Record Nr. UNINA9910132463603321 Milk and dairy products as functional foods / / edited by Ara **Titolo** Kanekanian Pubbl/distr/stampa Chichester, England:,: Wiley-Blackwell,, 2014 ©2014 **ISBN** 1-118-63508-6 1-118-63506-X 1-118-63505-1 Descrizione fisica 1 online resource (406 p.) Collana Society of Dairy Technology series Classificazione TEC012000 613.2/6 Disciplina Soggetti Dairy products in human nutrition Milk - Analysis Functional foods 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 at the end of each chapters and index. Nota di contenuto Cover; Title Page; Copyright; Contents; Preface to the Technical Series; Preface: List of Contributors: Chapter 1 The Health Benefits of Bioactive Compounds from Milk and Dairy Products; 1.1 The importance of milk and dairy products; 1.2 Dairy products: Concerns and challenges: 1.3 Dairy products and public health; 1.3.1 Heart disease; 1.4 Major nutrients in milk; 1.4.1 Proteins; 1.4.2 Milk fat; 1.4.3 Lactose and its derivatives; 1.4.4 Vitamins and minerals; 1.5 Dairy products as functional foods; 1.6 Bioactive compounds from milk; 1.6.1 Bioactive peptides: 1.6.2 Other bioactivities 1.7 Probiotics and dairy products 1.8 Summary and future trends; References: Chapter 2 Bioactive Peptides from Casein and Whey Proteins; 2.1 Introduction; 2.2 Direct effects of casein and whey peptides on host immunity; 2.2.1 Immunomodulatory peptides derived from casein; 2.2.2 Immunomodulatory peptides derived from whey proteins; 2.2.3 Indirect effects of casein and whey peptides on host immunity; 2.3 Antimicrobial peptides; 2.3.1 Antimicrobial peptides derived from casein; 2.3.2 Antimicrobial peptides derived from whey

proteins; 2.4 Peptides that stimulate the gut microbiota 2.5 Peptides that regulate gut homeostasis 2.6 Potential for peptide bioactivities in vivo and outlook for the future; References; Chapter 3 Colostrum: Its Health Benefits; 3.1 Introduction; 3.2 Bioactive constituents of colostrums; 3.2.1 Peptide growth factors; 3.2.2 Nonpeptide growth factors; 3.2.3 Immunological factors; 3.3 Bovine colostrum use in human health; 3.3.1 Gastrointestinal diseases; 3.3.2 Non-gastrointestinal diseases: 3.3.3 Colostrum and athletic performance; 3.4 Considerations; 3.5 Conclusion; References; Chapter 4 Casein and Whey Proteins in Human Health; 4.1 Introduction 4.2 Casein-derived proteins and their effect in human health4.2.1 The cardiovascular system; 4.2.2 The nervous system; 4.2.3 The immune system; 4.2.4 The nutrition system; 4.3 Whey proteins and their direct and indirect effects on human health: 4.3.1 -lactoglobulin: 4.3.2 lactalbumin; 4.3.3 Immunoglobulins; 4.3.4 Bovine serum albumin; 4.3.5 Lactoferrin; 4.3.6 Lysozyme; 4.3.7 Lactoperoxidase; 4.3.8 Casein macropeptides: 4.3.9 Other enzymes contained in the whey: 4.4 The effect of processing on the bioactivity of casein and whey proteins; 4.4.1 The effect of heat treatment 4.4.2 The effect of ultra-high-pressure processing 4.4.3 The effect of

4.4.2 The effect of ultra-high-pressure processing4.4.3 The effect of protein hydrolysation; 4.4.4 The role of processing in the production of allergenic or bitter-tasting peptides; 4.5 Bioactive peptides production from milk and whey proteins; 4.5.1 Enzymatic hydrolysis; 4.5.2 Microbial fermentation; 4.5.3 Proteolysis; 4.6 Fractionation and enrichment of bioactive peptides; 4.7 Commercial applications and future outlook; 4.8 Conclusion; References; Chapter 5 Sports Nutrition and Dairy Products; 5.1 Introduction; 5.2 Energy balance; 5.3 Carbohydrates

5.3.1 Total dietary carbohydrate requirement

Sommario/riassunto

"This book draws together a wealth of information regarding the functional health benefits of milk and dairy products"--