

## Special Issue

# Osteoarthritis: Recent Advances in Biomaterials for Diagnosis and Treatment

### Message from the Guest Editors

Osteoarthritis (OA) is a major health problem with increasing prevalence and incidence. Improving the diagnosis and treatment of OA is crucial to alleviate the burden of this debilitating condition. Recent research in this field has focused on developing new diagnostic tools, including imaging techniques and biomarkers. Significant advances have been made in developing novel biomaterials and therapeutic approaches, such as injectable therapies such as hyaluronic acid, or other polymers with platelet-rich plasma, and regenerative medicine methodologies like stem cell therapy and tissue engineering. These biomaterials have shown promising results in reducing pain and inflammation, improving joint function, and promoting cartilage repair in OA patients. Biologics, small molecules, and gene therapy also hold promise for the future.

This Special Issue is a valuable resource for healthcare professionals and students interested in advancing their understanding of OA and developing new research methods and biomaterials-based solutions to enhance patient outcomes.

---

### Guest Editors

Dr. Cristiana Gonçalves  
Prof. Dr. Rui L. Reis  
Dr. Joaquim Miguel Oliveira

---

### Deadline for manuscript submissions

closed (20 August 2024)



## Journal of Functional Biomaterials

---

an Open Access Journal  
by MDPI

---

Impact Factor 5.2  
CiteScore 6.8  
Indexed in PubMed



[mdpi.com/si/172893](https://mdpi.com/si/172893)

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

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

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





# Journal of Functional Biomaterials

---

an Open Access Journal  
by MDPI

---

Impact Factor 5.2  
CiteScore 6.8  
Indexed in PubMed



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