

## Special Issue

# Molecular Characterization of Multidrug-Resistant Pathogens

### Message from the Guest Editors

The rapid emergence and global spread of multidrug-resistant (MDR) pathogens pose a global health challenge, impacting human, animal, and environmental health. Understanding the molecular mechanisms underlying antimicrobial resistance is crucial for developing therapeutic strategies and control measures in all environments. This Special Issue aims to collect studies of MDR pathogens' molecular characterization. Potential topics include, but are not limited to, the following:

- Molecular mechanisms involved in bacterial resistance mechanisms;
- Omics to investigate molecular mechanisms and their evolutionary trends;
- Impact of environmental factors on resistance dissemination;
- One-Health approach for the dissemination of MDR pathogens and resistance mechanisms;
- Response to antimicrobials or antibiotics;
- Genetics on microorganisms to improve antimicrobial effects;
- Genetic elements involved in antimicrobial resistance;
- Molecular epidemiology, phylogenomics, evolution, genomics, phylogenetic reconstruction, and lineage replacement;
- Persistence and tolerance.

### Guest Editors

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### Deadline for manuscript submissions

30 September 2025



## Antibiotics

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## About the Journal

### Message from the Editor-in-Chief

There are very few fields that attract as much attention as scientific endeavor related to antibiotic discovery, use and preservation. The public, patients, scientists, clinicians, policy-makers, NGOs, governments, and supra-governmental organizations are all focusing intensively on it: all are concerned that we use our existing agents more effectively, and develop and evaluate new interventions in time to face emerging challenges for the benefit of present and future generations. We need every discipline to contribute and collaborate: molecular, microbiological, clinical, epidemiological, geographic, economic, social scientific and policy disciplines are all key. *Antibiotics* is a nimble, inclusive and rigorous indexed journal as an enabling platform for all who can contribute to solving the greatest broad concerns of the modern world.

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### Editor-in-Chief

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