Special Issue

Epidemiological Data on Antibiotic Resistance

Message from the Guest Editor

Antibiotic resistance is a major threat to human health and a worldwide public health priority. Antibiotic resistance mechanisms are complex and associated with phenotypic and genetic changes. In addition to the classical resistance mechanisms, bacteria can develop many other resistance pathways. Experimental models have allowed researchers to address several issues, including the speed, frequency, reproducibility, and conditions of resistance selection as well as the phenotypic and genetic changes, molecular mechanisms, evolution pathways, and fitness costs associated with antibiotic resistance. Strategies to combat antibiotic resistance have also been evaluated experimentally, and include preventing or delaying evolution to antibiotic resistance, reverting antibiotic resistance to susceptibility, restoring antibiotic-susceptible populations, and increasing the bacterial fitness cost of antibiotic resistance. The Special Issue focuses on all these aspects of experimental evaluation of bacterial evolution to antibiotic resistance using axenic media, cell cultures, or animal models.

Guest Editor

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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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