



Advances and Challenges of Biomodels for Medical Applications

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Message from the Guest Editors

A biomodel is an entity that reproduces the geometry of a biological structure and can be obtained in either physical or virtual forms. To manufacture biomodels, a diversity of additive and subtractive processes exists. Initially, subtractive processes such as computerized numerical control milling were predominant. Nowadays, additive technology has been adopted to manufacture three-dimensional customized physical implants and anatomical models. This Special Issue seeks to gather research papers and review articles focusing on novel manufacturing processes to obtain biomodels, new materials, applications and characterization of biomodels, and both experimental and numerical simulations of flows in biomedical devices.

Keywords

- Manufacturing processes of biomodels
- Additive manufacturing processes of biomodels
- Flows in biomodels
- Biomodels' characterization
- Biomodels' applications
- Biofabrication
- Biosensors
- Three-dimensional bioprinting
- Fabrication of organ-on-a-chip platforms
- Microfluidics in organ-on-a-chip platforms
- Drug delivery in organ-on-a-chip platforms
- Cell culture platforms
- Numerical simulations in biomodels





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Editor-in-Chief

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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.

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