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Biofilm Formation and Control

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Message from the Guest Editors

Biofilms are structured communities of microbial cells that can form everywhere, and in general, exhibit higher resistance to antibiotics and environmental stresses than their planktonic counterparts. Because they cause serious problems in clinical, industrial, and environmental settings, a better understanding of the dynamics of biofilm formation, as well as the development of new strategies capable of inhibiting and controlling them, is needed.

Hence, this special issue targets the assessment of biofilm formation and the design of novel antibiofilm strategies to control its formation in different settings, including, but not limited to:

- Methods for biofilm monitoring
- Biofilm components quantification (proteins and EPS)
- Multispecies biofilm interactions
- Pharmacokinetic and pharmacodynamic models of biofilm control using novel antimicrobial agents
- Probiotics or probiotic-derived metabolites
- Bacteriophages and bacteriophage-derived enzymes
- Antimicrobial peptides
- Surface modification strategies to prevent biofilm formation
- Natural biofilm inhibitors
- Non-antibiotic drugs
- Combined therapies
- Novel strategies against polymicrobial biofilms

Special Issue



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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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