



Bacterial Drug Resistance and Transmission Mechanism

Guest Editor:

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Message from the Guest Editor

The use of antimicrobial drugs in both human and animal medicine leads to the rapid development and dissemination of antimicrobial resistance (AMR) in bacteria. In recent years, the emergence of new AMR genes as well as multidrug resistant bacteria is threatening the achievements of modern medical in the fight against bacterial infection. Bacteria have evolved different mechanisms, intrinsic or acquired, to become resistant to antimicrobial drugs, involving membrane barriers, target mutations, efflux pumps, and drug-inactivating enzymes. The dissemination of AMR among bacteria is mainly dependent on HGT, and a variety of MGEs are involved in this process. The AMR dilemma not only exists in humans, but also in farm and wild animals and in environments. To tackle this crisis, a one-health strategy should be implemented, and researchers from different fields should participate and collaborate toward better understanding AMR.

The Special Issue welcomes submissions from different research fields using cutting-edge methods to study the drug resistance mechanisms, evolution and transfer of AMR genes, and the spread and transmission pathways and mechanisms of AMR.





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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 disciples 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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