

New Generation Vaccines, 3rd Edition

Edited by Myron M. Levine,
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New York and Basel: Marcel Dekker, 2004.
1117pp., illustrated. \$225.00 (cloth).

This volume is a comprehensive, multi-authored, 90-chapter text that summarizes recent advances in the field of vaccinology. The title of the book does not do justice to its scope. It is much more than a description of the new vaccines developed since the previous edition, which was published in 1997. Forty percent of the book is devoted to general topics that establish a socioeconomic context for vaccine development (i.e., issues such as ethical considerations of the conduct of vaccine trials in developing countries, vaccine economics, regulatory issues, and implementation and eradication strategies), and the basic scientific discoveries that have fostered the acceleration and broadening of vaccine development. The quickening pace and scope of stunning scientific advances have facilitated the creation of a new generation of specific vaccines, combined vaccines, sequential prime-boost vaccines, improved adjuvants, viral and bacterial vaccine vectors, and novel delivery systems that use a variety of genetic techniques to manipulate the antigen presentation or the host immunologic response. Particularly helpful in these introductory sections are the overview chapters (J. B. Kaper and R. Rappuoli's "An Overview of Biotechnology in Vaccine Development" and M. B.

Sztein's "Recent Advances in Immunology that Impact Vaccine Development").

The 50 chapters that deal with vaccines for specific diseases are organized into 3 groups. The first group describes new and improved vaccines for use against diseases for which licensed vaccines already exist. This group includes the polysaccharide conjugate vaccines (against meningococcal, *Haemophilus influenzae*, pneumococcal, and enteric bacterial pathogens), as well as new approaches to immunization for influenza, tuberculosis, arboviruses, and cholera. Somewhat surprisingly, there is no chapter on pertussis, although many variations of the acellular vaccine have been developed and are being considered for adult as well as pediatric use.

The second group of chapters describes vaccines against microbial (i.e., viral, bacterial, and parasitic) diseases for which licensed vaccines are not readily available. These chapters are of uniform high quality and are presented in a sequence that includes a review of the associated pathogen, host-pathogen interactions, and immune correlates of protection, which is followed by a review of vaccination strategies and the vaccine studies to date. R. J. Whitley's review, "Herpes Simplex Viruses," and the 4 chapters about malaria vaccines are particularly noteworthy. Publication schedules precluded the inclusion of a chapter reviewing the very active efforts now being made to develop a vaccine for severe acute respiratory syndrome (SARS).

The third group of chapters describes vaccine therapy and vaccines that can be used against cancer and other chronic diseases. The exciting prospect of a vaccine that can be used against human papillomavirus, the cause of cervical cancer, is clearly presented by Boslego, Liu, and Frazer. The chapters about vaccines that can

be used against noninfectious diseases such as Alzheimer disease, atherosclerosis, multiple sclerosis, type-1 diabetes, and drug addiction, are fascinating science and provide a glimpse into the future.

This excellent book can be considered a standard text in the field of vaccinology. Its focus on basic science and new product development nicely complements another standard text, *Vaccines*, edited by Plotkin, Orenstein, and Offit [1], which focuses on applied areas of vaccine recommendations and usage. Textbooks are inherently susceptible to falling behind in a rapidly changing or new field (e.g., treatment of SARS), although a Web-based source, The Jordan Report, which is published by the National Institutes of Allergy and Infectious Diseases (<http://www.niaid.nih.gov/dmid/vaccines/jordan>), offers an authoritative and succinct review of current vaccines under development. In addition, the most recent vaccine usage recommendations from the Centers for Disease Control and Prevention can be accessed from their National Immunization Program publications page (<http://www.cdc.gov/nip/publications>). Together, these texts and Web sites provide a comprehensive resource for infectious disease experts, vaccine scientists, and students of this important area of medicine and public health.

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Reference

1. Plotkin SA, Orenstein WA, Offit PA, eds. *Vaccines*. 4th ed. Philadelphia: Elsevier, 2004.

An Atlas of Differential Diagnosis in HIV Disease, 2nd Edition

Edited by M. C. I. Lipman, R. W. Baker, and M. A. Johnson

New York: The Parthenon Publishing Group, 2004.
200 pp., illustrated. \$99.95 (cloth).

The second edition of this volume is a compendium of images from numerous contributors from the Royal Free Hospital in London, United Kingdom. The volume begins with an introductory chapter titled "HIV: An Overview," in which several aspects of HIV infection, including epidemiology, virology, testing, evaluation of the HIV-infected patient, and clinical classification, are reviewed. Discussion of acute seroconversion, fever, blood dyscrasias, and sexually transmitted diseases in men and women are also included in this chapter. The next 6 chapters are devoted to specific organ systems including the skin, respiratory, gastrointestinal, neurological, and ocular systems and one chapter that includes the endocrine, metabolic, musculoskeletal, and renal manifestations of HIV disease. Malignant disease and complications of HAART are the topics of the final 2 chapters. In most cases, each chapter begins with a general overview of the HIV-associated conditions related to the particular organ system under discussion. This is followed by color photographs, radiographs, and histological images of a variety of pathologic processes. Each image is accompanied by a legend that may include clinical details, comments regarding the disease state, and other information.

As one would hope for in an atlas, the major strength of this volume is the visual images. With few exceptions, the quality

of the photographs, histopathologic slides, and radiographs is excellent. The images clearly demonstrate the pathologic processes of interest and are enhanced by the narrative details included in the figure legends. A fairly broad range of HIV-related conditions are represented in this volume, though diseases that are not common in Europe and the United States are absent (e.g., cutaneous leishmaniasis and lymphogranuloma venereum).

Additional weaknesses are noted with this atlas as well. The vast majority of the photos are of white men. The material at the beginning of each chapter is uneven in depth, sometimes too detailed and at other times too diffuse. The sources of information are not specifically referenced in the accompanying text and instead are listed alphabetically by chapter at the end of the book. This method severely limits the ability of the reader to identify and obtain the relevant reference material. Some sections of the narrative, such as the section about specific evaluation and treatment of HIV infection, may be presented better by other sources (e.g., the table of antiretroviral drugs and adverse reactions), especially in view of the rapidly evolving nature of the treatment of HIV infection. In a few instances, the suggested treatment is counter to standard guidance (e.g., the continuation of trimethoprim/sulfamethoxazole therapy in the presence of rash and desensitization of the same drug for *Pneumocystis jiroveci* pneumonia prophylaxis). Finally, the last chapter, which is about HAART-related complications, seems to be a convenience sample of images. The chapter would be enhanced by more attention to immune restoration inflammatory syndrome, which is particularly a problem in areas with limited resources.

Despite these limitations, this book is a valuable reference for many conditions that are now (fortunately) less common among HIV-infected persons in the developed world in the era of HAART. This volume would be useful for the teaching

physician and should have a place in the libraries of infectious diseases and HIV medicine training programs and clinics.

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New Books Received

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Mascie-Taylor N, Peters J, McGarvey ST. *The Changing Face of Disease: Implications for Society*. Boca Raton: CRC Press, 2004. 224 pp. \$89.95. ISBN: 0-415-32280-4.

Rinpoche CN, Shlim DR. *Medicine & Compassion: A Tibetan Lama's Guidance for Caregivers*. Somerville: Wisdom Publications, 2004. 192 pp. \$19.95. ISBN: 0-87-478-4.

Shafid IV. *Inside the Red Zone: Physical and Spiritual Preparedness against Weapons of Mass Destruction*. Las Vegas: Global Strategic Resources, 2004. 352 pp. \$19.95. ISBN: 0-9754214-9-2.

Ala'Aldeen DA, Hiramatsu K. *Staphylococcus aureus: Molecular and Clinical Aspects*. Chichester: Horwood Publishing, 2004. 279 pp. \$80. ISBN: 1-898563-96-9.

Wormser GP. *AIDS and other Manifestations of HIV Infection*, 4th ed. London: Elsevier Academic Press, 2004. 1080 pp. \$249.95. ISBN: 0-12-764051-7.