Special Issue

Biofilm: Formation, Control, and Applications

Message from the Guest Editor

Bacterial biofilms are aggregates of single or multiple species of bacteria formed at various interfaces, such as solid–liquid, liquid–air, or liquid–liquid interfaces. Beneficial biofilms have played important roles in bioremediation, fermentation, nuclear waste cleanup, and manufacturing. However biofilms can also be detrimental by causing infections, biofouling, and biocorrosion. Understanding how biofilms are formed is critical to efficiently prevent and remove detrimental biofilms and optimally engineer biofilms with beneficial attributes. Recently, the material properties (e.g., viscosity and elasticity) of biofilms are attracting extensive attention due to their roles in controlling the activities of embedded cells (e.g., metabolic activities and cell-to-cell interactions) and the responses of biofilms to external perturbations (e.g., biofilm disruption). This Special Issue welcomes research on bacterial biofilms to better understand the molecular mechanisms of biofilm formation for biofilm control.

Guest Editor

Dr. Huan Gu

Department of Chemistry & Chemical Engineering and Biomedical Engineering, Tagliatela College of Engineering, University of New Haven, West Haven, CT 06516, USA

Deadline for manuscript submissions

31 December 2025

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed

mdpi.com/si/200895

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

mdpi.com/journal/microorganisms

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed

mdpi.com/journal/microorganisms

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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, CAPlus / SciFinder, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

Rapid Publication:

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).

MDPI