Biomedical Applications

Message from the Guest Editors

Natural and bioinspired materials have emerged as transformative platforms for developing next-generation biomaterials with tunable physicochemical and biological properties. This Special Issue will highlight recent advances in the design, synthesis, characterization, and biomedical applications of functional natural, hybrid, and bioinspired biomaterials for wound healing, tissue regeneration and drug delivery. Particular attention will be paid to naturally derived polymers (such as chitosan, silk fibroin, collagen, gelatin, alginate, and hyaluronic acid, among others) and their hybrid systems with synthetic polymers, nanoparticles, or lipid-based carriers. Topics of interest include novel biofabrication methods, chemical and physical modification techniques, and multifunctional designs that enhance biocompatibility, antibacterial activity, and controlled release performance. Studies focusing on mechanistic insights, structure–function relationships, and translational potential in regenerative medicine and therapeutic delivery are especially encouraged. Both original research articles and comprehensive reviews are welcome.

Guest Editors

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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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