# Special Issue

# Biofunctionalized Scaffold in Regenerative Medicine

## Message from the Guest Editors

The use of a biofunctionalized scaffold with cells and/or soluble factors has emerged as a promising approach in the field of regenerative medicine. A biomaterial refers to a matrix that provides a specific environment and support growth and development. An ideal scaffold must be biocompatible and non-toxic, and should improve cell viability, cell adhesion, and proliferation. Different scaffolds can be combined with cells, such as mesenchymal stem cells (MSCs) that can promote bone regeneration through the differentiation towards the osteogenic lineage or the release of specific soluble factors, or scaffolds can be primed with soluble molecules, including growth factors that can be delivered in the environment, performing a therapeutic action. The aim of this Special Issue is to give an overview of ongoing scientific research to better understand the molecular mechanisms involved in tissue regeneration and the evaluation of the aptitude of biofunctionalized scaffold for future clinical applications.

## Guest Editors


Dr. Francesca Diomede

Department of Innovative Technologies in Clinical Medicine & Dentistry, University “G. d’Annunzio” Chieti-Pescara, 66100 Chieti, Italy

Dr. Jacopo Pizzicannella

Department of Engeneering and Geology, University “G. d’Annunzio” Chieti-Pescara, 66100 Chieti, Italy


## Deadline for manuscript submissions

closed (31 December 2020)


**Materials**

**an Open Access Journal by MDPI**

**Impact Factor 3.2**
**CiteScore 6.4**
**Indexed in PubMed**

mdpi.com/si/24351

*Materials*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

# Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

MDPI

# About the Journal

## Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

## Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## 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, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:**

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)