

Special Issue

Molecular Mechanisms and Biological Procedures of Biomaterials in Medical Applications

Message from the Guest Editor

Biomaterials have emerged as a potentially powerful paradigm in clinical medicine due to their unique physicochemical properties. Many efforts have been made to explore various avenues to process tailored nanomaterials for medical applications, including regenerative medicine, therapeutic delivery and additive manufacturing. Intriguingly, many studies have identified the existence of bio–nano interactions, which play important roles in biological procedures. Furthermore, biomaterials with diverse physical and/or chemical characteristics will induce different biological effects. The molecular mechanisms and biological procedures of biomaterials in medical applications include the technologies for processing biomaterials, techniques for characterizing physicochemical properties and analyzing bio–nano interactions, biological behaviors and mechanisms, indications for medical applications etc.

This Special Issue aims to collect articles on topics that include, but are not limited to, biological procedures induced by biomaterials, interactions between biomaterials and biological cells, medical applications of biomaterials etc.

Guest Editor

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Deadline for manuscript submissions

closed (30 April 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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