Special Issue

Multifunctional Bio-Scaffolds for Cell Growth and Tissue Morphogenesis

Message from the Guest Editors

Advanced tissue engineering strategies aim to restore the functionalities of damaged and/or dysfunctional tissues and organs by the sapient combination and integration of biomaterials, cells, and bioactive molecules. The synergy and interplay among these three elements contribute to the truthful formation of mechanically stable and biochemically functional biodegradable and bioactive scaffolds (bio-scaffolds) toward new tissue growth and morphogenesis. The aim of this Special Issue is to collect articles presenting state-of-the-art knowledge on bioscaffold design. processing, and validation as shared by experts in these research fields. Special emphasis will be devoted to cutting-edge research regarding technological advancements of (i) biomaterial (e.g., biodegradable polyesters and hydrogels) design and processing with micro- and nanometric scale control of biochemical and architectural properties; (ii) bioactive molecule (e.g., growth factor) loading and release from bioscaffolds; (iii) cell behavior and tissue morphogenesis within bioscaffolds.

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Deadline for manuscript submissions

closed (30 June 2025)



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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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