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Titolo	Targeting Chitin-containing Organisms / / edited by Qing Yang, Tamo Fukamizo
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ISBN	981-13-7318-3
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (VIII, 292 p. 65 illus., 26 illus. in color.)
Collana	Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 1142
Disciplina	572
Soggetti	Biochemistry Pharmacology Entomology Biochemistry, general Pharmacology/Toxicology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	An Introduction to the book -- Chitin: structure, chemistry & biology -- Chitin prevalence and function in bacteria, fungi and protists -- Immune responses of mammals and plants to chitin-containing pathogens -- Chitin organizing and modifying enzymes and proteins involved in remodeling of the insect cuticle -- Chitin-active lytic polysaccharide monooxygenases -- Bacterial Chitinase System as a Model of Chitin Biodegradation -- Chitin synthesis and degradation in fungi: biology and enzymes -- Chitin in Arthropods: Biosynthesis, Modification and Metabolism -- Nematode chitin and application -- Human Chitinases: Structure, Function and Inhibitor Discovery -- Chitin/chitosan-active enzymes involved in plant-microbe interactions -- Chitinous structures as potential targets for insect pest control.
Sommario/riassunto	This book provides a comprehensive overview of chitin biology and chitin metabolism related enzymes. Chitin, the second most abundant biopolymer in nature after to cellulose, is a linear biopolymer composed of -1,4-linked N-acetylglucosamine (GlcNAc), and an essential component in the exoskeletons of insects, mites, ticks and crustaceans, the egg shells of parasitic nematodes, and fungal cell walls. Although some chitin-containing organisms are a threat to

human health, food safety and agricultural production, non-chitin containing organisms like humans, mammals and plants have an innate immune response to these hazardous organisms. The book provides researchers and students with information on the recent research advances concerning the biology of chitin-containing organisms as well as cross-talks between chitin-containing and non-chitin-containing organisms. Highlighting chitin remodeling enzymes and inhibitors, it also offers drug developers essential insights into designing specific molecules for the control of hazardous chitin-containing organisms. .