Special Issue

Combatting Antibiotic-Resistant Bacteria Using Antimicrobial Materials

Message from the Guest Editor

Bacterial infections and biofilm formation have a critical impact on our everyday lives. Conventional approaches to combat bacterial infections notably rely on the use of antibiotics; however, the emergence of multidrug-resistant bacterial strains has severely decreased the efficacy of currently available antibiotic treatments. Antimicrobial materials are under the research spotlight as a promising approach for both dispersing established biofilms and preventing bacterial colonization. This Special Issue would like to cover a broad range of topics related to antimicrobial materials, including the design of novel materials showing antibacterial properties (e.g., engineered nanomaterials, nanoparticles, peptides, polymers, antifouling coatings, biomaterials, etc.) and the investigation of the relationship between the material's physicochemical features and their antimicrobial efficacy. **Keywords**: antimicrobial material; antibiotic resistance; nanoparticles; bacteria–material interaction

Guest Editor

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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 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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