# **Special Issue**

# Antibacterial Materials: Recent Advances in Methodologies and Regulations

# Message from the Guest Editors

In recent years, the emergence of resistant bacteria has stimulated intensive research in developing antibacterial materials in different fields in order to reduce the spread of antibiotic-resistant bacterial strains. Novel antibacterial materials include a large number of compounds such as nanoparticles, polymers, chemicals, proteins, and enzymes. Moreover, the final antibacterial products that embed the antibacterial compound can have many different shapes. It is difficult to compare the performances of such different materials and applications because cross-method comparisons are currently lacking in the literature. Moreover, the procedures for testing developed in the past are often unsuitable for new antibacterial materials/products, and the scientific soundness of the results can be weak. The conditions for testing required by current regulations should be critically evaluated to assess the limits of their applications. On the other hand, existing procedures for antibacterial testing of materials are usually quite far from real conditions. Simple and affordable methods have to be developed in order to ensure reproducibility and robustness in conditions close to real world.

## **Guest Editors**

## Dr. Claudia Vineis

National Research Council of Italy, Institute of Intelligent Industrial Technologies and Systems for Advanced Manufacturing (CNR-STIIMA), Corso Pella 16, 13900 Biella, Italy

#### Dr. Alessio Varesano

National Research Council, Institute of Intelligent Industrial Technologies and Systems for Advanced Manufacturing (CNR-STIIMA), Corso Giuseppe Pella 16, 13900 Biella, Italy

## Deadline for manuscript submissions

closed (31 December 2024)



# Journal of Functional Biomaterials

an Open Access Journal by MDPI

Impact Factor 5.0 CiteScore 4.6 Indexed in PubMed



## mdpi.com/si/141200

Journal of Functional Biomaterials MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ifb@mdpi.com

mdpi.com/journal/

<u>jfb</u>





# Journal of Functional Biomaterials

an Open Access Journal by MDPI

Impact Factor 5.0 CiteScore 4.6 Indexed in PubMed



# **About the Journal**

# 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.

## **Editor-in-Chief**

## Prof. Dr. Pankaj Vadgama

School of Engineering and Materials Science, Queen Mary University of London, London, UK

## **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, Embase, Ei Compendex, Inspec, CAPlus / SciFinder, AGRIS, and other databases.

## Journal Rank:

JCR - Q1 (Engineering, Biomedical) / CiteScore - Q2 (Biomedical Engineering)

