

Contents

Curriculum Vitae 3

Introduction 6

Polysaccharides: Structure, properties, and chemical functionalization..... 6

Polysaccharide-based nanocomposites..... 7

Uses of polysaccharides in medical applications 8

Polysaccharide-Based Biological Macromolecules for Tissue Engineering..... 9

Polysaccharide-based wound dressing 9

Cationic Biological Macromolecules..... 10

Anionic Biological Macromolecules..... 16

Summary..... 23

References..... 24

Abstract..... 27