



## Functionalization of Scaffolds Qualified for Bone and Cartilage Regeneration

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### Message from the Guest Editor

Based on its regenerative microenvironment, bone, including its marrow, is the only tissue that possesses the ability to heal without any post-damage fibrous tissue (scarring). Bone substitute materials are frequently applied in the field of orthopedics. In contrast, the development of scaffolds, which enable cartilage regeneration, remains in its infancy. Many promising approaches have failed in their clinical applications, but new technologies offer hope for the future as methods that can be used to create safe joints and prevent total joint replacement. The physicochemical properties of the materials qualified for bone or cartilage regeneration play crucial roles in protein binding, cellular adherence and differentiation and, thus, local bone/cartilage healing. This Special Issue explores aspects of the current research on bone and cartilage substitute materials, places particular emphasis on the biofunctionalization of scaffolds by cytokines, growth factors and cells. It is our hope that the research papers contained within it will stimulate and motivate future research in this important field.





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## Editor-in-Chief

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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.

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