1. Record Nr. UNINA9910253888003321 The Th2 Type Immune Response in Health and Disease: From Host **Titolo** Defense and Allergy to Metabolic Homeostasis and Beyond / / edited by William C. Gause, David Artis New York, NY:,: Springer New York:,: Imprint: Springer,, 2016 Pubbl/distr/stampa 1-4939-2911-9 **ISBN** Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (183 p.) Disciplina 610 Soggetti Parasitology **Immunology** Medical microbiology Medical Microbiology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Regulation and Function of Basophil, Eosinophil and Mast Cell Responses -- Innate lymphoid cells: An Emerging Population in type 2 Inflammation -- Dendritic Cells and Type 2 Inflammation -- Th2 Cell Responses in Immunity and Inflammation Following Helminth Infection -- Regulatory T Cell Control of Type 2 Inflammation -- Developments in the Design of Anti-Helminth Vaccines -- Tissue Remodeling and Repair During Type 2 Inflammation -- Immune Response to Helminth Infections and as Treatment for Autoimmune Disorders -- Type 2 Immunity and Metabolism. Sommario/riassunto The type 2 immune response that develops during infectious disease has undergone major paradigm shifts in the last several years as new cell types and pathways have been identified. It is now clear that the type 2 immune response, characterized by elevations in specific cytokines, including IL-4, IL-5 and IL-13, is associated with helminth infections in both humans and mice. This response is complex and includes effector functions that mediate resistance, contributing to expulsion, and in some cases destruction, of the parasite. But just as importantly, the type 2 immune response can also mediate tolerance

mechanisms, which can mitigate tissue injury as these large

multicellular parasites transit through vital organs. The tolerance mechanisms include both tissue repair and immune regulatory effects. These latter aspects of the helminth-induced type 2 immune response are increasingly recognized as a potential resource that can be mined for the development of novel immunotherapies that may enhance wound healing, control of autoimmune and inflammatory diseases and regulation of metabolic homeostasis. In this book, leading researchers in this exciting and dynamic field discuss the latest findings and emerging concepts, providing an intellectual framework that can be used as a basis for new discoveries and potentially new treatments for diseases associated with inflammation.