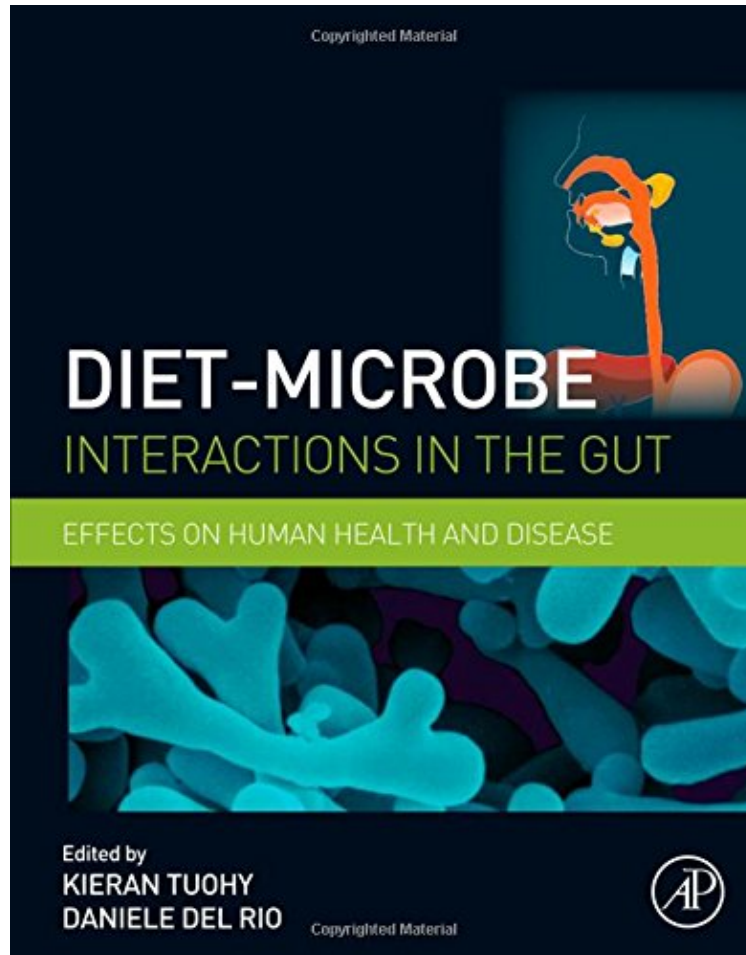


(Download) Diet-Microbe Interactions in the Gut: Effects on Human Health and Disease

# Diet-Microbe Interactions in the Gut: Effects on Human Health and Disease

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**From Academic Press : Diet-Microbe Interactions in the Gut: Effects on Human Health and Disease** before purchasing it in order to gauge whether or not it would be worth my time, and all praised Diet-Microbe Interactions in the Gut: Effects on Human Health and Disease:

Drawing on expert opinions from the fields of nutrition, gut microbiology, mammalian physiology, and immunology, Diet-Microbe Interactions for Human Health investigates the evidence for a unified disease mechanism working through the gut and its resident microbiota, and linking many inflammation-related chronic diet associated diseases. State of the art post-genomic studies can highlight the important role played by our resident intestinal microbiota in determining human health and disease. Many chronic human diseases associated with modern lifestyles and diets

including those localized to the intestinal tract like inflammatory bowel disease and celiac disease, and more pervasive systemic conditions such as obesity, diabetes and cardiovascular disease are characterized by aberrant profiles of gut bacteria or their metabolites. Many of these diseases have an inflammatory basis, often presenting with a chronic low-grade systemic inflammation, hinting at persistent and inappropriate activation of inflammatory pathways. Through the presentation and analysis of recent nutrition studies, this book discusses the possible mechanisms underpinning the disease processes associated with these pathologies, with high fat diets appearing to predispose to disease, and biologically active plant components, mainly fiber and polyphenols, appearing to reduce the risk of chronic disease development. One comprehensive, translational source for all aspects of nutrition and diet's effect on gastrointestinal health and disease. Experts in nutrition, diet, microbiology and immunology take readers from the bench research (cellular and biochemical mechanisms of vitamins and nutrients) to new preventive and therapeutic approaches. Clear presentations by leading researchers of the cellular mechanisms underlying diet, immune response, and gastrointestinal disease help practicing nutritionists and clinicians (gastroenterologists, endocrinologists) map out new areas for clinical research and structuring clinical recommendations.

**About the Author** Kieran Tuohy received his PhD from the University of Surrey (UK) in 2000 under the supervision of Professor Ian Rowland, an MSc. in Environmental Microbiology from the University of Aberdeen, Scotland, and a BSc. in Industrial Microbiology from University College Dublin, Ireland. He worked for 10 years in the group of Professor Glenn Gibson within the Department of Food Science and Nutrition, University of Reading, first as post doctoral researcher and then as Lecturer in Food Metabonomics. His research at Reading focused on measuring the impact diet, especially probiotics and prebiotics on the human gut microbiota. In 2010 he moved to Fondazione Edmund Mach (FEM), Trento, Italy and set up a new research team working on diet: microbe interactions with a special focus on whole plant foods. He now leads the Nutrition and Nutrigenomics Group at FEM with a research focus on whole plant foods, plant bioactives, especially fiber, prebiotics and polyphenols, fermented dairy products and probiotics. He is an Associate Editor of the International Journal of Food Sciences and Nutrition, is on the scientific steering committee of the NutrEvent series of innovation events in the area of food, nutrition and health, and has been involved in a number of expert activities and events organised by the International Life Sciences Institute (ILSI) Europe and the International Scientific Association for Probiotics and Prebiotics (ISAPP). Daniele Del Rio was appointed Assistant Professor at the University of Parma in 2005, after gaining his doctorate under the supervision of Prof. Furio Brighenti. During his PhD and post-doctoral years, he repeatedly visited the Plant Products and Human Nutrition Group led by Prof. Alan Crozier at the University of Glasgow, where he developed interests and expertise in advanced analysis of polyphenols and their metabolites in food and human samples. Thanks to this fruitful international connection, as one of the leading researchers in the field, he is running the Laboratory of Phytochemicals in Physiology at the Department of Food Science in Parma and is the co-founder of the LS9 "Bioactives Health" Interlaboratory Group, where the biological activity of human microbiota derived phytochemical metabolites represents one of the core research topics. Daniele is a Visiting Scholar at the Medical Research Council Human Nutrition Research Unit in Cambridge and a senior collaborator of the Need for Nutrition Education/Innovation Programme (NNEdPro), an independent knowledge generation and research platform also based in Cambridge. He is a member of the Board of Directors of the University Spin-Off "Madegus", focused on Nutritional Education for Children and Associate Editor of the International Journal of Food Sciences and Nutrition.