Methods in Immunology and Immunochemistry

Edited by CURTIS A. WILLIAMS
and MERRILL W. CHASE

Volume V
Antigen-Antibody Reactions *in Vivo*

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Preface

The fifth volume of this treatise is the first of several to be devoted primarily to immune phenomena in tissues or in cell preparations. The authors are, with few exceptions, engaged in immunological research, and their methods are primarily addressed to the needs of workers in immunobiology and immunochemistry. In the selection of methods and in the editing, however, we have kept in mind the needs of students and investigators in an ever widening range of medical, biological, and biochemical fields in which immunological techniques and reagents are used as laboratory tools or as specific probes for biological structure and function. In addition to technique each volume has sought to develop a background in a selection of related classic and newly recognized immunological phenomena, while also introducing or suggesting applications to other research interests.

Certain sections of this volume have been extended to include theoretical and historical background in order to provide an appreciation of the complexity of immune phenomena and their interpretations when they depend on other interacting physiological and molecular systems. Anaphylaxis and tolerance are such topics. Others, such as plaque techniques and preparation of tissue for histological examination, are extensively treated because of the extraordinary range of applications and the exceptional attention to technical detail required for reliable results and meaningful interpretation. Since important techniques such as immunofluorescent labeling and pharmacological assays are dealt with in other treatises, we limit those sections in this volume to the basic methods appropriate for most frequent application. The use of the electron microscope is developing rapidly in immunological research, and we have presented selected applications, making no attempt to introduce general electron microscopy techniques.

Research topics and methods to be covered in future volumes include hypersensitivity, immunity to infection, transplantation, and immunogenetics. In a future volume advances in the most active areas of those treated in previous volumes will be compiled.

We wish to reaffirm our gratitude to the advisory editors whose support and assistance have been so important to the success of these volumes.

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