



Antibiotic Resistance and Virulence Profiles of Gram-Negative Bacteria

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Message from the Guest Editors

Dear Colleagues,

Antimicrobial resistance is a recognized worldwide problem that threaten our ability to effectively treat common infections. This is especially problematic for Gram-negative pathogens, which have become multidrug-resistant; therefore, they are labeled as “critical” pathogens in the list of the World Health Organization (WHO) for the development of novel antimicrobial agents. Some strains have already acquired resistance to nearly all antibiotics.

Gram-negative bacteria have also developed a multitude of virulence factors that influence fitness and the outcome of the diseases. They increase resistance to stress conditions, confer the ability to adhere to and colonize biotic and abiotic surfaces (biofilm-producing strains), and help to evade host immunity systems, among other functions.

Therefore, the characterization and surveillance of important resistant and virulent bacteria is essential for defining and implementing mitigation/control measures that can limit the spread of such agents.





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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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