

1. Record Nr.	UNINA9910373904003321
Titolo	Peroxisomes: Biogenesis, Function, and Role in Human Disease // edited by Tsuneo Imanaka, Nobuyuki Shimozawa
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2019
ISBN	981-15-1169-1
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XII, 279 p. 65 illus., 33 illus. in color.)
Disciplina	574.874
Soggetti	Human physiology Cytology Cell physiology Bioquímica Human Physiology Cell Biology Cell Physiology Animal Biochemistry Malalties Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1 Biogenesis and Function of peroxisome -- 1 The history of peroxisomal research -- 2 Peroxisome Biogenesis -- 3 Peroxisome Degradation and Its Molecular Machinery -- 4 The function of the peroxisome -- Part 2 Dysfunction of Peroxisome and Human Disease -- 5 Peroxisomal disorders -- 6 Model organisms used to understand peroxisomal disorders -- 7 Diagnosis of peroxisomal disorders -- 8 Therapeutic strategies for X-linked adrenoleukodystrophy, a representative peroxisome disease -- Part 3 Topics in Peroxisome Research -- 9 The isolation of peroxisomes -- 10 Structure Biology of peroxisomal proteins, peroxins -- 11 Lipidomics of peroxisomal disorders -- 12 Neurophysiology and neuropsychology for X-ALD. .
Sommario/riassunto	This book provides readers with a comprehensive overview of peroxisomes and their role in human diseases. It starts by describing

the history of peroxisome research and then examines in detail the current understanding of the biogenesis and function of peroxisomes. It then focuses on peroxisomal disorders and the involvement of peroxisomes in cancer and age-related diseases, discussing in detail the use of model organisms to elucidate the pathogenesis of peroxisomal disorders and the physiological importance of peroxisomal proteins. Further, the book examines diagnostic and therapeutic strategies in peroxisomal disorders as well as significant recent advances. Lastly, it addresses various topics in peroxisome research, including the isolation of peroxisomes from mammalian tissues and cells, the structural biology of peroxisomal proteins, the lipidomics of peroxisomal disorders, the value of exome sequencing, and neuropsychological testing in X-linked adrenoleukodystrophy. Given its scope, the book is a valuable resource for postgraduate students and researchers in the life sciences and clinicians in the fields of internal medicine, pediatrics, and neurology.
