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Nota di contenuto	Chapter 1. Phage display technology: A way forward for recombinant monoclonal antibody production -- Chapter 2. Algae and cyanobacteria as food supplements -- Chapter 3. Probiotic Bacteriotherapeutic Approaches in Oral Healthcare -- Chapter 4. Diagnostics based on microbial enzymes -- Chapter 5. Organic acids of microbial origin as nutraceuticals -- Chapter 6. Microbial production of r-DNA products -- Chapter 7. Microbes in production of non-alcoholic beverages -- Chapter 8. Microbial Pigments: A Potential Substitute of Synthetic Colorants in the Food and Healthcare Sectors -- Chapter 9. Microbial Enzymes of Relevance To Food Industry -- Chapter 10. Microbial Production of fat-soluble Vitamins -- Chapter 11. Microbes in the Baking Industry: A Historical Perspective, Contemporary Impact, and Bakery Product Application -- Chapter 12. Biopharmaceutical

production by recombinant DNA technology: Future perspectives -- Chapter 13. Microbial production of amino acids -- Chapter 14. Microbial Production of Water-soluble Vitamins -- Chapter 15. Microbial production of Polyketide and Nonribosomal Peptide Antibiotics and their applications -- Chapter 16. Microorganisms in the dairy industry.

Sommario/riassunto

This book highlights microbial products and their applications in the health sector. The chapters introduce novel advancements and applications in different pharmaceutical and nutraceutical aspects of applied microbiology. Readers will obtain a detailed overview of the relevance of microbial metabolites to human health and nutrition. Besides knowing the products already developed, they will also get an idea of microbial products currently in the development pipeline and those that are likely to emerge as potential nutraceuticals. Readers will get an interesting and useful perspective on how supplementing food with microbes or their bioactive metabolites can realize the idea of 'food as medicine'. This book introduces the biological activities of various microbial fermentation products, and how they are relevant to mitigating various disease conditions (e.g. neuropathy, diabetes, gut dysbiosis, malnutrition, etc.) in humans. One of the highlights of this volume is the exploration of microbial pigments as potential substitutes for synthetic colorants, offering safer and more sustainable alternatives for the food and healthcare industries. The book has equivalent contributions from experts in academia and industry to fill the communication gap between them. Through this book, readers will gain valuable insights into the historical perspectives, contemporary impacts, and future prospects of microbial applications in health and nutrition. From food preservation to biopharmaceutical production, the potential of microbial products to revolutionize our approach to health and wellness is undeniable.