Special Section

Int Arch Allergy Appl Immunol 1991;94:1-8

Contents, Vol. 94, 1991

Cellular and Molecular Networks in Clinical Immunology and Allergy
18th Symposium of the Collegium Internationale Allergologicum
Funchal, Madeira, September 22-26, 1990 Editor
S.T. Holgate, Southampton
145 figures, 61 tables, 1991

KARGER

S. Karger · Medical and Scientific Publishers
Basel · München · Paris · London · New York · New Delhi · Bangkok · Singapore · Tokyo · Sydney

Drug Dosage

The authors and the publisher have exerted every effort to ensure that drug selection and dosage set forth in this text are in accord with current recommendations and practice at the time of publication. However, in view of ongoing research, changes in government regulations, and the constant flow of information relating to drug therapy and drug reactions, the reader is urged to check the package insert for each drug for any change in indications and dosage and for added warnings and precautions. This is particularly important when the recommended agent is a new and/or infrequently employed drug.

All rights reserved.

No part of this publication may be translated into other languages, reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, microcopying, or by any information storage and retrieval system, without permission in writing from the publisher or, in the case of photocopying, direct payment of a specified fee to the Copyright Clearance Center (see ‘Information for Readers and Subscribers’).

© Copyright 1991 by S. Karger AG, P.O. Box, CH- 4009 Basel (Switzerland) Printed in Switzerland on acid-free paper by Buchdruckerei Basler Zeitung AG, Basel ISBN 3-8055-5507-5

Contents

The Carl Prausnitz Lecture
Biographical Sketch of Dr. Alec H. Sehon 9

Carl Prausnitz Memorial Lecture. Suppression of Antibody Responses by
Chemically Modified Antigens
Sehon, A.H 11

Biographical Sketch of Dr. Klaus Rother 21

Complement in Inflammation: Induction of Nephritides and Progress to Chronicity
Rother, K.; Hänsch, G.M.; Rauterberg, E.W 23
Intracellular Messengers

Intracellular Mechanisms Regulating Exocytotic Secretion in Mast Cells

Ion Influx as a Transduction Signal in Mast Cells
Neher, E.

The High-Affinity Receptor for Immunoglobulin E: A Target for Therapy of Allergic Diseases
Kinet, J.-P.; Blank, U.; Brini, A.; Jouvin, M.-H.; Küster, H.; Mejan, O.; Ra, C.

Regulation of Airway Mucosal Ion Transport
Widdicombe, J.H.; Kondo, M.; Mochizuki, H.

Inhibitors of Protein and RNA Synthesis Block the Sensitization of Murine Peritoneal Mast Cells
Coleman, J.W.

Basic Mechanisms of Cellular Priming and Release of Inflammatory Mediators
Brom, J.; Brom, C.; König, W.

Extracellular ATP Stimulates Interleukin-Dependent Cultured Mast Cells and Eosinophils through Calcium Mobilization

Changes in Filament Actin Accompanying IgE-Dependent and -Independent Histamine Release from IL3-Dependent Cultured Human Basophils
Ebisawa, M.; Saito, H.; Reason, D.C.; Sakaguchi, N.; Katsunuma, T.; Iikura, Y.

A GTP Analogue Induces Calcium Release but Not Secretion in Rat Mast Cells
von zur Mühlen, F.; Penner, R.

Contents

Cyclosporin A Inhibits Mediator Release from Human FcεRI+ Cells by Interacting with Cyclophilin
Cirillo, R.; de Paulis, A.; Ciccarelli, A.; Triggiani, M.; Marone, G.

IgE and Its Receptors Regulation of IgE Responses to Inhaled Antigens: Cellular Mechanisms Underlying Allergic Sensitization versus Tolerance Induction
McMenamin, C.; Schon-Hegrad, M.; Oliver, J.; Girn, B.; Holt, P.G.

IgG Anti-IgE Autoantibodies in Immunoregulation
Stadler, B.M.; Gang, Q.; Vogel, M.; Jarolim, E.; Miescher, S.; Aebischer, I.; de Week, A.L.

New Concepts of IgE Regulation

Beta-2-Adrenoceptor Agonists Up-Regulate the in vitro FcEpsilon Receptor II/CD23 Expression on, and Release from, the Promonocytic Cell Line U937 and Human Blood Monocytes

Localization of the FcεRI Binding Site to the Third Constant Domain of IgE
Nissim, A.; Eshhar, Z.
Isolation and Characterization of a 60 kDa IgE-Binding Component Derived from Sera of Atopic Patients (Atopic Dermatitis)
Bujanowski-Weber, J.; Knöller, I.; König, W  96
Role of CD8 T Cells in Rat IgE Responses
Kemeny, D.M.; Diaz-Sanchez, D  99
Are Allergen-Specific IgG Mainly IgG Anti-IgE Autoantibodies?
Jensen-Jarolim, E.; de Week, A.L.; Stadler, B.M  102
Intercellular Messengers Early Development of Mast Cells
Rottem, M.; Kirshenbaum, A.S.; Metcalfe, D.D 104
Regulation of Immune Responses by T Cells with Different Cytokine Secretion Phenotypes: Role of a New Cytokine, Cytokine Synthesis Inhibitory Factor (IL10)
Mosmann, T.R 110
In vitro Development and Functions of Human Mast Cells
Ishizaka, T.; Furitsu, T.; Inagaki, N  116
Control of Eosinophilia
Sanderson, C.J122
Structural-Cell-Derived Cytokines in Allergic Inflammation
Denburg, J.A.; Gauldie, J.; Dolovich, J.; Ohtoshi, T.; Cox, G.; Jordana, M 127
Increased Numbers of the Th2-Like CD4+ T Cells in Target Organs and in the Allergen-Specific Repertoire of Allergic Patients. Possible Role of IL-4 Produced by Non-T Cells
Romagnani, S.; Maggi, E.; Parronchi, P.; Macchia, D.; Piccinni, M.P.; Ricci, M  133
Production of Interleukin-4 and Other Cytokines following Stimulation of Mast Cell Lines and in vivo Mast Cells/Basophils
Contents
5
Histamine-Releasing Factors and Inhibitory Factors
Grant, J.A.; Alam, R.; Lett-Brown, M.A 141
IgE-Dependent Histamine-Releasing Factors. A Brief Review
MacDonald, S.M.; Langdon, J.M.; Greenlee, B.M.; Kagey-Sobotka, A.; Lichtenstein, L.M. 144
Histamine-Releasing Factors
Kaplan, A.P.; Baeza, M.; Reddigari, S.; Kuna, P  148
The Characteristics of Antigen Define the Cellular Source and Kinetics of Histamine-Releasing Factor Induced by Human Peripheral-Blood Mono-nuclear Cells
Turner, K.J.; Strickland, D.; Siemensma, N.P.; Holt, B.J  154
Platelet-Activating Factor Modulates Interleukin-6 Production by Mouse Fibroblasts
Braquet, P.; Pignol, B.; Maisonnet, T.; Mencia-Huerta, J.M 165
Functional Heterogeneity of Human Mast Cells
Pearce, F.L.; Boulos, P.B.; Lau, H.Y.A.; Liu, W.L.; Tainsh, K.R 239

T Cells and Asthma. I. Lymphocyte Subpopulations and Activation in Allergic and Nonallergic Asthma
Walker, C; Virchow J.-C., Jr.; Iff, T.; Bruijnzeel, P.L.B.; Blaser, K 241

Possible Role of Macrophages in Allergic Rhinitis
Bachert, C; Behrendt, H.; Nosbüsch, K.; Hauser, U.; Ganzer, U 244

Evaluation of Immune Parameters in HIV+ Subjects Reporting Adverse Reactions to Sulfamethoxazole
O’Neil, C.E.; Reed, M.A.; Lopez, M.; Gutierrez, E.; Salvaggio, J 246

T Cells and Asthma. II. Regulation of the Eosinophilia of Asthma by T Cell Cytokines
Walker, C; Virchow, J.-C., Jr.; Bruijnzeel, P.L.B.; Blaser, K 248

Platelet Aggregation in Allergic Reactions
Palma-Carlos, A.G.; Palma-Carlos, M.L.; Santos, M.C.B.; Carvalho de Sousa, J.R. 251

Modulation of Leukotriene Formation by Cellular Composition and Exogenous Leukotriene A4
Hilger, R.; Knöller, J.; König, W 254

Effect of Nitric Oxide Generators on Ischemia-Reperfusion Injury and Histamine Release in Isolated Perfused Guinea Pig Heart

Inhibition of Antigen-Induced Late Asthmatic Response and Bronchial Hyperresponsiveness by Cyclosporin and FK 506
Fukuda, T.; Akutsu, I.; Motojima, S.; Makino, S 259

New Antiasthmatic Drugs from Traditional Medicine?
Dorsch, W.; Wagner, H 262

Airway Inflammation and Atopic Asthma: A Comparative Bronchoscopic Investigation
Howarth, P.H.; Wilson, J.; Dukanovic, R.; Wilson, S.; Britten, K.; Walls, A.; Roche, W.R.; Holgate, S.T 266

Contents

7

CD4 T Lymphocyte Activation in Acute Severe Asthma
Corrigan, C.J.; Kay, A.B 270

Exercise-Induced Asthma in Adolescent Gym Class Population
Bransford, R.P.; McNutt, G.M.; Fink, J.N 272

Ragweed-Specific IgA in Nasal Lavage Fluid of Ragweed-Sensitive Allergic Rhinitis Patients: Increase during the Pollen Season

Comparison of Dermal and Systemic Application of Glucocorticoids on the RM3/1+ Macrophage in Human Blood
Zwado-Klarwasser, G.; Bent, S.; Schmutzler, W 278

Time Course of Immediate Release and Relationships between Thrombin-Like Protease, Other Proteinases, Histamine, Protein and Dye Extravasation in Rat Passive Pertitoneal Anaphylaxis
Wilhelms, O.-H.; Lipponer, L.; Linssen, M 280
Late Phase Increase of Thrombin-Like Proteinase, Protein, Leukocytes in Bronchoalveolar Lavage (BAL) Fluid and Chemiluminescence of BAL after Ovalbumin Aerosol Inhalation by Actively Immunized Rats
Linssen, M.; Lemmermann, C; Lipponer, L.; Wilhelms, O.-H 284

Inhibition of Allergen-Induced Bronchoconstriction in Sensitized Guinea Pigs by Orally Administered Allergen
Ishii, A.; Ino, Y.; Haida, M.; Dohi, M.; Suko, M.; Morita, Y.; Ito, K; Okudaira, H 288

Smooth Muscle Mechanics: Implications for Airway Hyperresponsiveness
Schellenberg, R.R.; Pare, P.D.; Hards, J.; Ishida, K. 291

Effects of Theophylline Compared with Prednisolone on Late Phase Airway Leukocyte Infiltration in Guinea Pigs
Gristwood, R.W.; Llupiá, J.; Fernandez, A.G.; Berga, P 293

Pharmacological Modulation of the Antigen-Induced Expression of the Low-Affinity IgE Receptor (FcεRII/CD23) on Rat Alveolar Macrophages

Platelet-Activating Factor-Induced Immediate and Late Cutaneous Reactions
Rihoux, J.-P.; Fadel, R.; Juhlin, L 299

Definition of Platelet-Derived Histamine-Releasing Factor and Histaminergic Receptors Modulating Platelet Aggregation Mannaioni, P.F.; Pistelli, A.; Gambassi, F.; Di Bello, M.G.; Raspani, S.; Masini, E. . . . 301

Neurological Networks Neurogenic Inflammation in Airways
Barnes, P.J 303

Neuropeptide-Induced Secretion from Human Skin Mast Cells
Church, M.K.; El-Lati, S.; Caulfield, J.P 310

Antigen-Induced Modulation of Autonomic and Sensory Neurons in vitro
Undem, B.J.; Myers, A.C.; Weinreich, D 319

Peptidase Modulation of the Pulmonary Effects of Tachykinins
Martins, M.A.; Shore, S.A.; Drazen, J.M 325

Mucosal Nerves in Endobronchial Biopsies in Asthma and Non-Asthma

Contents
The Possible Role of Substance P in the Allergic Reaction, Based on Two Different Provocation Models
Nieber, K.; Baumgarten, G; Witzel, A.; Rathsack, R.; Oehme, P.; Brunnee, TV, Kleine-Tebbe, J.; Kunkel, G 334

Allergens and Epidemiology of the Relationship between Exposure to Indoor Allergens and Their Characterization Asthma

Allergen Profiles of Dog Hair and Dander, Body Fluids and Tissues as Defined by Immunoblotting t
Spitzauer, S.; Rumpold, H.; Ebner, C; Schweiger, C; Valenta, R.; Gabl, F.; Anrather, J.; Breitenbach, M.; Scheiner, O.; Kraft, D 346
Anaphylaxis to Muscle-Relaxant Drugs: Study of Cross-Reactivity by Skin Tests
Leynadier, F.; Dry, J

Synthesis of Biologically Active Recombinant Derf 11
Yuuki, T.; Okumura, Y.; Ando, T.; Yamakawa, H.; Suko, M; Haida, M.; Dohi, M.; Okudaira, H

Allergenicity of Physicochemical Characterization of House Dust Mite Derived Amylase
Lake, F.R.; Ward, L.D.; Simpson, R.J.; Thompson, P.J.; Stewart, G.A

Basidiomycete Allergy: Identification and Characterization of an Important Allergen from Calvatia cyathiformis
Horner, W.E.; Lopez, M.; Salvaggio, J.E.; Lehrer, S.B

Analysis of ‘Clean’ Air Samples by Scanning and Transmission Electron Microscopy and X-Ray Probe Micro-Analysis
Chavarria, F.; Heap, P.; Carswell, F

Ultrastructural Localization of the Allergen Der 1 in the Gut of the House Dust Mite Dermatophagoides pteronyssinus
Thomas, B.; Heap, P.; Carswell, F

A Low Muscular Weight Allergen of White Birch (Betula verrucosa) Is Highly Homologous to Human Profilin
Valenta, R.; Duchène, M.; Breitenbach, M.; Pettenburger, K.; Koller, L.; Rumpold, H; Scheiner, O.; Kraft, D

Tribolium confusum (Confused Flour Beetle, Rice Flour Beetle) - An Occupational Allergen in Bakers: Demonstration of IgE Antibodies
Schultze-Werninghaus, G.; Zachgo, W.; Rotermund, H.; Viewrodt, R.; Merget, R.; Wahl, R.; Burow, G; zur Strassen, R

Investigation of House Dust Mite (Dermatophagoides pteronyssinus) Allergen Extracts Prepared from Purified Mite Bodies and Whole Mite Culture
Wahl, R.; Weber, B.F

Determination of Specific IgE Antibodies to Benzylpenicillin and Amoxicillin in Sera from Patients Allergic to Beta-Lactams
Blanca, M.; Vega, J.M.; Perez, E.; Carmona, M.J.; Miranda, A.; Terrados, S.; Fernandez, J.; Suau, R

Author Index
377