

Book Reviews

One Health and the Politics of Antimicrobial Resistance

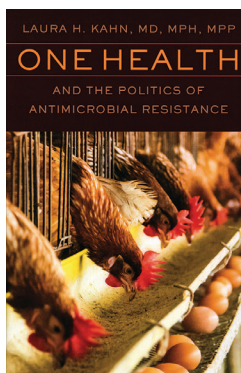
Laura H. Kahn

193 pages. 2016. Johns Hopkins University Press.
ISBN 978-1-4214-2004-2. Price 30.00.

One Health and the Politics of Antimicrobial Resistance is a must-read for all medical professionals and law makers. The book is packed with information that is comprehensive, data driven, impartial, and fair-minded. It is intended to enhance readers' understanding of the global "resistome" and the urgent need for implementation of often-overlooked actions that go far beyond the use of antimicrobials in the production of animal protein. After reading this book, readers will understand the governmental efforts that began in the 1970s to deal with antimicrobial resistance, one of the greatest challenges of our time.

The book begins with an overview of the global politics associated with the decisions to ban (Europe) or not ban (United States) the use of subtherapeutic levels of antimicrobials in food-producing animals for growth promotion. The author provides a brief history of how the use of subtherapeutic levels of antimicrobials for growth promotion began in 1948 and leads readers on a data-driven journey of the history of antimicrobial resistance in Britain; a summary of the overall experience regarding antimicrobial resistance in Europe, in particular the Swedish and Danish attempts to deal with the issue; and the controversy surrounding antimicrobial resistance in the United States. Multiple international challenges such as the availability of over-the-counter antimicrobials in many countries, open defecation and dumping of raw sewage by many countries into oceans, and how those practices translate into microbial resistance genes being freely transferred among bacteria and dispersed by wildlife are discussed.

We are only now beginning to glimpse the environmental impact that many current practices have on the global soil microbiome and food production and safety. The book concludes with the author suggesting that, with genome sequencing becoming affordable, it is imperative to gather genomic information to determine origins of antimicrobial resistant organisms. She urges the development of novel antimicrobial therapies (including bacteriophages) and suggests how to incentivize needed research. Some of her impartial findings



will surprise readers and completely recolor the current conversation on antimicrobial resistance. Give a copy of this book to your legislators today.

Reviewed by Cheryl Stroud, DVM, PhD
Executive Director, One Health Commission
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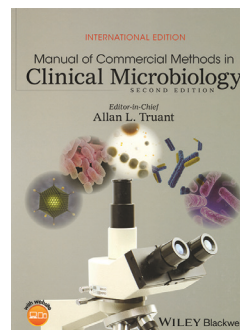
Manual of Commercial Methods in Clinical Microbiology: International Edition (2nd edition)

Allan L. Truant

594 pages. 2016. Wiley-Blackwell.
ISBN 978-1-118-13112-1. Price \$189.95.

The second edition of the *Manual of Commercial Methods in Clinical Microbiology: International Edition* is intended to be a current reference of commercially available tests, devices, and instruments used in clinical microbiology. The first edition contained 18 chapters that focused on US regulatory issues, rapid detection systems for bacteria and viruses, blood culture systems, diagnostic parasitology, automated serology, susceptibility testing, molecular methods, laboratory information systems, and specific pathogens such as HIV, *Chlamydia*, *Mycoplasma*, *Mycobacterium*, and emerging organisms. The second edition has been greatly updated and expanded to 35 chapters including new chapters on virology, viral hepatitis, automated molecular typing systems, specific pathogens such as human papillomavirus and rickettsiae, tickborne diseases, and bioterrorism. Additionally, there are 11 new chapters containing a synopsis of international clinical microbiology products and the regulatory requirements of selected countries including several in Europe and Asia, as well as Canada, Australia, South Africa, and Argentina.

The content of this book focuses primarily on human clinical microbiology; however, both the first and second editions include a chapter on Commercial Methods in Clinical Veterinary Microbiology coauthored by microbiologists from 3 colleges of veterinary medicine. That chapter is an informed summary that reveals issues associated with the use of human diagnostic systems in veterinary microbiology and includes references that document the accuracy of such systems when used to analyze samples of various animal origins. It includes a valuable description



and explanation of sample collection and transportation and the role of pathology in veterinary diagnostics and a particularly informative section on veterinary virology that provides details about virus detection and isolation, and various serologic and molecular methods for virus detection and characterization. The veterinary bacteriology section is well organized and provides helpful information about useful commercial tests for fastidious and species-specific pathogens. The parasitology and mycology sections have similar strengths. This chapter also contains contact information for federal service laboratories such as the USDA National Veterinary Services Laboratory and provides useful tips on how to find unique tests offered by state and university-associated diagnostic laboratories.

Although the majority of the book focuses on available tests for human pathogens, a reasonable amount of the reference information will be useful for veterinary diagnostic microbiologists. The inclusion of the chapter on veterinary clinical veterinary microbiology integrates the reference material in an informative manner. It is a comprehensive reference of available commercial diagnostic systems for laboratory managers seeking tools for enhancing efficiency and accuracy.

**Reviewed by Margie D. Lee, DVM, PhD
Poultry Diagnostic and Research Center
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Athens, Ga**

Veterinarian's Guide to Maximizing Biopsy Results

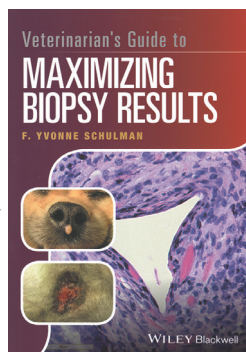
F. Yvonne Schulman

68 pages. 2016. Wiley-Blackwell.
ISBN 978-1-119-22626-0. Price \$39.99.

The *Veterinarian's Guide to Maximizing Biopsy Results* is a valuable resource for any veterinary clinic or hospital in which biopsy specimens are collected and submitted. The author comprehensively and effectively presents a multitude of sample submission guidelines to help ensure accurate and consistent pathology reports.

The book is divided into 2 chapters, or sections, and 21 subsections. The text is well referenced and indexed. The book was written for veterinarians, veterinary technicians, or hospital staff and is intended for those involved in the biopsy specimen collection and submission process. The book is easy to read and understand, is well illustrated, and includes a quick reference list of specimen requirements and details regarding specific organs and situations.

The first section of the book focuses on successful specimen submission, with details on specimen



collection including size, containers, labeling, and fixation. The second section is divided into 18 organ-specific subsections that provide details about specific approaches to specimen collection and address conditions, syndromes, or common challenges with appropriate recommendations.

The topics covered effectively address the challenges associated with collection and submission of biopsy specimens. Use of this guide will positively impact the quality and accuracy of downstream biopsy results.

**Reviewed by Jeremy Johnson, DVM, PhD, DACVP
IDEXX Laboratories Inc
Roseville, Calif**

Bats and Viruses: A New Frontier of Emerging Infectious Diseases

Lin-Fa Wang & Christopher Cowled

368 pages. 2015. Wiley-Blackwell.
ISBN 978-1-118-81873-2. Price \$149.95.

Bats and Viruses: A New Frontier of Emerging Infectious Diseases is a well-written book that will serve as an excellent reference for scientists studying bats and their related emerging infectious viral diseases. Several zoonotic diseases such as severe acute respiratory syndrome, Middle East respiratory syndrome, and Ebola have caused numerous human fatalities, and research indicates that bats play

a critical role in the maintenance and transmission of those pathogens. Therefore, this book is a timely resource for its intended audience. This book consists of 14 chapters that discuss a range of important topics including bat biology and physiology, bat viruses and their associated diseases in humans and animals, progress of current research on those viruses, and bat immunology and genomics. Each chapter was written by leading experts and contains general information about the topic being discussed, current research progress and conclusions, and future research directions along with multiple tables and figures and an extensive list of references. This important information will benefit future research into understanding the role of bats as reservoirs for emerging zoonotic viruses. This is a valuable book that provides current information on bats and the viruses that affect them and should be in every university library.

**Reviewed by Wenjun Ma, DVM, PhD
Kansas State University
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