

Topical Collection

Applications of Biomaterials in Medicine

Message from the Collection Editors

Biomaterials have emerged as a cornerstone of modern medicine, driving innovation across prevention, diagnosis, therapy, and regenerative healthcare. Advances in materials science, chemistry, and bioengineering now enable the design of biomaterials with highly controlled physicochemical and biological properties. This Topical Collection provides a focused platform for publishing studies that demonstrate the potential and versatility of biomaterials in medical practice. We welcome contributions spanning, but not limited to, the following:

- Tissue engineering and regenerative medicine
- Drug and gene delivery systems
- Medical implants and prosthetics
- Wound healing and tissue repair
- Biosensors and diagnostic platforms
- Patient-specific and personalized therapeutic approaches

Priority will be given to interdisciplinary studies that integrate fundamental science with translational or clinical perspectives. Manuscripts should aim to advance understanding of biomaterial performance, biocompatibility, safety, and long-term functionality, while also addressing current challenges and unmet clinical needs.

Collection Editors

Prof. Dr. Maria Pia Ferraz

1. i3S—Instituto de Investigação e Inovação em Saúde, Universidade do Porto, 4200-135 Porto, Portugal
2. Departamento de Engenharia Mecânica, Faculdade de Engenharia da Universidade do Porto, 4200-465 Porto, Portugal

Prof. Dr. Susana R. Sousa

1. i3S—Instituto de Investigação e Inovação em Saúde, Universidade do Porto, 4200-135 Porto, Portugal
 2. ISEP—Instituto Superior de Engenharia do Porto, Instituto Politécnico do Porto, 4200-072 Porto, Portugal
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Encyclopedia
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
encyclopedia@mdpi.com

[mdpi.com/journal/
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About the Journal

Message from the Editor-in-Chief

Many international journals have proliferated over the last 20 years regarding very specific themes of research. Thus, I am pleased to announce the new open-access MDPI journal *Encyclopedia* to provide a wide audience platform for the presentation of outcomes and methodological approaches of current interest for the scientific community. Social sciences, humanities, physical sciences, engineering, and life sciences are the principal macro-areas of relevance for the journal. On behalf of the Editorial Board, I welcome all to *Encyclopedia* and invite contributions of entry papers to our editorial project.

Editor-in-Chief

Prof. Dr. Raffaele Barretta

Department of Structures for Engineering and Architecture, University of Naples Federico II, Via Claudio, 21-80125 Naples, Italy

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 26.8 days after submission; acceptance to publication is undertaken in 4.5 days (median values for papers published in this journal in the second half of 2025).