HUMAN IMMUNOGENETICS. BASIC PRINCIPLES AND CLINICAL RELEVANCE. Edited by Stephen D. Litwin. New York, Marcel Dekker, Inc., 1989. 828 pp. $150.00.

*Human Immunogenetics* is one of 46 volumes in a continuing series of books related to specific topics in immunology. This lengthy volume is divided into five major areas of immunogenetics: experimental approaches to immunogenetics, genetics of immunology, the major histocompatibility complex, tumor and viral antigens, and blood and serum components. All chapters are introduced with a basic review of historically important literature, but the subject matter soon changes to sophisticated discussion of specific topics.

Classic experiments in Mendelian genetics, Landsteiner blood group antigens, and cellular immunology provide a foundation for descriptions of recent advances in these fields. The text then describes the molecular biology of the immune system, including the genetic regulation of the maturation of lymphocytes and their cell surface receptors (e.g., alpha/beta and gamma/delta T-cell receptors and class I and II gene products). A review of the major histocompatibility complex (MHC) pervades most chapters and is sometimes redundant, though illustrations of MHC products are not provided until halfway through the text.

Sections describing immunoglobulin genes and their function are as detailed as can be found in any textbook. An entire chapter is devoted to immunoglobulin gene structure and the recombination events leading to mature heavy and light chain immunoglobulin responses. This chapter precedes a related discussion of immunoglobulin allotypes and their association with specific diseases.

HLA-associated diseases and sections detailing tumor and viral immunogenetics are also a strength of this book. The statistical association of MHC class I and class II antigens with such diseases as insulin-dependent diabetes mellitus (IDDM), multiple sclerosis, and rheumatoid arthritis is discussed in great detail. Included in this chapter is a discussion of recent advances in restriction fragment length polymorphisms (RFLPs) and their relation to diseases. Murine and feline models of retroviral disease are covered, but a thorough description of human acquired immunodeficiency syndrome (AIDS) is noticeably absent.

*Human Immunogenetics* is an excellent text for advanced students of immunology as well as investigators in related fields. An outstanding brief review of molecular biologic techniques is included (with adequate references); however, those interested in fundamental explanations of immunogenetics should supplement this text with a more basic one. A single flaw of the volume may be the lack of illustrations to complement its excellent subject matter. This book is the first to assemble clearly written and up-to-date discussions of immunogenetics.

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AIDS. PATHOGENESIS AND TREATMENT. Edited by Jay A. Levy. New York, Marcel Dekker, Inc., 1989. 632 pp. $99.75.

The scope of this 21-chapter volume, part of the Immunology Series edited by Noel R. Rose, M.D., is a broad range of topics relating to the acquired immunodeficiency syndrome (AIDS), including the epidemiology, pathogenesis, immunology, clinical
expression, treatment, and clinical management of patients with AIDS. The chapters are written by authorities, many of whom are from the larger medical centers of San Francisco, California, with significant experience in the research and clinical consequences of AIDS.

Approximately one-quarter of the book discusses the epidemiology of AIDS, including a chapter on the general epidemiology both worldwide and in the United States. Other chapters discuss particular concerns in geographic areas such as Africa and Haiti, and special patient populations, such as transfusion recipients and those with hemophilia. Separate chapters address the heterosexual transmission of AIDS and the special epidemiology of pediatric AIDS; this latter chapter also discusses the differences of clinical expression of AIDS in children, as compared to adults.

Another one-quarter of the book concentrates on the molecular biology and pathogenesis of human immunodeficiency virus (HIV), the etiologic agent of AIDS. The chapters in this section are exhaustively referenced; this section includes a chapter on the functional effects of HIV infection on the immune system, which provides a basis for understanding the distinctive susceptibility of patients with AIDS to opportunistic infections.

The remaining half of the book covers a variety of subjects related to the major clinical problems of patients with AIDS, which include immune thrombocytopenic purpura, Kaposi's sarcoma, lymphomas and other neoplasms associated with AIDS, and opportunistic infections. Among the different chapters the approach to and depth of discussion of the broad range of opportunistic infections and other clinical problems varies considerably and may be a nuisance to some readers. In some cases the style has been to discuss opportunistic infections by grouping them with the involved organ system, and in other cases infecting microorganisms are discussed separately. Although not encyclopedic, essentially all principal opportunistic infections and other clinical problems of patients with AIDS are included and are given reasonably detailed coverage. Certain conditions unique to AIDS, such as oral hairy leukoplaikia, are given disproportionately lengthy coverage.

The aspects of treatment alluded to in the subtitle of this volume are principally those related to management of the complications of AIDS and treatment of opportunistic infections rather than specific treatment directed against the HIV agent itself. Specific antiviral treatment against HIV is addressed in a relatively few pages proportionate to the coverage given other topics.

One chapter outlines the mechanics of inpatient and outpatient health care delivery to patients with AIDS at the San Francisco General Hospital. A final chapter focuses on the current efforts to produce an effective HIV vaccine.

The book has numerous tables, diagrams, and photomicrographs and includes 16 color photographs demonstrating the more prominent physical examination findings of patients with AIDS. The illustrations are all high-quality reproductions. All topics are amply referenced to the current literature, and certain chapters are extensively referenced, with approximately 100 references per chapter (range of 17–296 references per chapter). The index is appropriately detailed and helpful.

Most chapters include a mix of primary data drawn from the author's experience synthesized with the broader experience from the literature. This approach results in an interesting and instructive presentation of information. The style of writing does not require the reader already to possess an extensive knowledge of AIDS. The information contained in this comprehensive book would be of benefit to students and clinicians of
all levels, especially infectious disease specialists, immunologists, clinical microbiologists, and research scientists. This volume would be particularly useful to physicians who treat patients with AIDS, and to others who desire a comprehensive, yet readable, up-to-date discussion of the research and clinical aspects of AIDS.

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**SILENT MYOCARDIAL ISCHEMIA AND INFARCTION.** 2nd Edition. By Peter F. Cohn. New York, Marcel Dekker, Inc., 1989. 237 pp. $59.75.

Silent myocardial ischemia is defined as objective evidence of myocardial ischemia without chest pain or other anginal equivalents. *Silent Myocardial Ischemia and Infarction* (second edition) by Peter F. Cohn, Professor of Medicine and Chief of Cardiology at Stony Brook, is an attempt to update his first book, which was published in 1986. The present book is divided into five sections that focus on the pathophysiology, prevalence, detection, prognosis, and management of silent ischemia. In order to examine these issues more closely, Cohn defines three types of settings in which silent ischemia occurs: (1) in persons who are totally asymptomatic, (2) in persons who are asymptomatic following a myocardial infarction but still demonstrate active ischemia, and (3) in persons with a history of angina who are asymptomatic with some episodes of myocardial ischemia, but not others.

The section on prevalence of silent ischemia and infarctions was the most interesting and enlightening part of this book. It is noted that the actual number of people with silent ischemia is unknown, but that autopsy studies have shown that the mean prevalence of coronary artery disease in asymptomatic individuals is 4.5 percent and is as high as 12.3 percent in men aged 60 to 69. Furthermore, it has been estimated that about one-third of all patients who have evidence of post-infarction ischemia by Holter monitoring, exercise stress testing, or radionuclide procedures do not experience angina. This estimate suggests that about 50,000 people each year have ischemia after their heart attacks without clinical symptoms. This statement is even more intriguing because of the possible relationship between sudden death and myocardial infarction in patients without prior histories of angina. Studies have found that between one-quarter and one-half of people with coronary artery disease who die of “sudden death” each year had no prior cardiac disease history.

The book is full of interesting studies which convincingly conclude that silent ischemia is extremely common and has very important prognostic implications. It becomes clear that angina is just one marker of cardiac ischemia and the lack of it in someone with demonstrated ischemia is possibly irrelevant.

The strengths of this volume are twofold. The most important is its content: it provides a most up-to-date summary of an extremely important clinical entity. Now that silent ischemia can be noninvasively detected by Holter monitoring, exercise stress testing, and radionuclide procedures, we are realizing that the condition is extremely common, and that both the internist and cardiologist must know how to diagnose and manage people with it. The second strength of this monograph is its clear organization. Each section begins with several important questions and then systematically answers each as best the literature allows.