

Special Issue

Advanced Biomaterials and Biotechnology: Applications in Dental Medicine—2nd Edition

Message from the Guest Editors

Dental biomaterials play an important role in the reconstruction of damaged oral hard and soft tissues, encompassing the fields of periodontology, endodontics, oral surgery, and ultimately attempting the replacement of the whole tooth organ. Biomaterials have evolved from simply replacing the damaged tissue to allowing the 3D development of structurally complex regenerated tissue. The development of biotechnology applications in dentistry has achieved its goal regarding the implementation of biomaterials in order to replace oral tissue, including various novel approaches such as biomimetics and nano-biotechnology.

This Special Issue aims to provide an updated outlook on the applications of advanced biomaterials and biotechnologies in dentistry. Research articles, reviews, and communications are all welcome for submission. Potential topics include, but are not limited to:

- Advanced biomaterials for dental applications;
- Biotechnology applications in dental medicine;
- Role of scaffolds in dental tissue regeneration;
- Polymers applications in regenerative medicine;
- Current applications of 3D bioprinting in dentistry;
- Future perspectives of 4D bioprinting in dentistry.

Guest Editors

Prof. Dr. Lavinia Cosmina Ardelean

Department of Technology of Materials and Devices in Dental Medicine, “Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania

Prof. Dr. Laura-Cristina Rusu

Department of Oral Pathology, Multidisciplinary Center for Research, Evaluation, Diagnosis and Therapies in Oral Medicine, “Victor Babes” University of Medicine and Pharmacy Timisoara, 300041 Timisoara, Romania

Deadline for manuscript submissions

closed (28 February 2026)



Journal of Functional Biomaterials

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 6.8
Indexed in PubMed



mdpi.com/si/199098

Journal of Functional Biomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jfb@mdpi.com

mdpi.com/journal/

[jfb](#)





Journal of Functional Biomaterials

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 6.8
Indexed in PubMed



mdpi.com/journal/

[jfb](https://mdpi.com/journal/)



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

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, Ei Compendex, Inspec, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Engineering, Biomedical) / CiteScore - Q2 (Biomedical Engineering)