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Titolo Exploring Microbiotics in Health and Disease: Postbiotics, Probiotics,

and Prebiotics

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Sommario/riassunto "This book consists of thirteen chapters which will examine the role of

microbiotics in health and disease. Chapter One encompasses the origin, selection, and identification of bifidobacteria in traditional foods, the impact of environmental factors on their presence in food, the production of bioactive compounds, as well as the immune response, antimicrobial effect, and antiparasitic effect induced by bifidobacteria found in traditional foods. Chapter Two discusses the biological role of postbiotic compounds as a promising tool for improving oral health. Chapter Three investigates the beneficial properties of honey as a natural postbiotic, including microbe metabolites, plant waste products, and bees. An overview of the concept of postbiotics and their clinical role in host health is presented in Chapter Four. Chapter Five touches upon how postbiotic compounds with safety profile and unique function in degradation of gluten peptides and promotion of the intestinal cell integrity can be considered novel and accessible approach in celiac diet-based therapy. Chapter Six gives a comprehensive overview of the latest developments in the field of drug delivery and discusses the primary in vivo pathways

for the targeted delivery of postbiotics. Chapter Seven provides a clinical review of postbiotics described in the literature, including their mechanisms of action, characteristics, and potential therapeutic applications. In Chapter Eight a proteomic analysis of postbiotics in medical bacteriology is conducted. The authors of Chapter Nine provide research on how postbiotics are used in different mechanisms to treat many diseases, as well as improve the symptoms of colorectal cancer. In Chapter Ten the types, physiological functions and biosynthesis methods of HMOs are reviewed in order to make the future application of HMOs possible, such as additives for infant milk powder. The aim of Chapter Eleven is to approach the advantages of application of postbiotics as functional components in foods. In Chapter Twelve the authors discuss the therapeutic benefits of different postbiotic compounds for the therapy of food allergies in light of the numerous publications demonstrating the high biological function and safety of postbiotics. And finally, a review of the most recent applications of postbiotics for food bio-preservation and maintenance of their microbial safety status, current challenges, and future perspectives is provided in Chapter Thirteen"--