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New Strategies to Counteract Antibiotic Resistance Mechanisms

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Deadline for manuscript
submissions:

closed (28 February 2019)

Message from the Guest Editors

The excessive use and misuse of antibiotics, as well as the continual evolution and adaptation of microorganisms, are the main causes of multidrug resistance. There is an urgent need for new therapeutic strategies that may restrain or inhibit the mechanisms of resistance.

The marine environment is an important source of compounds endowed with antimicrobial properties. Marine invertebrates, such as sponges, are a prolific source of antibacterial compounds, with many interesting modes of action. Representative examples are the bis(indole) alkaloid deoxytopsentin, isolated from the sponge *Spongosorites* sp, and the 1H-benzo[de][1,6]-naphthyridine alkaloid isoaptamin, isolated from the *Aptos aptos* marine sponge, which showed potent Sortase A inhibitory activity.

This Special Issue will focus on the development of new marine drugs effective in the treatment of antibiotic resistance mechanisms at both bacterial cell and community levels, especially on compounds able to target virulence mechanisms, such as bacterial adhesion to host tissues, without effecting microbial viability. In particular, studies on the anti-virulence mechanisms of these compounds are especially encouraged.



mdpi.com/si/14499

Special Issue



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Message from the Editor-in-Chief

During the past few decades there has been an ever increasing number of novel compounds discovered in the marine environment. This is exemplified by the robust preclinical and clinical pipeline that currently exists for marine natural products. *Marine Drugs* is inviting contributions on new advances in marine biotechnology, pharmacology, chemical ecology, synthetic biology, and genomics approaches related to the discovery of therapeutically relevant marine natural products. Our goal is to share your contribution in a timely fashion and in a manner that will be valued by the scientific community.

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