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Nota di contenuto	-- Chapter 1: Introduction to Microbial Enzymes: Present Status and Future Scope in Pharmaceutical Industry -- Chapter 2: Risk Assessment and International Biosafety Guidelines for the Enzyme Replacement Therapy in the Pharmaceutical Sector -- Chapter 3: Microbial Uricase a potential therapeutic tool in the medical industry -- Chapter 4: Streptokinase Evolution and its Pharmaceutical Applications -- Chapter 5: Therapeutics Applications of Nattokinase and Collagenases -- Chapter 6: Microbial Sacrosidase: Mechanism of Action and Its Therapeutic Applications -- Chapter 7: Harnessing the Potential of Microbial Lactase for Treating Lactose Intolerance -- Chapter 8: Structure and Function of Microbial Glutaminases and Their Therapeutics Applications -- Chapter 9: Applications and Scope of

Microbial L-Asparaginase -- Chapter 10:Structure and Function of Microbial Cholesterol Oxidase and Its Applications -- Chapter 11: Enzyme Immobilization: Present Status and Scope for Pharmaceutical Application.

Sommario/riassunto

This book presents comprehensive insights into the role of microbial enzymes in disease diagnosis, treatment and pharmaceutical product development. Enzymes from microbial origin find applications in bread, wine and vinegar production for centuries now. These biomolecules are economical and often perform under a specific pH and temperature. Enzymes such as DNA polymerase, restriction endonuclease, protease, lipase, esterase, dihydrofolate reductase, and several others find their applications in diagnostic assays, biotransformation of drugs and as an important tool in biomedical and pharmaceutical sector. For diagnostics in medical and health care, enzymes offer simple, reliable and fast assays. Additionally, due to the specificity and high-catalytic activity, the scope of enzymes is now globally extending from prediction of an illness to cure. The book begins with comprehensive insights into the history and recent developments in the area of microbial enzymes for pharmaceutical sectors, followed by explanations on enzyme immobilization techniques for industrial applications. The subsequent chapters present the structure-function relationships of various existing microbial enzymes and explore their therapeutic activity for pharmaceutical applications. The chapters are supplemented with ample illustrations and figures for better understanding. This is the first such book which brings various enzymes of microbial origin having pharmaceutical potential under an umbrella. This book is targeted at senior researchers like PhD Scholars, Post Doc Fellows, Scientists and faculty members in the disciplines of Medical Microbiology, Biochemistry, Molecular Biology and Pharmacy.