Special Issue

Materials for Hard Tissue Repair and Regeneration

Message from the Guest Editor

During tissue repair and regenerative process, stem cells, growth factors, and the extracellular matrix (ECM) constitute the elements needed for cell growth and differentiation. Regarding hard tissue repair and regeneration in a clinical setting, highly biocompatible materials such as hydroxyapatite, tricalcium phosphate (TCP), and titanium as a metal material have been developed and are already used widely. Recently, it has been suggested that not only the composition of the artificial biomaterial but also the optimal geometrical structure is important for inducing cell differentiation and tissue formation. This Special Issue focuses on several aspects of biological response induced by biomaterials in the tissue repair and regeneration process, such as cell differentiation, tissue development, and tissue regeneration ability, and we invite contributions of reviews and original papers reporting on recent efforts in the field of hard tissue regeneration. **Keywords**

- Hard tissue
- regeneration
- biomaterials
- biocompatibility
- implant
- remodeling
- medical
- dental

Guest Editor

Dr. Keisuke Nakano

Department of Oral Pathology and Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama 700-8525, Japan

Deadline for manuscript submissions

closed (31 October 2021)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/30735

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

About the Journal

Message from the Editorial Board

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.

Editors-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

Prof. Dr. Yuguang Ma
State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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)

MDPI