Special Issue

Nanobiomaterials in Microbiology and Immunology

Message from the Guest Editors

The field of nanobiomaterials has developed rapidly and continuously in recent years. Innovative techniques have emerged to facilitate the precise manipulation of materials at the nanoscale, providing diverse applications for the biomedical field. When introducing an external material into the mammalian body, the most important challenge is to determine if the body will develop an immune response. Another challenge that researchers need to face is microbial contamination and biofilm development risk, knowing that microbial adherence is in proportionally inverse ratio with the compatibility of foreign biomaterial with host tissues. It is well known that any material to be introduced into the body needs to be sterile, and accidental microbial colonization must be avoided. Numerous antimicrobial nanosystems have been developed based on materials tailored at the nanoscale. This Special Issue aims to provide an updated collection of papers, showing the most relevant progress made in the field of development and characterization of nanobiomaterials, targeting their applications in different prosthetic or therapeutic device production with anti-inflammatory and antibiofilm properties.

Guest Editors

Dr. Alina Maria Holban

Department of Microbiology, Faculty of Biology, University of Bucharest, 030018 București, Romania

Prof. Dr. Veronica Lazar

Microbiology & Immunology Department, Faculty of Biology, University of Bucharest, Soseaua Panduri nr. 90-92, Sector 5, 050663 Bucharest, Romania

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

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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

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