

Book Review

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Emerging Viruses in Human Populations-- Perspectives in Medical Virology (Vol. 16)

Edited by Edward Tabor

Amsterdam, The Netherlands: Elsevier (2007)

368 pp., \$98.95, hardcover

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Due to their potential for use in acts of bioterrorism, emerging infectious disease agents have been the subject of an abundance of reviews in recent years. The steady increase in case numbers of some of the emerging infectious viral diseases (Chikungunya disease, Crimean-Congo hemorrhagic fever, dengue, filoviral hemorrhagic fevers, Rift Valley fever) and the discovery of new and dangerous agents (henipaviruses, SARS coronavirus) have added to this plethora of overview articles. In most cases, these reviews provided only superficial descriptions of particular agents or were simply updated versions of older texts and therefore not of interest to experts. Occasionally, however, reviews with true informational value are produced. *Emerging Viruses in Human Populations*, edited by Edward Tabor, is such a gem. This book, a collection of 12 chapters on diverse viral agents written by leading experts in the field, appears to be a sequel to the last book of the *Perspectives in Medical Virology* series, *Viral Haemorrhagic Fevers* written by Colin R. Howard (see Book Review in *Applied Biosafety*, 11[2], pp. 98-99, 2006).

Emerging Viruses in Human Populations begins with an important introductory chapter addressing certain viral diseases; it is written by Brian W. J. Mahy, who reminds the reader that herpes simplex virus 2, hepatitis C virus, human immunodeficiency virus 1, and human T-lymphotropic viruses were all once regarded as exotic agents of negligible significance, but which today are listed as high priorities on the public-health agenda. The message of this chapter is clear: we should not repeat the mistakes of the past, but take novel or exotic viral agents seriously and develop countermeasures *before* they become "important."

Mahy's chapter is followed by an interesting introductory chapter on zoonoses written by Brigitta Åsjö and Hilde Kruse. The authors correctly emphasize that most emerging viruses have probably been present in animal reservoirs for some time and that animal-disease surveil-

lance must be boosted in order to prevent spillover to human populations. At the same time, this chapter is also the most disappointing in the book. It is ill-structured, confusingly jumping back-and-forth among different viruses; it contains some rather grave mistakes such as the labeling of ebolaviruses as "contagious" agents, as well as many orthographical mistakes, and is missing references for many statements.

Tommy R. Tong's subsequent fantastic review of the current knowledge on SARS coronavirus easily makes up for this disappointment. This chapter is among the best reviews of the history of SARS I have seen, clearly describing the unfolding of the 2002 epidemic in minute detail. Tong also describes the crucial role of international collaborations in bringing the epidemic to a halt, and nicely personalizes his descriptions by mentioning key figures of these efforts by name. I just wish Tong had cited more of the Chinese-language contributions to SARS research, considering that many of these important accounts are not easily available to Western scientists.

Amorsolo L. Suguitan, Jr. and Kanta Subbarao contribute a very nice overview of avian influenza viruses, warning convincingly about potentially imminent cross-species transmission events that could threaten public health by describing the molecular transmission factors and prerequisites in detail.

This chapter is followed by Theresa L. Smith's portrayal of the journey of West Nile virus from Africa and the Middle East to North America. Smith undertook the highly commendable effort to go beyond PubMed to cite numerous publications from before 1965. Through examining this literature, she correctly asserts that the clinical definition of West Nile fever of the 1940s is still accurate and thereby emphasizes the importance of research done several decades ago, which is only rarely cited today.

I also enjoyed Kurt D. Reed's brief introduction to monkeypox, a disease that has become increasingly important in central Africa. J. Clement, P. Maes, and M. van Ranst's chapter on hantaviruses is also very informative and well-written despite the use of too many abbreviations—so well written indeed that I wished it were longer. Vincent P. Hsu then contributes a chapter on henipaviruses, which is followed by the true treasure of the book: John S. Mackenzie, David T. Williams, and David W. Smith's review of Japanese encephalitis virus. This chapter is by far the best review on this virus I have encoun-

tered. The logical organization of the chapter and the arrangement of the myriad of epidemiological and serological data from numerous publications collected worldwide into one very readable account are breathtaking. The citation of many references from pre-PubMed days and of more recent ones not indexed in common databases complements the authors' profound knowledge of this virus, which luckily they share with the reader.

In my opinion, this chapter alone would have been worth spending the money for the book, but the reader gets even more: a nice overview of Dengue viruses by Ching-Juh Lai and Robert Putnak and a superb description of the history and current status of Crimean-Congo hemorrhagic fever virus research by Pierre Nabeth. Na-

both even procured English translations of hardly available Russian literature, thereby emphasizing the Soviet and Russian contributions to the field. The book ends with David Buckeridge and Geneviève Cadieux's description of current surveillance principles and strategies, numerous color pictures, and an unfortunately short index.

In summary, this book is a must for researchers and other professionals with an interest in emerging infectious diseases. Of course, some viruses, such as Chikungunya virus, have not been addressed in this volume; but for those viruses that are included, I cannot imagine a better introduction than this book. Edward Tabor and Elsevier will hopefully produce many more compendia along the lines of this volume.

Capsule

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What's new? What's hot? What's timely? If you don't have time to search the Internet for the latest developments that might impact your work environment, you just might find some of this information in the "Capsule" column. Please e-mail any comments or suggestions to ekrisiunas@aol.com or to Co-Editor Barbara Johnson at barbara_johnson@verizon.net or Co-Editor Karen B. Byers at karen_byers@dfci.harvard.edu.

Notice to Readers: New Public Health Emergency Law and Forensic Epidemiology Training Materials Released

CDC's Public Health Law Program has released version 3.0 of its Public Health Emergency Law and Forensic Epidemiology training materials on CD-ROM. These self-contained training packages were developed for use by instructors to provide public health preparedness training to front-line practitioners in any jurisdiction in the U.S.

Public Health Emergency Law is designed to help public health practitioners and emergency management professionals improve their understanding of how to use the law as a public health tool. Forensic Epidemiology is designed to help public health and law enforcement agencies strengthen coordination of responses to pandemic influenza and similar threats. Materials include a new CDC-developed case study on pandemic influenza.

Information on how to order a free CD-Rom with the two sets of training materials is available at www2.cdc.gov/phlp/phel.asp. Additional information is available via e-mail at fe-phel@mcking.com. For more information, visit: www.cdc.gov/mmwr/preview/mmwrhtml/mm5713a7.htm

Notice to Readers: Newly Licensed Smallpox Vaccine to Replace Old Smallpox Vaccine

CDC has begun distribution of a new-generation smallpox vaccine, ACAM2000™ (Acambis, Inc., Cambridge, Massachusetts), to civilian laboratory personnel, the military, and state public health preparedness programs. ACAM2000 is a live, vaccinia virus smallpox vaccine that was licensed for use in the U.S. by the Food and Drug Administration in August 2007. ACAM2000 will replace Dryvax® smallpox vaccine (Wyeth Pharmaceuticals, Inc., Marietta, Pennsylvania) because of withdrawal of the Dryvax license. ACAM2000 is a live vaccinia virus derived from plaque purification cloning from Dryvax. The safety data available from the ACAM2000 clinical trials indicate a similar safety profile to Dryvax. For more information, visit:

www.cdc.gov/mmwr/preview/mmwrhtml/mm5708a6.htm

Surveillance for Acute Viral Hepatitis—U.S., 2006

MMWR Surveillance Summaries, March 21, 2008/57(SS02), 1-24. Problem/Condition: In the U.S., acute viral hepatitis most frequently is caused by infection with three viruses: hepatitis A virus (HAV), hepatitis B virus (HBV), and hepatitis C virus (HCV). These unrelated viruses are transmitted through different routes and have different epidemiologic profiles. Safe and effective vaccines have been available for hepatitis B since 1981 and for hepatitis A since 1995. No vaccine exists against hepatitis C.

Reporting Period Covered: Cases in 2006, the most recent year for which data are available, are compared with those from previous years. For more information, visit: www.cdc.gov/mmwr/preview/mmwrhtml/ss5702a1.htm