Record Nr. UNINA9910139614503321 Carbohydrate recognition [[electronic resource]]: biological problems, **Titolo** methods, and applications / / edited by Binghe Wang, Geert-Jan Boons Pubbl/distr/stampa Hoboken, N.J., : Wiley, c2011 **ISBN** 1-283-22788-6 9786613227881 1-118-01757-9 1-118-01758-7 1-118-01756-0 Descrizione fisica 1 online resource (450 p.) Collana Wiley series in drug discovery and development Altri autori (Persone) WangBinghe BoonsGeert-Jan Disciplina 612/.01578 Soggetti Carbohydrates - Therapeutic use Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto CARBOHYDRATE RECOGNITION; PREFACE; CONTRIBUTORS; 1 MAMMALIAN GLYCAN BIOSYNTHESIS: BUILDING A TEMPLATE FOR BIOLOGICAL RECOGNITION; 2 THE ROLES OF CARBOHYDRATE BINDING IN CELL ADHESION AND INFLAMMATION: 3 THE ROLE OF CARBOHYDRATES IN VIRAL INFECTIONS; 4 THE ROLE OF CARBOHYDRATES IN BACTERIAL INFECTIONS: 5 THE ROLES OF CARBOHYDRATE BINDING IN FERTILIZATION: 6 CARBOHYDRATE BIOMARKERS; 7 GALECTINS AND THEIR ROLE IN VARIOUS BIOLOGICAL PROCESSES; 8 GLYCOIMMUNOLOGY; 9 TOOLS FOR GLYCOMICS: GLYCAN AND LECTIN MICROARRAYS: 10 COMBINATORIAL BIOSYNTHESIS OF **COMPLEX CARBOHYDRATES** 11 MASS SPECTROMETRY IN CARBOHYDRATE SEQUENCING AND BINDING ANALYSIS12 SYNTHETIC LECTIN MIMICS ARTIFICIAL CARBOHYDRATE RECEPTORS; 13 LECTIN BINDING AND ITS STRUCTURAL BASIS; 14 MULTIVALENCY IN CARBOHYDRATE BINDING; 15 CARBOHYDRATE BINDING AGENTS: POTENTIAL THERAPEUTICS WITH MULTIPLE INHIBITORY ACTIONS AGAINST ENVELOPED VIRUSES; 16 INFORMATICS FOR GLYCOBIOLOGY AND GLYCOMICS; INDEX

## Sommario/riassunto

"This book contains contributions from interdisciplinary scientists to collectively address the issue of targeting carbohydrate recognition for the development of novel therapeutic and diagnostic agents. The book covers (1) biological problems involving carbohydrate recognition, (2) structural factors mediating carbohydrate recognition, (3) design and synthesis of lectin mimics that recognize carbohydrate ligands with high specificity and affinity, and (4) modulation of biological and pathological processes through carbohydrate recognition"--Provided by publisher.