

Immunology for the Practicing Physician

Immunology for the Practicing Physician

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Plenum Press · New York and London

Library of Congress Cataloging in Publication Data

Main entry under title:

Immunology for the practicing physician.

"Proceedings of the Metropolitan Medical Center Symposium held in Minneapolis, Minnesota, April 30-May 1, 1976."

Includes index.

1. Immunologic diseases—Congresses. 2. Immunology—Congresses. I. Schmidtke, Jon R. II. Ferguson, Ronald M. III. Metropolitan Medical Center.

RC581.2.I45

616.07'9

77-2170

ISBN-13: 978-1-4615-8812-2

e-ISBN-13: 978-1-4615-8810-8

DOI: 10.1007/978-1-4615-8810-8

Proceedings of the Metropolitan Medical Center Symposium held in
Minneapolis, Minnesota, April 30-May 1, 1976

© 1977 Plenum Press, New York

Softcover reprint of the hardcover 1st edition 1977

A Division of Plenum Publishing Corporation
227 West 17th Street, New York, N.Y. 10011

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Preface

The field of immunology has grown extensively during the past decade. The basic concepts and importance of these findings may have clinical application in the management, detection, and explanation of human diseases. Therefore, when a topic was to be chosen for the dedication of the new Metropolitan Medical Center, in Minneapolis, Minnesota, immunology, and its relation to medicine, was selected. In fact, "applied immunology has had great impact on all aspects of medical practice. This impact has taken several forms: modern immunology has defined areas of new medical practice (in the immunodeficiency disease, for example); has lent strength to the development of other areas (such as transplantation and tumor immunology); has provided understanding of the etiology and pathogenesis of certain diseases; has provided investigative approaches in laboratory methods for the study of diseases; and may play a major role in diagnosis of treatment and cancer" (Lancet, April 19, 1976).

The purpose of this symposium was to bring to the practicing physician the current "state of the art" of immunological research in an interesting and comprehensible manner. It was our hope that practicing physicians would be updated regarding new aspects of basic and clinical concepts of cellular immunology. The symposium goal was to present clear discussions of the factors related to lymphocyte function in the expression of the immune response, both in normal and disease states. In the first half of this volume the basic fundamentals of cellular immunology are presented. Based on these concepts, the second half of the symposium was dedicated to the possible clinical relevance of basic immunology which currently faces practicing physicians.

As succinctly stated in the seminar brochure by Dr. Richard Reese, pathologist at Metropolitan Medical Center and Editor in

Chief of Minnesota Medicine; "immunology is where medicine's fundamental issues - the basic understanding of disease; its diagnosis, cause, and cure - will be decided. For it is the immune system that dictates how we react to or resist disease. This symposium featuring perhaps the finest collection of experts, will clarify for the practicing physician where we stand on these issues."

In the introduction the basic terminology of cellular immunology is presented by Dr. Jon R. Schmidtke. A discussion of lymphocyte cell surface receptors by Dr. Emil Unanue follows. Dr. David Katz presents the relationship between genes, cells and molecules of the immune response. The cellular regulation of the immune response is explained by Dr. Richard Gershon.

Armed with this basic knowledge of cellular immunology, Dr. Charles Cochrane presents a review of immune complex diseases and possible mechanisms and sites of manipulation for these diseases. Dr. Frank J. Dixon discusses current concepts of the role of chronic viral infection in immunologic diseases. Clinical renal allograft transplantation is approached by Dr. John S. Najarian. In renal allograft transplantation suppression of the immune response is the obvious goal. However, Dr. Richard L. Simmons explains current concepts of tumor immunotherapy in which it is desirable to augment the immune response. The relationship between the immune response and the capacity of the normal host to reject spontaneously arising tumors is discussed by Dr. Robert L. Schwartz and Dr. John Kersey.

We would like to take this opportunity to thank the staff of the Metropolitan Medical Center for making this symposium possible. Dr. John H. Linner, Chairman of the Seminar Committee, provided the impetus for the symposium. We would especially like to thank Ms. Rita Schiavino for her enduring efforts to bring about the mechanical aspects of this symposium. In addition, we would like to thank Ms. Nancy Nordhaugen and Ms. Carol Radermacher for expert typing assistance and assembling the manuscripts for this publication.

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