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Contents

VII Preface
Shiohara, T. (Tokyo)

1 Atopic Dermatitis and the Hygiene Hypothesis Revisited
Flohr, C.; Yeo, L. (London)

35 Loss-of-Function Mutations within the Filaggrin Gene and Atopic Dermatitis

47 FcεRI-Toll-Like Receptor Interaction in Atopic Dermatitis
Novak, N.; Bieber, T. (Bonn)

54 The Antimicrobial Skin Barrier in Patients with Atopic Dermatitis
Schittekk, B. (Tübingen)

68 Defective Sweating Responses in Atopic Dermatitis
Shiohara, T.; Doi, T.; Hayakawa, J. (Tokyo)

80 The Role of Cytokines/Chemokines in the Pathogenesis of Atopic Dermatitis
Yamanaka, K.; Mizutani, H. (Tsu)

93 Contribution of Interleukin 18 to the Development of Infection-Associated Atopic Dermatitis
Tsutsui, H. (Nishinomiya); Mizutani, H. (Tsu); Nakanishi, K. (Nishinomiya/Tokyo)

104 Innate Immunity in Atopic Dermatitis
Mrabet-Dahbi, S.; Maurer, M. (Berlin)

112 The Role of Regulatory T Cells in Atopic Dermatitis
Agrawal, R.; Wisniewski, J.A.; Woodfolk, J.A. (Charlottesville, Va.)

125 Increased Susceptibility to Cutaneous Viral Infections in Atopic Dermatitis: The Roles of Regulatory T Cells and Innate Immune Defects

136 Biomarkers for Itch and Disease Severity in Atopic Dermatitis
Lee, C.-H.; Yu, H.-S. (Kaohsiung)
149 Practical Issues on Interpretation of Scoring Atopic Dermatitis: SCORAD Index, Objective SCORAD, Patient-Oriented SCORAD and Three-Item Severity Score
Oranje, A.P. (Rotterdam)

156 Systemic Therapy of Atopic Dermatitis in Children and Adults
Simon, D. (Bern)

165 Author Index

166 Subject Index
Preface

Atopic dermatitis (AD) is indeed a multifactorial genetic disease arising as a result of the complicated interaction of many genes with environmental factors. It has long been thought that a genetic predisposition to a defective skin barrier represents a primary event that can favor the increased penetration of allergens, thereby facilitating the occurrence of allergic inflammatory responses. A recent breakthrough in the understanding of AD pathogenesis has been made with the studies successfully linking loss-of-function mutations in the genes encoding the epidermal structure protein filaggrin with the subsequent risk of developing AD. Another area of AD research apparently points us to the importance of the increase in exposure to various environmental agents, particularly deprived of microbial stimuli, which is known as the ‘hygiene hypothesis’. Recent studies also suggest specific mechanisms whereby innate immune responses are functionally defective in AD. After a long period of neglect, sweating disturbance in AD has recently received increasing attention, because sweat is now recognized as the first element of the innate immune system. Nevertheless, the most common emergent theme has been the role of adaptive immunity in providing cytokines and chemokines that sustain the recruitment, retention and activation of allergen-specific T cells, dendritic cells, eosinophils, basophils and mast cells in the involved tissues.

However, no single text concerning the entire spectrum has been available. The key message of this book is to address the questions raised by dermatologists, pediatricians, practicing physicians, basic immunologists, biologists, pharmacologists and students studying medicine on the pathogenesis, management and therapies of AD. To this end, virtually all chapters have been authored by original investigators who have contributed significantly to the establishment of current concepts. I would like to thank the distinguished authors who made tremendous efforts to make this book very useful, and I am also very thankful to the staff of Karger AG, in particular Ms. Tanja Sebuk.

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