Record Nr. UNINA9910138993903321 Food allergy: adverse reactions to foods and food additives //edited **Titolo** by Dean D. Metcalfe [and three others] Pubbl/distr/stampa Chichester, England:,: Wiley-Blackwell,, 2014 ©2014 **ISBN** 1-118-74414-4 1-118-74418-7 1-118-74416-0 Edizione [Fifth edition.] Descrizione fisica 1 online resource (626 p.) Altri autori (Persone) MetcalfeDean D Disciplina 616.97/5 Soggetti Al·lèrgia alimentària Additius alimentaris Food allergy Food additives - Health aspects Llibres electrònics 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 Food Allergy: Contents: List of Contributors: Preface to the Fifth Edition; Abbreviations; 1 Adverse Reactions to Food Antigens: Basic Science: 1 The Mucosal Immune System: Introduction: Mucosal immunity is associated with suppression: the phenomena of controlled inflammation and oral tolerance; Controlled/physiologic inflammation; Oral tolerance: The nature of antibody responses in the gut-associated lymphoid tissue: The anatomy of the gut-associated lymphoid tissue: antigen trafficking patterns; References; 2 The Immunological Basis of IgE-Mediated Reactions: Introduction Route of sensitizationAllergen uptake in the intestine; T-cell response in IgE-mediated allergy; B-cell response in IgE-mediated allergy; Allergen-specific IgG and IgA; Genes and environment; Innate immune recognition of allergens; Allergic inflammation; IgE receptors; Mast cells; Basophils; Eosinophils; Conclusion; References; 3 The Immunological Basis of Non-IgE-Mediated Reactions; Introduction;

Development of food allergy; Gut anatomy; Defense mechanisms; Oral tolerance; Antigen transport; Antigen processing and presentation; T cells; Eosinophils

Food protein-induced enterocolitis and proctocolitisCeliac disease; Allergic eosinophilic esophagitis and gastroenteritis; Conclusions; Acknowledgment; References; 4 Food Allergens-Molecular and Immunological Characteristics; Introduction; Food allergen protein families; Food allergens of animal origin (Table 4.2); Tropomyosins; Parvalbumins; Caseins; Minor families; Food allergens of plant origin (Table 4.3); The prolamin superfamily; The cupin superfamily; The Bet v 1 family; Minor families; Allergen databases; What does this mean?; Acknowledgment; References

5 Biotechnology and Genetic EngineeringIntroduction; Plant biotechnology; Roundup Ready soybeans: a case study in food safety assessment; Development and benefits of Roundup Ready soybeans; Safety assessment of Roundup Ready soybeans; General assessment strategy for food allergy; Analyzing the sources of introduced genes; Amino acid sequence comparisons to known allergens; Protein stability; in vitroimmunoassays of allergenicity; in vivoassays of allergenicity; Changes in endogenous allergens (substantial equivalence); Allergy assessment summary: Roundup Ready soybeans

Trends in the science of risk assessmentAnimal models for predicting allergenicity; Refinements of in vitropepsin digestion assay; Value of measuring allergen expression levels as part of the allergy risk assessment of biotech crops; Removing allergens from foods; International consensus: a common strategy; Conclusion and future considerations; References; 6 Food Allergen Thresholds of Reactivity*; Definition of threshold; Thresholds for sensitization versus elicitation; Clinical determination of individual threshold doses; Clinical correlates of thresholds of reactivity

MEDs for specific foods

Sommario/riassunto

Edited by world-renowned experts in the field, Food Allergy covers pediatric and adult adverse reactions to foods and food additives in one comprehensive volume. Designed to be a practical, readable reference for use in the hospital or private practice setting, the text is organized into five sections covering basic and clinical perspectives of adverse reactions to food antigens; adverse reactions to food additives; and contemporary topics. Two chapters in the fifth edition are devoted to food biotechnology and genetic engineering.