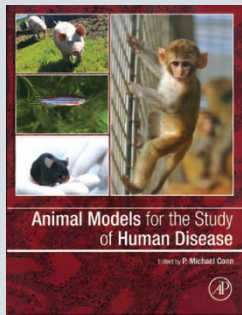


An anthology of animal models

Reviewed by Stephen Griffey, DVM, PhD



ANIMAL MODELS FOR THE STUDY OF HUMAN DISEASE

Edited by P. Michael Conn

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Animal Models for the Study of Human Disease is a first edition reference text that may be useful to all researchers who use animals as their primary experimental model system. In addition, this volume may be useful to clinicians or others working with specific animal species for a better overall understanding of managing conditions and issues of individual animal models used in research. The authors have accomplished the daunting task of covering the breadth of multiple species of animal models currently being used in research. The editor acknowledges in the preface that some models were omitted owing to page limitations, but overall, the content (figures, tables and descriptions of the animal models and their significance) is excellent and should be considered a useful resource.

The book begins with a section on 'Ethics, Resources and Approaches'. This section provides an excellent overview of the history, ethical considerations, resources and environmental enrichment of animals used in research. This is good starting point to give a better understanding of the complexities inherent to utilizing animals as a scientific tool to any investigators who are contemplating using animals in their research. The sections that follow are organized by body systems (visual; cardiac and cardiovascular; metabolic and liver; bone and skin; urinary tract,

kidney and bowel; and the brain and neuromuscular). The final sections are very good and are organized by discipline (behavior, genetics, early life) or by disease (viral diseases, cancer, and sclerosis); these sections provide information that may not have fit within the organ system sections.

The overall organization of the book seems somewhat arbitrary in some cases. For example, discussing animal models of urinary tract diseases in the same section as animal models of inflammatory bowel disease does not make much sense, particularly since this section is in the only chapter on gastrointestinal tract models. Additionally, the section on bone and skin has no specific chapters or descriptions of models of skin diseases, with the exception of scleroderma, which is actually a multisystemic disease. There is considerable redundancy, with multiple descriptions of the same animal models under different headings. For example, Chapter 19 contains a subsection titled 'Animal models of Fibrosis in Scleroderma' that is accurately indexed under 'scleroderma.' There is also a chapter titled 'Animal Models of Systemic Sclerosis' within the Sclerosis section that discusses many of the same models as are discussed in Chapter 19; however, these are indexed under 'systemic sclerosis' and not under 'scleroderma.' Content such as Figure 41.1, which shows an excellent photo of bleomycin-induced scleroderma, also is not indexed under 'scleroderma.' The content of both of these chapters is excellent, but they have substantial overlap in material that would have been better presented if combined into a single chapter or, at the very least, cross-indexed.

Furthermore, future editions could improve upon this book by adding a separate index for animal models listed by species. This might decrease the chance of missing useful material that is not otherwise cross-referenced and would also make it a more appealing resource for investigators interested in particular species.

Despite the somewhat cumbersome organization, this is the most current and broadest reference available for animal models of different species. Any laboratory animal research program, particularly those with an interest in working with multiple species of animal models, would benefit from having this book in the library.

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