



3D Printing Applications in Regenerative Medicine and Biomedical Devices

Guest Editors:

Dr. Jinwoo Lee

1. Department of Molecular
Medicine, College of Medicine,
Gachon University, Incheon,
Republic of Korea
2. Department of Health Sciences
and Technology, GAIHST, Gachon
University, Incheon, Republic of
Korea

Dr. Yongsung Hwang

Department of Integrated
Biomedical Science,
Soonchunhyang University, Asan-
si 31538, Republic of Korea

Deadline for manuscript
submissions:

closed (20 April 2024)

Message from the Guest Editors

This Special Issue focuses on recent advances in 3D printing in regenerative medicine and biomedical devices. Unlike the existing production methods of cutting or removing materials, 3D printing is known as an additive manufacturing technology, which builds three-dimensional (3D) products by stacking many thin layers one by one. In particular, 3D printing technology which uses computer software to design and fabricate the constructs, as well as their internal architectures such as the pore size, pore shape, and porosity, and in which the interconnectivity of the structures can be freely controlled, has taken center stage among regenerative medicine and medical devices. In addition, through the use of patient medical data, this process can also make customized treatment a reality. This Special Issue seeks to publish work on various bio-fabrication technologies in medical applications, including, but not limited to, 3D printing and bioprinting, bio-chip, organ-on-a-chip, organoid, implants, medical devices and surgical simulation tools. Both original research articles and reviews are welcome for this Special Issue.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Pankaj Vadgama

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

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.

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](#), [Inspec](#), [CAPus / SciFinder](#), [AGRIS](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Engineering, Biomedical*) / CiteScore - Q2 (*Biomedical Engineering*)

Contact Us

Journal of Functional Biomaterials
Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/jfb
jfb@mdpi.com
[X@JFB_MDPI](#)