



an Open Access Journal by MDPI

# **Multifunctional Bioscaffolds for Biomedical Applications**

Guest Editors:

#### Dr. Silvia Barbon

Section of Human Anatomy, Department of Neuroscience, University of Padova, 35121 Padova, Italy

#### Dr. Silvia Todros

Department of Industrial Engineering, Centre for Mechanics of Biological Materials, University of Padova, Via Venezia 1, 35131 Padova, Italy

Deadline for manuscript submissions: **30 November 2024** 

### Message from the Guest Editors

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- The standardization of advanced strategies for multifunctional bioscaffold production;
- The development of 3D-printed bioscaffolds with controlled geometry and biomimetic structures;
- The invitro characterization of scaffold morphology and ultrastructure, also in comparison with the native anatomy of the tissue to be replaced;
- The biomechanical response of scaffolds under loading conditions that simulate in vivo mechanical stimuli (e.g., tensile or compressive strain, multiaxial loading, friction, and wear behavior);
- The investigation of scaffold cytotoxicity and cellscaffold interactions;
- The development of bioreactors for the mechanical stimulation of scaffolds during cell culture;
- The in vivo assessment of scaffold biocompatibility and therapeutic potential by using animal models of organ/tissue damage;
- The application of multifunctional biomaterials in a clinical setting.

We look forward to receiving your contributions.





mdpi.com/si/206192





an Open Access Journal by MDPI

### **Editor-in-Chief**

#### Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

#### Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

### **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, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Inorganic Chemistry)

## **Contact Us**

International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/ijms ijms@mdpi.com X@IJMS\_MDPI