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Altri autori (Persone)	FullerR PerdigonG (Gabriela)
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Nota di contenuto	Contents; Preface; Acknowledgements; 1 The Intestinal Microflora; From Petri dish to polyacrylamide gel; Catalogues show diversity; A phoenix arises; Is it all the same in the end?; The formative years; Rules and regulations, but mind your language; 2 Food and the Large Intestine; The large intestine; Interactions of the microflora with the host; Effect of diet on the colonic microflora; Diet and bacterial species composition in the large intestine; Diet and bacterial metabolism; Intestinal bacteria and vitamins; Bacterial growth substrates in the large intestine Breakdown of complex carbohydrates by intestinal bacteriaProtein

breakdown by gut microorganisms; Toxological implications of amino acid fermentation; Effects of carbohydrate on amino acid fermentation; Short-chain fatty acids; Effect of diet on SCFA production; In vitro studies on SCFA production; SCFA and cell metabolism; SCFA and colon cancer; Lactate formation by gut microorganisms; 3 The Health Benefits of Probiotics and Prebiotics; Summary; Introduction; Probiotics; Composition of probiotic preparations; Tracking probiotics through the gut; Prebiotics; Oligosaccharides as prebiotics
LactuloseInulin and fructooligosaccharides; Galactooligosaccharides; Soybean oligosaccharides; Lactosucrose; Isomaltooligosaccharides; Glucooligosaccharides; Xylooligosaccharides; Current status; Persistence of the prebiotic effect to distal regions of the colon; Anti-adhesive activities against pathogens and toxins; Targeted prebiotics; Attenuative properties; Defined health outcomes of probiotics and prebiotics; Improved tolerance to lactose; Protection from gastroenteritis; Coronary heart disease; Colon cancer; Vitamin synthesis; Irritable bowel syndrome
Improved digestion and gut functionImmunomodulation; Mineral bioavailability; Conclusions; 4 Intestinal Microflora and Metabolic Activity; Dietary carbohydrates; Bacterial fermentation; SCFA production; SCFA and electrolytes absorption; Colonic metabolism; Physiological consequences of SCFA absorption; Probiotics and the intestinal metabolism of carbohydrates; 5 The Role of the Immune System; Overview of the immune system; Introduction; Innate immune response; Early induced immune response; Adaptative immune response; B lymphocytes and the immunoglobulins
T lymphocytes and the T cell receptor complexAPCs and the MHC molecules; Education of lymphocytes in the primary lymphoid organs; Education of T lymphocytes in the thymus; Education of B lymphocytes in the bone marrow; The immune system functioning; Peripheral lympoid tissues, a place where lymphocytes meet the antigen; Lymphocyte traffic; Activation of T cells; Cell-mediated immune response: generation of armed effector T cells; Generation of Thl and Th2 cells; Cytotoxic T cells; Humoral immune response; Activation of B cells in the secondary lymphoid organs; Kinetics of the immune response
Endogenous regulation of the immune response

Sommario/riassunto

Some foods, as well as contributing essential nutrients to the body, also contain additional components that improve disease resistance and general health status over and above that induced by ingestion of conventional foods. The so-called functional foods, and prebiotics and probiotics exemplify the relationship that exists between nutrition, the gut (the largest element of the body's immune system) and its flora, immunology and health. This important book contains chapters covering the basic principles of nutrition, gut microecology and immunology, as well as chapters which disc