



an Open Access Journal by MDPI

## Application of Marine Chitin and Chitosan

Guest Editors:

**Dr. Jessica Amber Jennings**

**Dr. Mallesh Kurakula**

**Prof. Dr. Tomoko Fujiwara**

**Prof. Dr. Joel D. Bumgardner**

Deadline for manuscript  
submissions:

**closed (30 April 2021)**

### Message from the Guest Editors

The biopolymer chitin and its deacetylated derivative chitosan may be derived from marine material, such as the exoskeletons of crustaceans, squid pens, and marine sponges. Both chitin and chitosan have unique properties that provide advantages for biomedical applications, most notably biocompatibility and biodegradability. Functional groups within chitin and chitosan polymers allow for facile tuning of their chemical properties, enabling the fabrication of chitosan derivatives or the conjugation of therapeutic molecules to the biopolymers. The abundance and sustainability of naturally derived biopolymers for biomedical applications provide further benefits of chitin- and chitosan-based systems compared to synthetic polymers. Chitin and chitosan are increasingly used as biomaterials to serve a wide range of therapeutic purposes, including antimicrobial preparations, tissue engineered scaffolds, drug delivery devices, transfection agents for gene therapy, and implant coatings.

We welcome innovative research on biomedical and therapeutic applications of chitin and chitosan.



[mdpi.com/si/41337](https://mdpi.com/si/41337)

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Bill J. Baker

Department of Chemistry,  
University of South Florida, 4202  
E. Fowler Ave., CHE 205, Tampa,  
FL 33620-5250, USA

## 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.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Embase](#), [PubAg](#), [MarinLit](#), [AGRIS](#), and [other databases](#).

**Journal Rank:** JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (Pharmacology, Toxicology and Pharmaceutics (miscellaneous))

## Contact Us

---

*Marine Drugs* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/marinedrugs](http://mdpi.com/journal/marinedrugs)  
[marinedrugs@mdpi.com](mailto:marinedrugs@mdpi.com)  
[X@Marine\\_Drugs](#)