

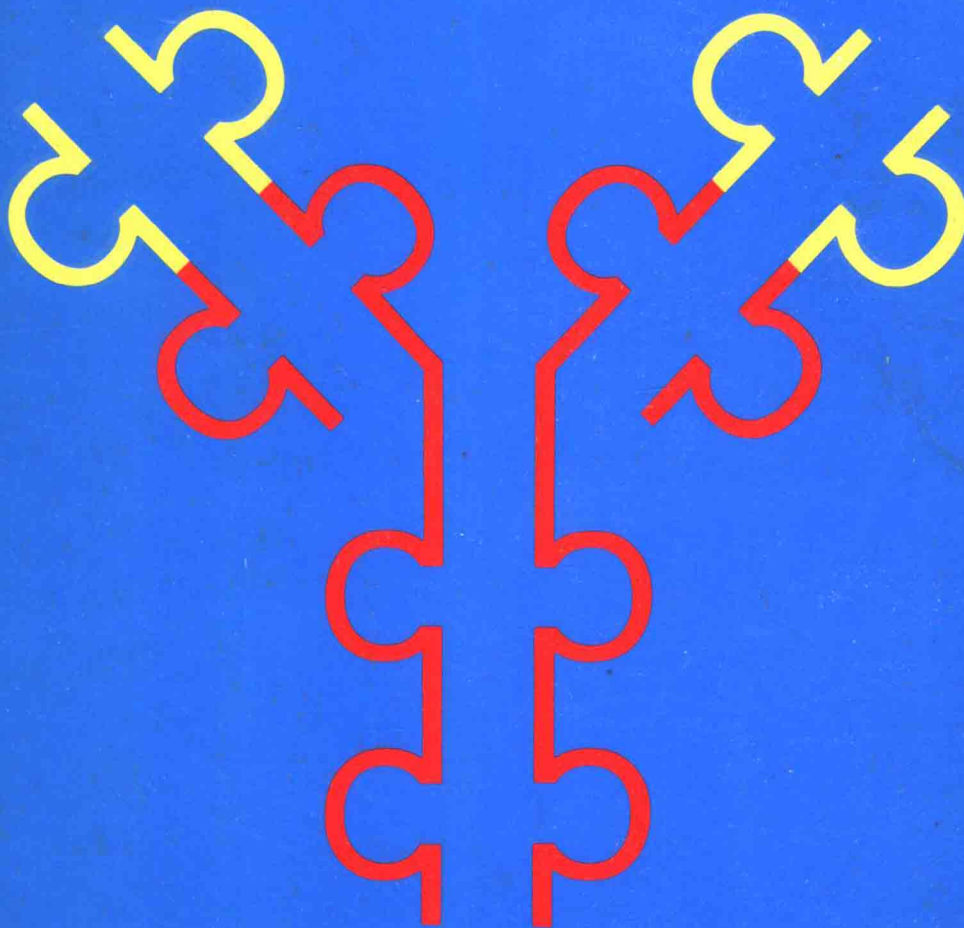
IMMUNOLOGY

A Short Course

SECOND EDITION

Eli Benjamini

Sidney Leskowitz



WILEY-LISS

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PREFACE TO THE SECOND EDITION

An anxiety common to authors of text books in rapidly developing fields is the necessity of relatively frequent revisions to include material which, in the previous edition, was in the "twilight zone," between fact and fancy but which since has gained the status of important fact. Indeed, the rapidly developing field of immunology requires continuous revisions, hence, the present edition.

In this second edition, various concepts and findings have been updated and expanded; new information has been added on such diverse topics as the molecular biology and genes controlling antibody synthesis and isotype switch, T-cell differentiation and the T-cell receptor, antigen processing and presentation, cytokines and lymphokines, new therapeutic approaches for immunodeficiency disorders and tumors, and new aspects of prophylaxis and immunotherapy of infectious diseases. In addition, we have added a section on AIDS and several techniques such as Western blots and fluorescence-activated cell sorting. We have also expanded the glossary and added review questions as well as several clinical correlates.

Although we have deleted and shortened some sections, the expanded and added material increased somewhat the size of the book. We can, however, assure the readers that with this second edition, as with the first

edition, we remain committed to the motto “less is more” and have attempted to present the principles of immunology in a concise, palatable, and easily digestible form.

Revision and change is the constant burden that authors writing about a dynamically changing field have to carry. Students, too, have to partake of that burden and must prepare themselves with the realization that science is not static and they must continually move on to new levels of understanding. Good luck to us both.

PREFACE TO THE FIRST EDITION

Why was this book written? At a time when so many excellent, extensive, and beautifully illustrated texts flood the bookstores, why offer another one? The reasons are fairly simple and rather unsophisticated. In our collective 40 some-odd years of teaching all kinds of students, we have become convinced that most texts fail their purpose because they overshoot the mark.

Anyone coming into contact with these students year after year cannot fail to appreciate the burden under which they operate. If they are to graduate, they must learn an enormous amount of material on an exceptionally diverse series of subjects, each increasing in scope yearly. As any student can tell you, every faculty lecturer considers his/her particular topic absolutely essential for future graduates, and so the pile of required "essentials" grows and grows. This is a manifestly untenable approach to curriculum.

A second cruel observation arises from long years of questioning students: many of them are not really that interested in immunology! As exciting, dynamic, and all-encompassing in its passion that we practitioners of immunology find it to be, the students have many other interests and concerns, one of which is to pass the five or six other subjects usually taken simultaneously with immunology.

This book was therefore conceived along the lines of the noted architect Mies van der Rohe's dictum, "less is more." We have devised this text to present the bare essentials of immunology in a palatable form that will enable most students to grasp the essential principles of immunology sufficiently to pass their course. For those developing a deeper interest in the field, numerous advanced and more complete texts exist to further their interests.

The book follows the outlines of most immunology courses and is divided into chapters that mostly approximate the length of an average lecture reading assignment. A short introduction setting the stage precedes each chapter, the end of each chapter contains a summary, and a series of study questions appears at the very end. The questions are designed to enable students to evaluate their own progress and comprehension; the appended answers are meant as a further learning experience. As new terms or concepts are introduced, they are italicized and defined for easy recognition and recall.

It is our hope that students using this text will avoid that choking sensation so common in a course in immunology and even conceive a curiosity about the subject that will lead to further study.

ACKNOWLEDGMENTS

The authors are deeply indebted to a number of colleagues and students for valuable contributions to the first and/or second edition of the book.

Dr. Demosthenes Pappagianis of the University of California School of Medicine at Davis contributed the chapter on immunoprophylaxis and immunotherapy, which provides useful, practical insights into the application of immunology to the prevention and therapy of infectious diseases.

Dr. Geoffrey Sunshine of Tufts University Veterinary School was deeply involved in the revision of many chapters of the second edition. His valuable and major contributions to the second edition are gratefully acknowledged.

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