1. Record Nr. UNINA9910409697903321

Titolo	Lipid Signaling in Human Diseases / / edited by Julian Gomez-Cambronero, Michael A. Frohman
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-33668-9
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (xiv, 336 pages)
Collana	Handbook of Experimental Pharmacology, , 0171-2004 ; ; 259
Disciplina	612.01577
Soggetti	Pharmacology Cancer research Medical biochemistry Pharmacology/Toxicology Cancer Research Medical Biochemistry Lípids Malalties Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1. New Roles for Sphingolipid Signaling and Cell Function -- 1. Role of Sphingosine Kinase 1 and Sphingosine-1-Phosphate Axis in Hepatocellular Carcinoma -- 2. Exploring the Therapeutic Landscape of Sphingomyelinases -- 3. Sphingosine kinases as druggable targets -- Part 2. Phospholipase D and Mitogen Phosphatidic Acid in Human Disease -- 4. Prospects for PLD inhibition in cancer and thrombotic disease -- 5. Phospholipase D and the Mitogen Phosphatidic Acid in Human Disease: Inhibitors of PLD at the Crossroads of Phospholipid Biology and Cancer -- 6. Role of Phospholipase D-Derived Phosphatidic Acid in Regulated Exocytosis and Neurological Disease -- Part 3. Lipid Kinases and Novel Regulatory Pathways -- 7. Diacylglycerol Kinase Malfunction in Human Disease and the Search for Specific Inhibitors -- 8. Functions of Nuclear Polyphosphoinositides -- Part 4. Bioactive Lipids in Health and Disease -- 9. Platelet-Activating Factor as an

Effector for Environmental Stressors -- 10. Phospholipase D and Choline Metabolism -- Part 5- Lipids and Membrane Microdomains -- 11. Regulation of Inositol Biosynthesis: Balancing Health and Pathophysiology -- 12. Lipids and Membrane Microdomains: The Glycerolipid and Alkylphosphocholine Class of Cancer Chemotherapeutic Drugs -- Part 6. Nuclear Trafficking of Lipids -- 13. Inositide-Dependent Nuclear Signalling in Health and Disease -- 14. Lipids in Exosome Biology.

Sommario/riassunto

Lipids are an integral part of cell membrane architecture, are intermediaries in cell metabolism, and are involved in transmitting cell signals from hormones, growth factors and nutrients. A number of lipases and phospholipases, lipid kinases, lipid phosphatases, sphingosine kinases, and their reaction products have been implicated in fundamental cellular processes including cell proliferation, division and migration. These enzymes and their products underlie the molecular mechanisms of numerous human diseases, in particular metabolic disease (diabetes), cancer, neurodegenerative disease and cardiovascular disease. Over the last decade, studies have advanced to the point that a number of inhibitors for these enzymes have been developed to attempt to ameliorate these conditions; some of the inhibitors are currently in human clinical trial. The need for this book is to review the current status of this field and the prospect for the inhibitors to be clinically important. .