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InteractionChapter 19. Analysis of Protein-Carbohydrate Interaction Using Engineered Ligands; Chapter 20. Application of Site-Directed Mutagenesis to Structure-Function Studies of Carbohydrate-Binding Proteins; Chapter 21. Bacterial Lectins: Properties, Structure, Effects, Function and Applications; Chapter 22. Glycobiology of Parasites: Role of Carbohydrate-Binding Proteins and their Ligands in the Host-Parasite Interaction; Chapter 23. Structure and Function of Plant Lectins Chapter 24. Lectins and Carbohydrates in Animal Cell Adhesion and Control of ProliferationChapter 25. Galectins in Tumor Cells; Chapter 26. Glycoconjugate-Mediated Drug Targeting; Chapter 27. Glycobiology of Signal Transduction; Chapter 28. Glycobiology of Host Defense Mechanisms; Chapter 29. Transgenic Approaches to Glycobiology; Chapter 30. Biomodulation. the Development of a Process-Oriented Approach to Cancer Treatment; Chapter 31. Glycobiology in Xenotransplantation Research; Chapter 32. Modern Glycohistochemistry: A Major Contribution to Morphological Investigations
Chapter 33. Lectins and Neoglycoproteins in HistopathologyChapter 34. Glycobiology of Development: Spinal Dysmorphogenesis in Rat Embryos Cultured in a Hyperglycemic Environment; Chapter 35. Glycobiology of Fertilization; Chapter 36. Glycobiology of Consciousness

Sommario/riassunto

A comprehensive survey of the topic, ranging from basic molecular research to clinical applications. Critical reviews by leading experts in each field summarize the state of knowledge and discuss the anticipated benefits of novel approaches and strategies. These include the impact of modern analysis techniques on glycobiology, the use of synthetic neoglycoproteins, or the clinical consequences of new insights into the physiological role of lectins and glycoconjugates in pathology, oncology, immunity, neuroscience and reproduction medicine. Throughout, the aim is to separate realistic applicati