Abstract

Sphingolipids are fundamental to the structures of cell membranes, lipoproteins, and the stratum corneum of the skin. Many complex sphingolipids as well as simpler sphingoid bases and derivatives are highly bioactive as extra- and intracellular regulators of growth, differentiation, migration, survival, senescence, and numerous cellular responses to stress. This book provides many examples of exciting new developments in sphingolipid biology/sphingolipidology that are changing our understanding of how multicellular organisms grow, develop, function, age, and die. Key areas addressed include sphingolipid biosynthesis, transport, and membrane organization/lipid rafts; genetic approaches to understanding the roles of membrane sphingolipid biosynthesis; sphingolipid metabolism, specific G protein-coupled receptors (GPCRs), and signal transduction; and sphingolipid-associated disease and drug development.

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