



## Applications of 3D Cell Culture in Biomedicines

Guest Editor:

### Dr. Yoshitaka Miyamoto

Department of Maternal-Fetal  
Biology, National Research  
Institute for Child Health and  
Development, Tokyo, Japan

Deadline for manuscript  
submissions:

**30 November 2024**

### Message from the Guest Editor

Dear Colleagues,

In recent years, research on fabrication and application of living tissues and organs has been widely conducted using 3D culture techniques. In other words, a culture environment similar to a living organism can be reconstructed in vitro and created using MEMS (micro electro mechanical system) technology. In addition, it has been possible to induce pluripotent cells (ES cells and iPSC cells) and tissue stem cells into target 3D models by improving culture methods and conditions. The obtained tissues and organs are expected to be applied in many fields of biomedicine, regenerative therapy, and drug discovery. Here, we call for reports on 'Applications of 3D Cell Culture in Biomedicines' in various fields of biomedicines. Examples of topics of interest include:

- 3D cultures (culture technology, biomaterials, culture device, culture device design, simulation, etc.).
- 3D tissue and organs (biomedicine, regenerative therapy, and drug discovery, in vitro, in vivo, ex vivo).

Therefore, this Special Issue seeks to publish high-quality articles, including original research and reviews.

Dr. Yoshitaka Miyamoto

*Guest Editor*





an Open Access Journal by MDPI

## 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

## 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.

## 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*, *CAPLus / SciFinder*, and other databases.

**Journal Rank:** JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q2 (*Medicine (miscellaneous)*)

## Contact Us

*Biomedicines* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/biomedicines](https://mdpi.com/journal/biomedicines)  
[biomedicines@mdpi.com](mailto:biomedicines@mdpi.com)  
[X@Biomed\\_MDPI](https://twitter.com/Biomed_MDPI)