

## Infection and Autoimmunity

**Yehuda Shoenfeld and  
Noel R. Rose, editors**

**Elsevier, Amsterdam,  
the Netherlands, 2004  
ISBN: 0-444-51271-3**

**Pages: 747; Price: US \$192.00**

As the editors imply in their introduction, the relationship of infection and autoimmunity is complex, compelling, and best viewed as a physiologic process and potential consequence of normal immune recognition and immunoregulation. The editors boldly state that reading the chapters in this book brings one to the conclusion that all autoimmune diseases are infectious, until proven otherwise (my paraphrase). Add environmental triggers to the mix, and most investigators would agree.

The book is divided into 3 broad sections: mechanisms of autoimmunity; specific infectious agents and their associated autoimmune diseases; and, conversely, specific autoimmune diseases and their associated infectious agents. The chapters in the mechanisms section focus on particular mechanisms, and with 1 exception, are scholarly and well done. However, this section lacks a review or balanced discussion of the various mechanisms of autoimmunity and proof of causation. Fortunately, the first article in the pathogen section by Denman and Rager-Zisman provides an excellent overview. As with any compendium (56 chapters by more than 100 authors), the quality varies, but all are written by investigators who have made substantial contributions to the field. The book is recommended for clinical investigators with some background in infectious disease or immunology as a starting point and ready resource for the current state of knowledge in the field.

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## World Class Parasites: Vol. X, Schistosomiasis

**W. Evan Secor and  
Daniel G. Colley, editors**

**Springer, New York, 2005  
ISBN: 038723277X**

**Pages: 235; Price: US \$129.00**

This compendium of reviews on the human parasitic infection, schistosomiasis, is a timely and much-needed resource for both research investigators and clinical personnel in many scientific and medical fields. Schistosomiasis is a major global health problem that affects hundreds of millions of people. It has been called one of the "great neglected diseases" because of the relative lack of interest by the pharmaceutical industry in developing diagnostics, drugs, and vaccines for it. The parasites that cause this disease, several related species of blood flukes, are also fascinating subjects for biologic research because of their complexity, relatively long lifespan, and remarkable host-parasite biology. To paraphrase Daniel Colley, one of the editors: "Analysis of this infection has con-

tributed as much to our understanding of the human immune response and host parasite interactions as science has contributed to the control of the disease."

What sets this book apart is its readability for audiences from diverse backgrounds. This is in large part due to the thoughtfulness the editors put into choosing authors and topics, and perhaps most importantly, the relative brevity of each chapter. This latter point cannot be overemphasized since many compendiums overwhelm the reader with lengthy and dense material. This book is, therefore, especially valuable as a resource for students, postdoctoral fellows, and first-time investigators in this field.

One obvious conclusion that a reader new to the field will take away from this book is the diversity of research in this field. This reflects, as the editors note, a newfound intellectual energy born of the successful (albeit fledgling) applications of molecular genetic techniques to the study of the host-parasite relationship in schistosomiasis. At the same time, a shortcoming of the book is the relative lack of attention to the biochemistry of schistosomes, which is a key foundation for understanding how the parasite ticks and identifying new targets for chemotherapy. The work of investigators like John Dalton and Conor Caffrey on schistosome digestion of host proteins, for example, gets bare mention. This may be an inevitable consequence of the authors coming from a background of schistosome immunology, which is well represented in the book.

Another shortcoming is probably inescapable. As a field like schistosomiasis research enters a period of rapid and exciting advances, it is difficult for a book to keep up with the most recently published work. For example, many insights into the host-parasite relationship are becoming clear from proteomics analysis by groups like that of Alan Wilson at the

University of York. Perhaps this criticism is actually reflecting good news as the field is reenergized.

Colley correctly points out that the key to the future of research on this disease, and new approaches to its control, lies in recruiting a new generation of scientists and clinicians with an interest in the disease. I have been struck by the number of graduate students and MD/PhD students who have expressed a renewed interest in schis-

tosome research over the past year. Like Colley, I believe this reflects the exciting technologic advances and novel approaches to understand the biology of this fascinating organism that are beginning to show success. If we are right that a new generation of young scientists are testing the waters of schistosome research, this excellent compendium could not come at a better time.

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