



Advancing Medical Implants by Surface Nanoengineering and Functionalization

Guest Editors:

Prof. Dr. Dusan Losic

School of Chemical Engineering
and Advanced Materials, The
University of Adelaide, Adelaide,
SA 5005, Australia

Prof. Dr. Elena Ivanova

School of Science, STEM College,
RMIT University, Melbourne, VIC
3000, Australia

Deadline for manuscript
submissions:

closed (31 December 2023)

Message from the Guest Editors

Medical implants, designed to permanently or temporarily replace or heal non-functional tissues or organs, monitor disease, or provide therapeutic support, have become a common worldwide healthcare practice in modern society that is highly impacted by the ageing population and the increase in the life expectancy. The new nanoengineered implants will provide novel solutions by developing a more desirable new generation of medical implants to control the physicochemical, biological, structural, and mechanical microenvironment and tissue regeneration.

It is our great pleasure to invite experts in this field to submit a manuscript (full research papers, review articles, opinions, and communications) for this Special Issue covering broad aspects of metallic medical implants including dental and orthopaedic implants, their manufacturing and processing (conventional and 3D printing), surface and structural nanoengineering, chemical functionalization, and functional coatings for improving their antibacterial, bio-integration, and other properties with new emerging approaches combining drug delivery, sensing, and other functions.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Pankaj Vadgama

School of Engineering and
Materials Science, Queen Mary
University of London, London, UK

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, Inspec, CAPlus / SciFinder, AGRIS, and other databases.

Journal Rank: JCR - Q1 (Engineering, Biomedical) / CiteScore - Q2 (*Biomedical Engineering*)

Contact Us

Journal of Functional Biomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/jfb
jfb@mdpi.com
[X@JFB_MDPI](https://twitter.com/JFB_MDPI)