Special Issue

Materials and Techniques for Bone Tissue Engineering: From Scaffolds to Complex Matrices

Message from the Guest Editors

Bone tissue engineering has evolved significantly in recent years, moving from conventional scaffold-based approaches to the development of complex matrices that better mimic the hierarchical and functional properties of native bone tissue. This Special Issue aims to gather cutting-edge research on the design, fabrication, and characterization of scaffolds and advanced matrices for bone regeneration. The scope of this Special Issue includes, but is not limited to, the following topics: the selection of biomaterials, 3D bioprinting, biofabrication strategies, nanomaterials, functionalization with bioactive molecules, and the integration of mechanical and biological cues to enhance the osteogenic potential. By assembling high-quality research articles and reviews, this Special Issue will provide valuable insights into the future of bone tissue engineering, highlighting innovations that could accelerate clinical applications and enhance patient outcomes.

Guest Editors

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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

Prof. Dr. Pankaj Vadgama
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