

## Special Issue

# Bio-Nano Interfaces: From Biosensors to Nanomedicines

### Message from the Guest Editors

New biomarkers associated with different diseases are urgently needed to improve patient survival. Biomolecules allow for determining the optimal treatment, establishing a clinical diagnosis and enabling clinical prognosis in neurological, cardiovascular and infectious diseases, as well as in cancer. Highly promising strategies to detect specific biomarkers often rely on the design of specific biosensors; these techniques are expected to improve sensitivity, selectivity, reproducibility and response time. Clinical and non-clinical biosensors can be categorized into different types of detection. They use enzymes, cells, antibodies, DNA, nanoparticles or the pathogenic agent itself, such as bacteria or viruses, to enact their effects. This paves the way for a plethora of different applications, including the use of biosensors in diagnostic kits for SARS-CoV-2 detection. This Special Issue will explore the intersection between nanosciences, biology and medicine, presenting various research approaches to biosensors' application in clinical diagnosis and care, including their fabrication, accompanying challenges and future trends in their development.

### Guest Editors

Dr. Filomena A. Carvalho

Instituto de Medicina Molecular, Faculdade de Medicina, Universidade de Lisboa, Lisbon, Portugal

Prof. Dr. Nuno C. Santos

Instituto de Medicina Molecular, Faculdade de Medicina, Universidade de Lisboa, 1649-028 Lisbon, Portugal

### Deadline for manuscript submissions

closed (30 September 2023)



## Biomedicines

an Open Access Journal  
by MDPI

Impact Factor 3.9  
CiteScore 6.8  
Indexed in PubMed



[mdpi.com/si/117321](https://mdpi.com/si/117321)

*Biomedicines*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomedicines@mdpi.com](mailto:biomedicines@mdpi.com)

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





# Biomedicines

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.9  
CiteScore 6.8  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

*Biomedicines* (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to *Biomedicines*, be it original research, review articles, or developing Special Issues of current key topics.

---

### Editor-in-Chief

Prof. Dr. Felipe Fregni

1. Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPLus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (Medicine (miscellaneous))

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).