1. Record Nr. UNINA9910568285303321

Titolo	Aquatic Lectins : Immune Defense, Biological Recognition and Molecular Advancements / / edited by Preetham Elumalai, Baskaralingam Vaseeharan, Sreeja Lakshmi
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	981-19-0432-4
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (389 pages)
Collana	Biomedical and Life Sciences Series
Disciplina	572.69
Soggetti	Molecular biology Immunology Freshwater ecology Marine ecology Biology Molecular ecology Molecular Biology Freshwater and Marine Ecology Biological Sciences Molecular Ecology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Fish Lectins: History, Types and structural classification -- 2. Legume Lectins -- 3. Cereal Lectins -- 4. P-type Lectins -- 5. S-type Lectins -- 6. C-Type Lectins -- 7. Pentraxins -- 8. Localization and diverse distribution of fish lectins -- 9. Fish lectins in host-pathogen interaction -- 10. Antimicrobial and Immunomodulatory role of fish lectins -- 11. Regulation of fish lectin expression during infection -- 12. Role of lectin in biofilm inhibition -- 13. USe of lectins for defence molecules haemagglutination, endocytosis and phagocytosis -- 14. Cytotoxicity and anticancer activity of fish lectins -- 15. Molecular cloning and CRISPR Techniques in Fish lectin research -- 16. Fish lectins as molecular markers -- 17. Application of fish lectin in human and veterinary medicine -- 18. Future perspectives of fish lectin

research.

Sommario/riassunto

This book provides the latest information on fish lectins from the perspective of inflammation and presents new ideas on the complicated mechanisms of lectin biochemistry and associated interactions. Key features include discussion of mechanisms recently identified to be involving lectin family types, presentation of the latest evidence regarding the molecular approaches in fish lectins, and thorough explanation of the concept of antimicrobial and immunological roles and current understanding of the significance of its disease resistance related studies. Gene expression studies is another important element of the book, and it is proposed that gene editing technology provides gaining attention in the biological role of fish lectin research. Examples of the many lastest molecular approaches, applications and future perspectives in fish lectin specific topics covered in this book include the information right from the basics to the advancements in this area. The book will be a valuable update and resource for both experienced and younger researchers working in the field of lectins and immunology.