Special Issue

The Emergence of Multidrug Resistance: Genetic Mechanisms, Fitness Cost, and Dissemination in the Human-Environment Continuum

Message from the Guest Editors

The misuse and over-reliance on antimicrobial drugs have driven the emergence and dissemination of multidrug-resistant (MDR) microorganisms. Although surveillance is an essential tool to assess the spread of MDR pathogens and the robustness of stewardship programs, there is a notable lack of data on antimicrobial use and AMR in many countries. The use of whole genome and metagenomic sequencing have the potential to greatly enhance AMR analysis and tracking at both the local and international levels and are critical to defining the factors and mechanisms that can mitigate the spread or resistance.

This Special Issue focuses on expanding genomic data on the global AMR threat and on filling knowledge gaps in our understanding of the transmission dynamics of AMR genes and mobile genetic elements. We cordially invite researchers working in these areas to contribute Original Research, Case Reports, and General and Systematic Reviews. Reports focused on low- and middle-income countries (LMICs) and disenfranchised populations/ settings are particularly welcomed.

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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.

Editor-in-Chief

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