

Special Issue

Mobile Elements and Antibiotic Resistance

Message from the Guest Editor

The inappropriate use of antibiotics has driven the dissemination of antibiotic resistance (AR) in most bacteria. The emergence of AR is mainly driven by two processes: (i) chromosomal mutations altering the cellular targets of antibiotics or decreasing their intracellular concentrations, and (ii) horizontal transfer of resistance genes encoded on mobile elements, such as plasmids, integrative and conjugative elements, and bacteriophages. As a result, the main goal of this Special Issue is to seek manuscript submissions that further our understanding on the crossroads of mobile elements and AR, by exploring some of the following topics:

- Evolutionary dynamics between mobile genetic elements and bacteria
- Genome mining and study of AR genes encoded within mobile elements
- Network-based analyses of the bacterial ‘mobilome’
- Transmission of AR and development of mathematical models
- Machine learning algorithms used to predict AR

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2021)



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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.

Editor-in-Chief

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