

Special Issue Reprint

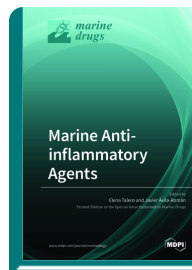
Marine Anti-inflammatory Agents

www.mdpi.com/books/reprint/1745

Edited by

Elena Talero

Javier Avila-Román



ISBN 978-3-03921-572-0 (Softback)

ISBN 978-3-03921-573-7 (PDF)

Acute inflammation is a highly regulated process, and its dysregulation can lead to the development of a chronic inflammatory state which is believed to play a main role in the pathogenesis of many diseases, including cancer. In recent years, the need to find new anti-inflammatory molecules has raised the scientific community's interest for marine natural products. In this regard, the marine environment represents a source for isolating a wealth of bioactive compounds. In this Special Issue, the reported products have been obtained from microalgae, sea cucumber, octopus, squid, red alga-derived fungus, cnidarians, hard-shelled mussel, and sponges.

This Special Issue of Marine Drugs covers both the *in vitro* and *in vivo* studies of marine agents with anti-inflammatory activities, in addition to clinical trials conducted in humans. Among the bioactive molecules reported in the papers are lipid compounds, such as glycolipids, which, for the first time, demonstrated their preventive effects in an inflammatory model of skin hyperplasia. In addition, beneficial effects of the carotenoid fucoxanthin were shown in the same model of skin hyperplasia, in UVB-induced damage and in a model of inflammatory pain. Moreover, frondanol, a lipid extract from *Cucumaria frondosa*, attenuated inflammation in an acute colitis model. Another paper evaluated the fatty acid compositions of lipid extracts from some common seafood organisms, reporting the highest level of omega 3 polyunsaturated fatty acids and the highest anti-inflammatory activity in the extracts from octopus and squid byproducts.

Additionally, the anti-inflammatory effects of other marine compounds have been reported, including hirsutanol A, a from the red alga-derived marine fungus *Chondrostereum* sp. NTQU4196, two alkaloids from the zoantharian *Zoanthus* cf. *pulchellus*, an α -D-glucan from red mussel (*Mytilus coruscus*), and the polyphenol pyrogallol-phloroglucinol, 6,6'-dibenzoyl from an edible marine brown alga. Finally, this Special Issue is supplemented by three reviews focused on the occurrence of prostaglandins in the marine environment and their anti-inflammatory role; fish lipid emulsions used to improve patient outcomes in an



Order Your Print Copy

You can order Print Copies at

www.mdpi.com/books/reprint/1745

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.