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Application of Marine Chitin and Chitosan II

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Message from the Guest Editors

Chitin and chitosan are biopolymers that are derived from natural sources, including marine crustaceans, squid pens, and sponges. Chitosan is the deacetylated derivative of chitin, with both chitin and chitosan having unique properties and advantages for biomedical applications, most notably biocompatibility and biodegradability. Chitin and chitosan have functional groups such as hydroxyl and amine groups that allow for the conjugation of therapeutic molecules to biopolymers. Processing methods also allow for the tailoring of chitin or chitosan properties by modifying the degree of deacetylation, molecular weight, viscosity, mineral content, and protein content, among other properties. These naturally sourced materials are abundant and sustainable, which has proven advantageous for their use in biomedical applications when compared to synthetic polymers. Chitin and chitosan have many applications in the field of therapeutic biomaterials, including anti-infective materials, tissue engineering templates, drug delivery devices, transfection agents for gene therapy, and implant coatings.



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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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