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Functional Biomaterials

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Application of Biomechanical Model on Tissue Engineering

Guest Editors:

Prof. Dr. Valeria Chiono
1. Department of Mechanical and Aerospace Engineering, Politecnico di Torino, Corso Duca Degli Abruzzi 24, 10129 Turin, Italy
2. Interuniversity Center for the Promotion of 3Rs Principle in Teaching and Research, Centro 3R, 56122 Pisa, Italy

Prof. Dr. Jack Adam Tuszynski
Department of Mechanical and Aerospace Engineering, Politecnico di Torino, Corso Duca Degli Abruzzi 24, 10129 Turin, Italy

Deadline for manuscript submissions:
closed (31 August 2020)

Message from the Guest Editors

This Special Issue is dedicated to presenting the role and impact of experimental and computational biomechanics in the engineering of functional tissues. Potential topics include, but are not limited to, the following:

- Biofabrication and bioreactors for functional tissue systems;
- Biofabrication for musculoskeletal tissue engineering;
- Biomaterials and biomechanics;
- Biomechanical microengineering of tissue mimics for human disease modelling;
- Biomechanics of heart valve tissue engineering; muscle, tendon and ligament tissue engineering; pelvic floor/bladder engineering; vascular tissue engineering;
- Functional tissue engineering of bone and cranio-facial; articular cartilage and fibrocartilage;
- Mechanical issues in interfacial tissue engineering;
- Mechanical regulation of stem cell behavior;
- Mechanotransduction in engineered tissue;
- Mechanobiology and tissue engineering of skin; the respiratory tract;
- Mechanobiology of engineered soft tissue growth and remodeling;
- Microfluidics;
- Nanotherapeutics and nanoparticle transport;
- Physical regulators and transport cues in tissue engineering;
- Tools for validating numerical models for tissue engineering;

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Special Issue

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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.

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

Tel: +41 61 683 77 34
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