Special Issue

Anti-biofouling Coating Application-Promising Strategy to Prevent Infection

Message from the Guest Editor

Biomedical-device-associated infections are considered to be one of the most severe and devastating complications. Such devices in human body are always at risk of microbial colonization and later cause infections. The use of antibiotics is a major treatment strategy for such infections. However, frequent use of antibiotics is challenged by antibiotic resistance. In this context, antimicrobial coatings on devices have attracted considerable attention to restrict microbial adhesion or to damage the adhered microbial cells followed by the prevention of associated infections. The most widely used approach to generate the antifouling properties of biomaterials is coatings of nanomaterials, antimicrobial compounds, hybrid hydrogels, polymers, and drug-loaded hybrid materials.

This Special Issue of Microorganisms will present articles associated with the development of biomedical coatings aiming to prevent microbial colonization and associated infections. All manuscripts related to surface coatings with significant antimicrobial efficiency or biofilm inhibitory potential, or reviews on advanced surface coating technologies and their efficiency at preventing infections, are welcome.

Guest Editor

Dr. Santosh Pandit
Department of Biology and Biological Engineering, Chalmers University of Technology, Gothenburg, Sweden

Deadline for manuscript submissions

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

mdpi.com/journal/microorganisms

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About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

Editor-in-Chief

Dr. Nico Jehmlich
Department of Molecular Toxicology, UFZ-Helmholtz Centre for Environmental Research, 04318 Leipzig, Germany

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).

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