



Special Issue Reprint

Marine Bioactive Compounds against Oxidative Stress and Inflammation

www.mdpi.com/books/reprint/8867

Edited by

Elena Talero

Javier Avila-Román

ISBN 978-3-7258-0333-0 (Hardback)

ISBN 978-3-7258-0334-7 (PDF)



Acute inflammation is an innate defense mechanism against infectious or non-infectious stimuli; however, if this process is prolonged or uncontrolled, acute inflammation may become chronic, leading to many inflammatory chronic diseases. In addition, oxidative stress emerges when an imbalance occurs between the excessive production of reactive oxygen species (ROS) and their neutralization by the antioxidant system, which plays a main role in the pathogenesis of chronic diseases. ROS can activate many signaling pathways and induce the expression of a variety of pro-inflammatory mediators. The current need to find new bioactives and the wide diversity of chemical structures that the marine environment potentially represents have raised the interest of the scientific community in recent years. The living beings that inhabit the oceans constantly adapt their metabolism to the changing conditions of their environment. This fact potentially generates a high variability of compounds that serve to protect them from stress produced by changes in light, temperature, food source, or competition for resources, and many of them have shown therapeutic properties. This reprint contains original *in vitro* and *in vivo* studies as well as two complete reviews, reporting the anti-inflammatory and antioxidant properties of bioactive compounds, such as polysaccharides, carotenoids, lipids, and peptides, isolated from different marine organisms, including algae, microalgae, jellyfish, and bacteria. These findings support the potential use of these compounds as therapeutic agents in inflammatory pathologies induced by oxidative stress.



Order Your Print Copy

You can order print copies at

www.mdpi.com/books/reprint/8867

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.