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Antibiotic Resistance and Treatment of MRSA Infection

Guest Editor:

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Message from the Guest Editor

Staphylococcus aureus is a major human pathogen associated with hospital-acquired infections, as well as an emerging cause of community-acquired infections. The selective pressure exerted by the appropriate and/or inappropriate use of antibiotics to treat S. aureus infections results in diverse resistance genes that lead to the development of antimicrobial resistance. Moreover, S. aureus capacity to form biofilms, to antimicrobial resistance and makes treatment more challenging.

This Issue thus aims to provide various strategies to treat MRSA infections. Moreover, studies aiming at elucidating the molecular basis of antimicrobial resistance, target identification, and drug development are also welcome. The overall aim is to bring together the most up-to-date perspectives and research in the areas of:

- 1. Development of novel drugs, vaccines, and preventive strategies against MRSA infection;
- 2. Adjuvant to antibiotics/combination therapy;
- 3. Molecular determinant of antimicrobial resistance;
- 4. Successes and challenges for MRSA infection control.

Keywords: MRSA ; antimicrobial resistance ; mecA ; PBP ; β -lactamase ; biofilm formation ; drug discovery









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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 supragovernmental 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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