Special Issue

Bacterial Infection and Antimicrobial Resistance

Message from the Guest Editors

Infections caused by pathogenic and opportunistic bacteria exert a profound impact on global public health. Bacterial infections constitute the second leading cause of mortality worldwide, a situation further exacerbated by the alarming rise in antimicrobial resistance (AMR)—a challenge that has become even more pressing in the aftermath of the COVID-19 pandemic.

Several bacterial species are recognized as major etiological agents of clinically significant infections. The severity of infection is influenced not only by the virulence and pathogenic potential of the bacterial species but also by host-intrinsic factors, including immunocompromised status, extremes of age, and genetic background. Antimicrobial resistance arises from a convergence of intrinsic genetic mechanisms and anthropogenic factors that accelerate its emergence and dissemination.

This Special Issue seeks to showcase original research articles and comprehensive reviews that deepen current knowledge on bacterial infections and antimicrobial resistance, including their emerging trends, molecular mechanisms, epidemiological patterns, and future perspectives for research, surveillance, and public health interventions.

Guest Editors

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Deadline for manuscript submissions

31 May 2026

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed

mdpi.com/si/261998

Microorganisms
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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.

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