Marine Bacterial Toxins

Message from the Guest Editors

Seas and oceans are inhabited by a vast diversity of bacteria. Together with other microbes, they account for the largest fraction of biomass produced in seas and oceans. Marine bacteria also constitute a rich source of metabolites characterized by a unique structure and potent biological activity. Toxic metabolites produced by these microorganisms can be divided into endotoxins—the lipopolysaccharides that constitute an integral part of the cell wall of Gram-negative bacteria, and exotoxins—which are produced and excreted by living cells of Gram-negative and Gram-positive bacteria. Several toxic compounds, originally ascribed to fish or invertebrates, have turned out to be produced by symbiotic bacteria.

This SI will collate papers focused on (1) known and new marine bacterial producers of toxins, their diversity, phylogeny and geography; (2) structure, biosynthesis, biological activity and mode of action of the compounds; (3) environmental relevance, impact on human health and biotechnological and pharmaceutical application; and (4) new tools and innovative methods used in the analysis of toxic marine bacteria and their metabolites.

Deadline for manuscript submissions: 31 May 2019
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.