Special Issue

Bacteria Control by Phages

Message from the Guest Editors

Bacteriophages (phages) are viruses that specifically target and infect bacteria. They represent the most abundant and diverse biological entities on Earth. Unlike most small-molecule drugs, phages possess inherent specificity against their host bacterial species. Additionally, advances in molecular biology and genomics have unveiled an astounding array of phages in the biosphere, including the normal human microbiota. This vast resource offers a potentially limitless supply of safe natural antimicrobials suitable for use within the human body. In recent breakthroughs, phage therapy has effectively treated patients afflicted with previously "untreatable" multidrug-resistant infections. This collection seeks to consolidate current phage research across various domains, aiming to enhance our understanding of bacterial control. Topics covered include, but are not limited to, phage lysis-lysogeny decision-making and switch, infection dynamics, phage assembly, host–phage interactions, infection cycles, and phage therapy.

Guest Editors

Dr. Lanying Zeng

1. Department of Biochemistry and Biophysics, Texas A&M University, 2128 TAMU, College Station, TX 77843, USA
2. Center for Phage Technology, Texas A&M University, 2128 TAMU, College Station, TX 77843, USA

Dr. Junjie Zhang

Center for Phage Technology, Department of Biochemistry and Biophysics, Texas A&M University, 300 Olsen Blvd., College Station, TX 77843, USA

Deadline for manuscript submissions

31 May 2025

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.4
Indexed in PubMed

mdpi.com/si/185420

Microorganisms
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 4.1
CiteScore 7.4
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 - Q2 (Microbiology)

Rapid Publication:
manuscripts are peer-reviewed and a first decision is provided to authors approximately 11.7 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2024).