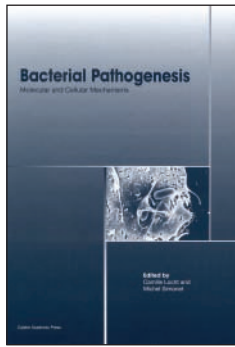


# Book Reviews: For Your Library

## Bacterial Pathogenesis: Molecular and Cellular Mechanisms

Reviewed by Thomas E. Besser, DVM, PhD



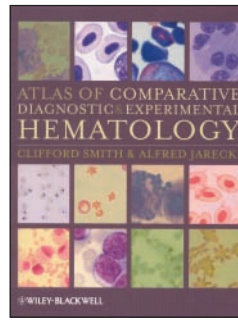
*Bacterial Pathogenesis: Molecular and Cellular Mechanisms* provides a state-of-the-art overview of bacterial pathogenesis, including general approaches to studying bacterial pathogenesis, bacterial adhesion, bacterial toxins, cellular invasion, and bacterial evasion of host defenses. The chapters are written by prominent scientists who represent eminent scientific institutes. The chapters vary in their approach to

coverage of the subject matter, ranging from simply providing key principles that are illustrated by 1 or 2 examples of specific pathogens to more in-depth reviews that comprehensively address the minor variations in strategies used by many pathogens relevant to each principle. Therefore, chapters may be more or less useful to readers with differing needs, with the key-principles approach more useful for an initial broad overview of the topic and the comprehensive approach more useful to those interested in the range of variation of strategies used by the various organisms.

I found chapters 6 (Biofilms) and 7 (Toxins Damaging Cell Membranes) to be outstanding examples of the broad overview approach. Chapter 10 (Bacterial Life in a Vacuole) is also excellent and is made more compelling by explicit consideration of the evolutionary implications underlying the mechanisms discussed. The book features many useful images, which are printed in black and white within the chapters and reprinted in larger-scale color illustrations in a special section that follows the Index. The book is generally clearly written and well edited. The readability is slightly affected by the style of citation used in the text (ie, author and year); some sections contain hundreds of references, which leads to multiple lines of citations following a single sentence. I would recommend this book as a resource for graduate students beginning their studies of bacterial pathogenesis as well as established investigators who are delving into a new area of bacterial pathogenesis research. Unfortunately, the purchase price of the book may represent a major obstacle, especially when compared with the prices for competing books in the field.—By Camille Locht & Michel Simonet. 378 pages; illustrated. Caister Academic Press, distributed by International Specialized Book Services, 920 NE 58th Ave, Ste 300, Portland, OR 97213. ISBN 978-1-904455-91-2. 2012. Price \$350.00.

## Atlas of Comparative Diagnostic & Experimental Hematology (2nd edition)

Reviewed by Elizabeth Spangler, DVM, PhD, DACVIM, DACVP



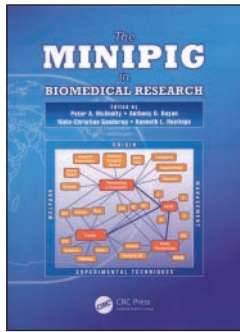
The second edition of the *Atlas of Comparative Diagnostic & Experimental Hematology* provides an overview of the expected hematologic findings for species commonly used in toxicologic studies. As an atlas, this book is primarily an organized collection of images and charts, with a brief discussion of findings that are characteristic of particular species. Revisions

from the first edition include examples of data provided by current hematologic analyzers and a chapter that discusses the application of flow cytometry. The first 6 chapters are divided on the basis of species (Rodent, Rabbit, Cat, Dog, Monkey, and Other) and include brief descriptions of the expected hematologic findings, charts that illustrate the reference values for animals of various ages, examples of output from various hematology analyzers, and an extensive collection of photomicrographs of blood and bone marrow smears. More than 400 photomicrographs are included in the book, and the quality is excellent. Additional chapters provide brief descriptions of methods for blood collection and sample preparation, an excellent discussion of artifacts that may be encountered, and an overview of various methods for collection of bone marrow samples and smear preparation. The final chapter is an introduction to flow cytometry and describes several applications of this technique. A short list of references is provided for each chapter. This book is not intended to address the interpretation of hematologic abnormalities associated with disease or to provide a detailed strategy for bone marrow analysis and interpretation. This book may not be useful for the typical veterinary student or practitioner, but it is an excellent resource for those involved in preclinical studies on toxicosis.—By Clifford Smith & Alfred Jarecki. 137 pages; illustrated. Wiley-Blackwell, 2121 State Ave, Ames, IA 50014. ISBN 978-1-4051-7107-6. 2011. Price \$99.99.

## The Minipig in Biomedical Research

Reviewed by Stacy Pritt, DVM, MS, MBA

*The Minipig in Biomedical Research* seeks to provide a comprehensive review of the use of, techniques for, and normative values in minipigs for biomedical research. As stated by the authors, many times minipigs are passed over for use in animal studies because of a lack of centrally located information regarding physiology, dosing techniques, relative advantages, and back-



ground data on minipigs. This book provides such a resource to promote the appropriate use of this species in biomedical research.

To cover a wide range of topics, from basic husbandry and management, to animal welfare, to diseases, to specific research models based primarily on organ systems, the chapters are relatively short when compared with those in other textbooks.

The authors draw on experiences from academic, breeding, governmental, industrial, and international facilities, which provide this book with a well-rounded approach to its topic. All of the chapters contain appropriate references and provide specific physiologic val-

ues that many researchers and testing laboratories will find useful. A set of color photographs in the middle of the book is worthy of mention, although some of the ocular photographs are out of focus. Most chapters contain black-and-white photographs, drawings, or tables. A few chapters without illustrations could have been strengthened by their inclusion.

True to its title, the book contains little clinical information. Veterinarians seeking clinical information on minipigs should consult other textbooks. Researchers, including veterinary researchers, will find the book refreshing in its complete coverage of the various published minipig research models.—By Peter A. McAnulty, Anthony D. Dayan, Niels-Christian Ganderup, & Kenneth L. Hastings. 643 pages; illustrated. CRC Press, Taylor & Francis Group, 6000 Broken Sound Pkwy NW, Ste 300, Boca Raton, FL 33487. ISBN 978-1-4398-1118-4. 2012. Price \$189.95.