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Combating the Ever-Increasing Issue of Antimicrobial Resistance with a One Health Strategy in Environment and Medical Systems

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Message from the Guest Editors

Due to the wide application of antibiotics in recent decades, antimicrobial resistance genes (ARGs) have been transmitted, disseminated, and cycled among various environments and human medical systems, resulting in a one-health issue. A one-health combating strategy is urgently needed. The AMR of clinical important pathogenic species and environment dissemination have been extensively investigated; however, a holistic view of the distribution and dissemination of ARGs in all microorganisms is still lacking. Thanks to the development and maturation of clinical and environmental metagenomic next/third-generation sequencing, in combination with culturing and imaging, the community is heading towards a better understanding of the issue and the development of mitigation strategies.

This Special Issue will include topics related to 1) ARG dissemination in public health related system; 2) ARGs in emerging pathogens for various diseases; 3) Mobility of antimicrobial resistance genes in mobile genetic elements; 4) Novel treatment of drug-resistance bacteria by phage therapy or other antimicrobial strategies



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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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