

Special Issue

Marine Antioxidants 2025

Message from the Guest Editor

Antioxidants are powerful reducing molecules that help neutralize reactive oxygen species (ROS), harmful byproducts of oxidative metabolism. When ROS levels spike due to stress, alcohol, smoking, ultraviolet radiation exposure, or environmental pollution, they damage DNA, proteins, and lipids, contributing to aging, chronic diseases, heart and liver failure, and even some types of cancers. Our body has several defense systems to balance oxidative stress. Marine organisms are a rich and untapped source of natural antioxidants with diverse bioactivities. Recent advances in genetic engineering and synthetic biology have also favored the development of more efficient systems, to enhance the yield and sustainability of marine natural products. This Special Issue invites contributions that explore the discovery of novel marine natural antioxidants and their biosynthesis. We encourage studies on genetic manipulation, bioprocess optimization, and the functional characterization of these novel antioxidants for several applications. Research integrating genetics, biochemistry, and cellular biology to deepen the biological properties and applications of marine antioxidants is welcome.

Guest Editor

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About the Journal

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.

Editor-in-Chief

Prof. Dr. Bill J. Baker

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