Special Issue

Advances in Bone Substitute Biomaterials

Message from the Guest Editors

A major challenge in orthopaedics today is the development of suitable osteobiological materials that can replace conventional allografts, autografts and xenografts and thus serve as implant materials for bone repair, bone remodelling or bone replacement. Over the past ten years, significant progress has been made in the field of bone replacement materials and their production through additive manufacturing. These developments focus on the improved use of osteoinduction, osteoconduction and stem cells in the context of bone tissue engineering. Despite these advances, the use of autologous bone grafts remains the gold standard in daily clinical practice. This Special Issue will include current insights into the biology of bone graft substitutes and advances in manufacturing technology, including personalized approaches. Various aspects will be highlighted, including new materials, their interactions with biological systems, production methods such as additive manufacturing/3D printing, osteoconduction, surface modifications, and osteoinduction. We hereby invite you to submit a manuscript for this Special Issue. Full articles, communications and 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

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