

General Preface

As far as we know this book is one of the few combining knowledge of the basic and clinical aspects of gluten-related disorders with the knowledge of the evolution of bread and gluten-free products.

Several articles have fully covered disease entities such as celiac disease, dermatitis herpetiformis, gluten ataxia, gluten allergy and clinical syndromes such as non-celiac gluten sensitive enteropathy. Another article reviewed the complications and diseases associated with the clinical disorders.

In this book, bread refers to a wide concept including a variety of food products with gluten-containing and gluten-free cereals. Further articles refer to the evolution of bread, the different grains and the improvements in raw materials in the preparation of bread, in particular the gluten-free products.

The two above-mentioned different areas of knowledge, are presented in this ambitious volume, with the intention to cover the necessary integration of knowledge between the fields that until recently were wide apart. Both fields are essential for patients, physicians, the food and pharmaceutical industry. If we want to benefit from the recent advances made in different areas of knowledge a common platform is crucial to improve the quality of life of the patients. This book will serve as a first step to build this new platform.

A genetic predisposition is fundamental for the development of celiac disease, dermatitis herpetiformis, gluten allergy and possibly gluten ataxia. Without certain environmental factors, of which the intake of gluten is the main offender these diseases will not become overt and no disease will manifest.

Based on the vision to establish a common platform of knowledge our book has three sections. The first section deals with basic knowledge of disciplines controlling the immune response to the toxic peptides resulting from the incomplete enzymatic digestion of gluten. The second section revises the advances in understanding the clinical spectrum of the disorders. The third section explores the evolution of gluten in particular and bread products most widely consumed in the western world. It also describes the great challenge of the elaboration of high quality gluten-free products but less expensive than the products at present available.

In the preface of section I Eduardo Arranz summarized the topics discussed by a group of experts working in basic areas of clinical investigation. In his preface he draws attention to the chapter of new advances in genetics and genomics in HLA and non-HLA genes. Further, he refers to the immunological mechanisms of intestinal tolerance to dietary proteins present in cereals; to the immunostimulatory and toxic peptides; to the pathogenesis that leads to inflammation; to the modulatory role of intestinal microbiota, which are also described in other chapters. This new knowledge has led to new approaches to develop alternatives for the gluten-free diet. These new possibilities are discussed at the end of section I. With these developments the pharmaceutical industry will probably take an interest in these common disorders.

In the preface of section II, Fernando Fernández-Bañares summarizes the different perspectives of the advances in diagnostics, the most appropriate serological tests and new tools. In one of the chapters he addresses the question whether the intestinal biopsy is still the “gold standard” that until recently has dominated the diagnosis and pathology of celiac disease. Another chapter describes the differences in clinical manifestations and diagnostic criteria among children, adolescents and adults. Other chapters summarize the knowledge on the different clinical entities, the common extraintestinal manifestations, the new syndromes related to gluten and associated disorders that are often encountered in patients suffering from celiac disease and/or dermatitis herpetiformis.

Special attention is given to the chapter on “refractory celiac disease”. This condition has a grave prognostic significance. The chapters to which Fernando Fernández-Bañares draws attention, deal with the follow-up of patients with celiac disease in whom the target of therapy should be a total mucosal recovery. He also refers to the quality of life and to the psychological distress in some patients with celiac disease and those with non-celiac gluten sensitivity. At the end of section II he refers to a comprehensive chapter on medical entities that develop when wheat behaves as an allergen such as Baker’s asthma, food and wheat pollen allergy.

Cristina M. Rosell has written a preface to section III. The evolution of gluten-free foods has been highlighted. She draws attention to chapters on the taxonomy of cereals, the role of domestication and breeding of cereals as well as to recent analytical tools for the detection of gluten. These are areas in development that will require new policies and regulation as described in one of the chapters. She also refers to chapters dealing with gluten-free bakery products and pasta, gluten-free autochthonous foodstuffs. These products are still important in Latin America. She also draws attention to the chapter on the developments of gluten-free spirits and drinks. The last chapter of this section emphasizes the marketing and nutrition issues of the quality of gluten-free products.

This book will be interesting to clinical and research scientists in medicine, immunology and pathology, to the professionals in nutritional and health benefits of gluten-free products, to regulatory authorities, food chemists and technologists. We trust it will be of help in the practice of nutritionists, dietitians, industrial bakers, academics involved in undergraduate and post-graduate teaching of gluten related disorders, patients, patient associations as well as to the general public interested in nutrition.

The introductory chapter on epidemiology of celiac disease and gluten related disorders summarizes the latest knowledge and highlights the necessity of systematic studies worldwide in this area. The data available suggest the need to plan further epidemiological studies, in

order to understand the natural history of gluten related disorders and to obtain data to assess the financial burden of these diseases on health systems.

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Eduardo Arranz, MD, PhD, Full Professor of Immunology at the University of Valladolid, Spain.

Fernando Fernández-Bañares, MD, PhD specialist in Digestive Diseases at the “Servei de Digestiu, Hospital Universitari Mutua Terrassa”, Terrassa, Spain. President of SEEC, the Spanish Society of Celiac Disease.

Cristina M. Rosell, PhD from the Food Science Department, Institute of Agrochemistry and Food Technology (IATA-CSIC), Valencia, Spain. She is the current Editor of the Journal of Food Science and Technology.

The three editors have managed to gather a cadre of excellent authors, active and recognized investigators. We are very grateful for sharing their knowledge and expertise.

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