



Machine Learning for Antimicrobial Resistance Prediction

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Antimicrobial resistance (AMR) is a major threat to global health and development that affects millions of people each year. In 2020, the WHO declared the top ten global public health threats faced by humankind, and AMR was stated as one of them. It is estimated that AMR could cause 10 million deaths each year by 2050, and it could force up to 24 million people into extreme poverty. Though scientists have paid more attention to AMR, the overall situation is increasingly deteriorating. The application of machine learning approaches to better understand and predict antimicrobial resistance will help to improve patients' outcomes. A great deal of research also continues to predict the resistance profiles of different species of bacteria that cause human and animal infections. This Special Issue seeks manuscript submissions that further our understanding of antimicrobial resistance prediction in pathogenic bacteria. Submissions on resistance prediction, MIC profile prediction, the prediction of resistance sequences, resistance prediction in the environment, AMR gene prediction, and the prediction of AMR based on whole-genome sequencing are encouraged.





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Editor-in-Chief

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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 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.

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