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Nota di contenuto	Part 1: Biomedical and Nutritional Benefits of Probiotics for Human Health -- Chapter 1: Novel Insights into the Human Microbiome and its Functions -- Chapter 2: The Human Gut Microbiome as Source of Therapeutics -- Chapter 3: Probiotics in Pediatric and Neonate Health Care -- Chapter 4: Probiotics in Allergy Prevention -- Chapter 5: Probiotics in Oral Health Halitosis, Dental Caries and Periodontitis -- Chapter 6: Probiotics for Skin Health -- Chapter 7: Probiotics in Reproductive Health -- Chapter 8: Probiotics in Inflammatory Bowel Disease -- Chapter 9: Probiotic Therapies for Skeleton and Bone Health -- Chapter 10: Probiotics to Prevent Life-style and Metabolic Diseases -- Chapter 11: Probiotic Interventions in Cancer Prevention -- Chapter

12: Probiotics as Anti-aging Interventions -- Chapter 13: Non-conventional Therapies Against Drug-resistance -- Chapter 14: Probiotics Against Pulmonary Diseases -- Chapter 15: Gut-liver Axis Probiotic Interventions -- Chapter 16: Gut-brain Axis Probiotics as Psychobiotics -- Chapter 17: Anti-Parasitic Properties of Probiotics -- Chapter 18: Mobilizing Microbiota and Their Metabolites as Therapeutics -- Chapter 19: Probiotics and Synbiotics in Perioperative Treatments -- Chapter 20: Human Microbiome, Virome and Microbial Therapies Against COVID-19 -- Part 2: Post-Genomic Technologies in Probiotics Sciences and Genome Engineering -- Chapter 21: Engineering Microbes for Health and Therapeutic Applications -- Chapter 22: Synthetic Biology Toolbox Developing Microbial Therapeutics -- Chapter 23: Synthetic Microbes to Modulate the Gut Ecosystem -- Chapter 24: Genetic Engineering and Genome-editing of Probiotic Microbes -- Chapter 25: Designer Probiotics and Postbiotics -- Chapter 26: Probiotics as Next Generation Mucosal Vaccine Vectors -- Chapter 27: Bacteriocins and Antimicrobial Peptides of Probiotics -- Chapter 28: Probiotics and Their Immunomodulatory Properties -- Chapter 29: Omics Technologies in Drug Discovery and Therapeutics -- Chapter 30: Proteomic Unraveling of Probiotics -- Chapter 31: Prediction of Gut Microbe-Host Interaction -- Chapter 32: Nutrigenomics, Metabolomics and Lipidomics in Probiotic Sciences -- Part 3: Biosafety Aspects and Future Prospects of Biotherapeutics -- Chapter 33: Evaluation of Probiotics and Safety Considerations -- Chapter 34: Guidelines for Use of Probiotics -- Chapter 35: Health Claims and Probiotic Recommendations -- Chapter 36: Fecal Microbiota Transplantation.

Sommario/riassunto

This Volume 2 of a two-volume work provides an up-to-date overview of the latest advances in live biotherapeutics research, engineered and genome-edited probiotics. It focuses on key areas within probiotics and microbiome studies in human medicine, including their translation into commercial applications. The book is divided into three sections, comprising (I) biomedical and nutritional benefits of probiotics for human health, (II) post-genomic technologies in probiotics sciences and genome engineering, and (III) biosafety aspects and prospects of biotherapeutics. The broad spectrum of industry-relevant contributions makes this work a valuable resource for industry professionals as well as researchers in functional food and feed biotechnology, applied microbiology and gastroenterology. Presenting novel and evidence-based research, this volume will drive the commercial enterprise and meets the great demand for good probiotic products in the human medical sector. .
