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Nota di contenuto	Intro -- Preface -- Contents -- Perspectives and Challenges of Using Chitosan in Various Biological Applications -- 1 Introduction -- 2 Current Status and Challenges of Using Chitosan and Its Derivatives -- 2.1 Chitosan in Biosensor Applications -- 2.2 Application of Chitosan in Food Coating -- 2.3 Chitosan in Drug Delivery Applications -- 2.4 Chitosan in Antimicrobial Applications -- 2.5 Chitosan in Wound Dressing Application -- 2.6 Chitosan in Hemostatic Applications -- 2.7 Applications of Chitosan in Tissue Engineering and Regenerative Medicine -- 3 Conclusion -- References -- Review of the Structure of Chitosan in the Context of Other Sugar-Based Polymers -- 1 Introduction -- 2 Structure and Composition -- 2.1 Structure of Chitin and Chitosan -- 2.1.1 Degree of Deacetylation of Chitosan -- 2.2 Structural Comparison of Chitosan with Other Sugar-Based Polymers -- 2.2.1 Structural Comparison of Chitosan and Cellulose -- 2.2.2 Structural Comparison of Chitosan and Starch -- 2.2.3 Structural Comparison of Chitosan and Alginate -- 3 Interaction of Chitosan with Other Sugar Polymers -- 3.1 Interaction Between Chitosan and Starch -- 3.2 Interaction Between Chitosan and Cellulose -- 3.3 Interaction of Chitosan and Alginate -- 4 Properties of Chitosan -- 4.1 Solubility of Chitosan and Other Sugar Polymers -- 4.2 Thermal Properties of Chitosan and Other Sugar Polymers -- 4.3 Crystallinity of Chitosan and Other Sugar Polymers -- 4.4 Non-toxicity of Chitosan and Other Sugar Polymers -- 4.5 Mucoadhesiveness of Chitosan and Other Sugar

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