



Membranes to Fight Drug-Resistant Microbes

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Message from the Guest Editor

Dear Colleagues,

In the fight for finding possible ways to combat multidrug resistance, microbial membranes play a central role. Every microorganism is enveloped with a membrane, which gives them not only a unique character but protection that is essential for survival. The interruption of this fundamental barrier function leads to a rapid cell death and killing rate that is usually faster than the microbial growth rate. Such a non-specific mode of action is less likely to result in resistance and, amongst others, is effective on a variety of microbes. Compounds disrupting or acting on microbial membranes are generally termed as membrane-active and examples include antimicrobial peptides (AMPs), lipidoids, or many other small molecules, such as quaternary ammonium compounds. The mechanism behind the killing of microorganisms underlies specific interactions of those compounds with major constituents of microbial membranes, in particular with (phospho)lipids. In this context, the scope of this Special Issue focuses on membranes as a target for drug/vaccine development and agents strongly affecting membrane architecture in diverse pathogens.





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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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