



cells



*Special Issue Reprint*

## Spingolipids

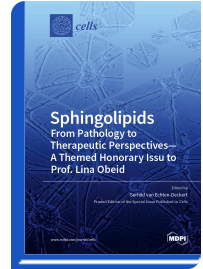
[www.mdpi.com/books/reprint/4051](http://www.mdpi.com/books/reprint/4051)

Edited by

Gerhild van Echten-Deckert

ISBN 978-3-03943-957-7 (Hardback)

ISBN 978-3-03943-958-4 (PDF)



Although sphingolipids are ubiquitous components of cellular membranes, their abundance in cells is generally lower than glycerolipids or cholesterol, representing less than 20% of total lipid mass. Following their discovery in the brain—which contains the largest amounts of sphingolipids in the body—and first description in 1884 by J.L.W. Thudichum, sphingolipids have been overlooked for almost a century, perhaps due to their complexity and enigmatic nature. When sphingolipidoses were discovered, a series of inherited diseases caused by enzyme mutations involved in sphingolipid degradation returned to the limelight. The essential breakthrough came decades later, in the 1990s, with the discovery that sphingolipids were not just structural elements of cellular membranes but intra- and extracellular signaling molecules. It turned out that their lipid backbones, including ceramide and sphingosine-1-phosphate, had selective physiological functions. Thus, sphingolipids emerged as essential players in several pathologies including cancer, diabetes, neurodegenerative disorders, and autoimmune diseases. The present volume reflects upon the unexpectedly eclectic functions of sphingolipids in health, disease, and therapy. This fascinating lipid class will continue to be the subject of up-and-coming future discoveries, especially with regard to new therapeutic strategies.



Order Your Print Copy  
You can order print copies at  
[www.mdpi.com/books/reprint/4051](http://www.mdpi.com/books/reprint/4051)

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.