

Special Issue

Multifunctional Biomaterials for Volumetric Muscle Loss

Message from the Guest Editors

Musculoskeletal trauma often disrupts intramuscular neural and vascular networks to denervate existing motor units and causes fibrosis and inflammation, hindering muscle mass, strength, and size recovery. While current scaffolds for muscle repair can enhance myogenesis and myofiber repair, they lack the ability to promote reinnervation alongside angiogenesis and often do not possess anti-inflammatory and antifibrotic properties. This call for papers seeks submissions on multifunctional scaffolds that can not only enhance muscle repair but also promote other processes critical for recovery, such as reinnervation, angiogenesis, and/or modulation of inflammation and fibrosis. We invite review articles and original research describing the design and application of such scaffolds for muscle recovery post-injury.

Guest Editors

Dr. Koyal Garg

Dr. Michael J. McClure

Dr. Jonathan Grasman

Deadline for manuscript submissions

closed (31 March 2025)



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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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