1. Record Nr. UNINA9910827475403321

Titolo	Lactobacillus [[electronic resource]] : classification, uses and health implications / / Alba I. Perez Campos and Arturo Leon Mena, editors
Pubbl/distr/stampa	Hauppauge, N.Y., : Nova Science Publishers, 2012
ISBN	1-62081-186-3
Edizione	[1st ed.]
Descrizione fisica	1 online resource (383 p.)
Collana	Bacteriology research developments Microbiology research advances
Altri autori (Persone)	CamposAlba I. Perez MenaArturo Leon
Disciplina	579.3/7
Soggetti	Lactobacillus - Classification Lactobacillus - Health aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- LACTOBACILLUS: CLASSIFICATION, USES AND HEALTH IMPLICATIONS -- LACTOBACILLUS: CLASSIFICATION, USES AND HEALTH IMPLICATIONS -- Library of Congress Cataloging-in-Publication Data -- Contents -- Preface -- Chapter I: Lactobacillus Plantarum: An Overview with Emphasis in Biochemical and Healthy Properties -- Abstract -- 1. Introduction -- 1.1. Lactobacilli Overview -- 1.2. Lactobacillus plantarum: An Overview -- 2. Biochemical and Genetics Characteristics of L. Plantarum -- 2.1. Biochemical Properties of L. plantarum -- 2.2. Genetical Characteristics -- 2.2.1. Genetic Sequences of Some L. Plantarum Strains -- 3. Safety of L. Plantarum Strains -- 3.1. In Vitro Test to Ensure Safety -- 4. In Vitro Survival of L. Plantarum inGastrointestinal Tract Simulation -- 5. In Vitro Adhesion to Human Gastrointestinal Tract -- 6. In Vitro Probiotic Potential of L. Plantarum Strains -- 7. In Vivo Probiotic Findings Around L. Plantarum Strains -- 7.1. Lactobacillus plantarum 299v -- 7.2. Other L. plantarum Strains -- Conclusions, Perspectives and Future -- References -- Chapter II: Characterization and Evaluationof Lactobacillus plantarum Probiotic Potential -- Abstract -- 1. Lactic Acid Bacteria and LACTOBACILLUS pLANTARUM - Taxonomy and Biochemical and Physiological Characteristics -- 2. LACTOBACILLUS PLANTARUM: Genetic Identification -- 3. Lactobacillus Plantarum: Resistance to Antibiotics --

4. Probiotic Potential of Lactobacillus Plantarum -- 4.1. Management of Gastrointestinal Disorders -- 4.2. Enhancement of Gut Barrier Function -- 4.3. Immunomodulatory Effects -- 4.4. Maintenance of Oral Health -- 4.5. Burns Treatment -- 4.6. Potential Role in Cardiovascular Disease Prevention/Treatment -- 4.7. Cholesterol-Lowering Effects -- 4.8. Potential Antiobesity Effects -- References.
Chapter III: Bacteriocin-Producing Lactic Acid Bacteria for Biopreservation: Example of Application in Raw and Processed Salmon -- Abstract -- Introduction -- Bacteriocins -- Interaction of Bacteriocins with the Food Matrix and Influence of Their Activity by Environmental Factors -- Bacteriocins Produced by Lactic Acid Bacteria Isolated from Salmon and Other Fish or Sea Food -- Bacteriocins Produced by Carnobacterium spp. -- Bacteriocins Produced by Non Carnobactaerium-Species of LAB Isolated from Salmon and Other Fish or Sea Food -- Combined Application of Different Bacteriocin Preparations for Bio-Preservation of Salmon -- Conclusion -- Acknowledgments -- References -- Chapter IV: Resistance of Spoilage Lactobacillus Spp. to Food Processing Technologies -- Abstract -- Introduction -- Thermal Inactivation of Lactobacillus Spp. -- Non-Conventional Processing Technologies -- Non-Conventional Thermal Technologies -- Non-thermal Processing Technologies -- High Pressure Processing (HPP) -- High Pressure Homogenization (HPH) -- High-Pressure Carbon Dioxide (HPCD) -- High-Voltage Pulsed Electric Fields (PEF) -- Other Non-Conventional Technologies -- Hurdle Approach -- Conclusion -- References -- Chapter V: Probiotic and Health Effects of Lactobacillus Strains in Humans -- Abstract -- Main Characteristics of Probiotics Strains -- Use of Probiotics for Prevention and Treatment ofHuman Diseases -- Scientific Support for Efficacy of Lactobacilli in Prevention or Treatment ofHuman Diseases -- Evidence on the Benefits of Some Lactobacillus Strains in Human Health -- L. Acidophillus DDS-1 -- L. Acidophillus LA-1 -- L. Acidophillus La-5 -- L. Acidophillus 145 -- L. Acidophilus NAS -- L. Acidophilus NCFM -- L. Acidophilus ATCC 4356 -- L. Acidophilus LB -- L. Bulgaricus Strains -- L. Casei Strain Shirota -- L. Casei DN-114 001 -- L. Farciminis.
L. Johnsonii Strain La1 -- L. Kalixensis -- L. Plantarum ATCC 10241 -- L. Plantarum MB452 -- L. Plantarum 299v -- L. Reuteri ATCC 55730 -- L. Rhamnosus GG -- L. Rhamnosus GR-1 -- L. Salivarius Strains UCC118 and UCC119 -- L. Salivarius WB1004 -- L. Sporogenes -- Infections Caused by Lactobacilli -- Ineffectiveness of Lactobacilli Treatment for the Prevention or Treatment of Human Diseases -- Commercial Dietary Supplements and Food Products Containing Probiotic Lactobacilli -- Major Problems Limiting the Use of Commercial Products as a Probiotic Supplement for Human and Animals -- Conclusion -- References -- Chapter VI: Lactic Acid Bacteria in Meat and Fish: New Approaches for Traditional Applications -- Abstract -- Introduction -- Meat Fermentation -- Fermented Sausages -- Curing -- Other Ingredients -- Starter Cultures -- Lab Biodiversity in Fermented Meats -- Ocurrence of Enterococci in Meat and Fermented Meat Products -- Enterococci as Non-traditional Starter Culture for Meat Fermentation. E. Mundtii crl35, a Case Study -- Competitiveness of E. Mundtii crl35 during Meat Fermentation -- Bacteriocin Production -- Proteolytic Activity -- Fish Ecosystems -- Salted Anchovy -- Lab Associated with Fish and Fish Products -- Physiological Adaption of Lab to Salted Environments. Lb. Sakei CRL1756, a Case Study -- Osmoprotection -- Proteins Involved in Lb. Sakei CRL1756 Adaption to Salt -- Conclusion -- References -- Chapter VII: Strategies for Low-Cost Production and Modeling of Highly Concentrated Cultures of Lactobacillus CaseiCECT 4043 -- Abstract -- 1. Introduction -- 2.

Materials and Methods -- 2.1. Bacterial Strains -- 2.2. Culture Medium, Fermentation Conditions and Inoculation -- 2.3. Analytical Methods -- 2.4. Preparation of Cell-Free Supernatants (CFS) of L. Casei and Quantification of the Antagonistic Activity.
2.5. Mass Balance Equations in the Re-alkalized Fed-Batch Fermentations -- 2.6. Model Parameters Determination and Model Evaluation -- 3. Results and Discussion -- 3.1. Realkalized Fed-Batch Fermentations -- 3.2. Mathematical Modeling -- Conclusion -- Acknowledgments -- References -- Chapter VIII: Unraveling Genomics of LacticAcid Bacteria and Flavor Formationin Dairy Products -- Abstract -- 1.1. Genomics of Lactic Acid Bacteria -- 1.2. Microbial Ecology of Probiotic Lactobacilli -- 1.3. Starter Cultures -- 1.4. Lactic Acid Bacteria and Flavor Production in Dairy Products -- 1.5. Lactobacillus Delbrueckii and LACTOBACILLUS Delbrueckii UFV H2b20 -- References -- Chapter IX: Beneficial Lactobacilli for Improving Respiratory Defenses: The Case ofLactobacillus Rhamnosus CRL1505 -- Abstract -- Introduction -- Lactobacillus Rhamnosus CRL1505 and Lactobacillus Rhamnosus CRL1506: Differential Immunomodulatory Capacities -- Improvement of Respiratory Immunity by Lactobacillus Rhamnosus CRL1505 in Immunocompetent Mice -- Improvement of Respiratory Immunity by Lactobacillus rhamnosus CRL1505 in Immunocompromised Malnourished Mice -- Improvement of Respiratory Immunity by Lactobacillus Rhamnosus CRL1505 in Children -- Conclusion -- References -- Chapter X: Selection of LAB Strains Based on Species- and Strain-Specific Typing for Probiotic Applications -- Abstract -- 1. Introduction -- Surface Layer (S-Layer) Proteins (Slps) -- LAB Strain Differentiation and Selection Methods -- Assays to Detect Cell Surface Properties Mediating Adhesion -- Cell Culture Studies -- 2. Genetic Modification of Candidate LAB Strains -- Conclusion -- Acknowledgments -- References -- Chapter XI: Lactobacillus in Lacto-Fermented Vegetables -- Abstract -- Introduction -- Lactobacillus in the Fermented Vegetables -- Role of Lactobacillus in the Fermentation. Lactobacillus as Starter Culture in Vegetable Fermentation -- Conclusion -- References -- Chapter XII: Lactobacilli - Functional Starter Cultures for Meat Applications -- Abstract -- Introduction -- Antimicrobial Effect of Lactobacilli -- Resistance of Lactobacilli to Antibiotics -- Lactobacilli as Protective Cultures at Farm Level -- Meat Biopreservation -- Effect of Lactobacilli as Protective Cultures Against L. monocytogenes inFermented Sausages -- Conclusion -- References -- Chapter XIII: Environmental Applications of Lactobacillus for Protein Recovery and Biodegradation of Recalcitrant Chemical Compounds -- Abstract -- Introduction -- Application of Lactobacillus for Protein Recovery -- Applications of Lactobacillus for Biodegradation of Recalcitrant Chemical Compounds -- Conclusion -- Acknowledgments -- References -- Chapter XIV: Use of Probiotics and Prebiotics on Functional Dairy Products: The Health Benefits -- Abstract -- 1. Introduction -- 2. Importance of Probiotic Microorganisms -- 3. Effect of Probiotic Culture on Fermentation -- 4. Importance of Prebiotics -- 4.1. Definition and Benefits of Prebiotics -- 4.2. Inulin and Oligofructose -- 4.3. Prebiotic Effects of Inulin -- 4.4. Technological Application of Inulin -- 4.5. The Health Benefits of Inulin Consumption -- 4.6. Other Prebiotics -- 4.6.1. Polydextrose and Maltodextrin -- 4.6.2. Lactulose -- 5. Influence of Prebiotics in Fermented Milk -- Conclusion -- References -- Chapter XV: Lactobacillus Reuteri ATCC 55730 and L22 Display Probiotic Potential In Vitro and Protect against Salmonella-Induced Pullorum Disease in a Chick Model of Infection -- Abstract -- Introduction -- 2 Materials and Methods -- 2.1 Bacterial Strains used in this Study -- 2.2 Preparation of Cell Free Culture

Supernatants (CFCSs) -- 2.3 Kinetic of Production of Reuterin by L. Reuteri -- 2.4 Competition Experiments.
2.5 Detection of Antimicrobial Activity.