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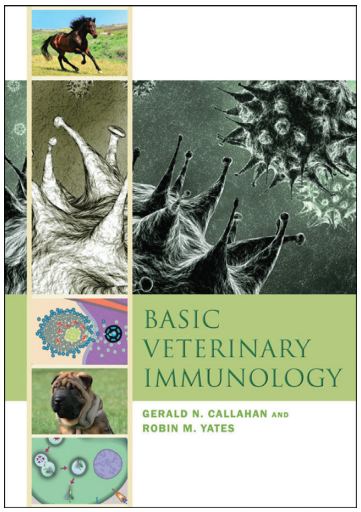
BOOK REVIEW

Basic veterinary immunology. GN Callahan and M Yates. University Press of Colorado, 2014. 337 pages. A$135.99. ISBN 9781607322184.



This very well-written and illustrated book was designed to fill a gap in resources for teaching veterinary immunology and the authors have certainly achieved this aim.

There are 18 chapters, each beginning with a clinically relevant veterinary example and a set of learning objectives. One aspect of veterinary immunology is then presented in the context of the clinical example. Each chapter ends with a student review exercise.

The first chapter is an overview of the mechanisms of disease, discussed in the context of simian acquired immune deficiencies. The next five chapters cover the innate immune system. The veterinary examples used in these chapters include cyclic neutropenia in gray Collies, sepsis in neonatal foals, C3 deficiency in Brittany dogs, rattles in foals and acute bovine mastitis. Following this are seven chapters that present aspects of the adaptive immune system, including the cells and organs involved, antigens and antigen processing, T-lymphocyte development and activation, B-cell development and activation, and adaptive immune responses to infections and immunological memory. The veterinary examples used are again highly relevant and will be of interest to students; for example, feline lymphadenopathy, severe combined immunodeficiency disease in Arabian foals, canine X-linked severe combined immunodeficiency, equine agammaglobulinaemia, selective immunoglobulin A deficiencies in dogs, canine parvovirus and caprine arthritis–encephalitis virus. The next four chapters discuss specific issues in veterinary immunology, including fetal and neonatal immunity, vaccination, immune deficiencies and immune-mediated disease, and the immune system and cancer. The final chapter, which covers veterinary clinical laboratory immunology, includes a useful discussion of transfusion reactions and blood typing that students will find of interest.

The superb illustrations in this book, as well as the clarity of the writing (one of the authors has a dual appointment in the Department of Microbiology, Immunology and Pathology and in the Department of English at Colorado State University), mean that some of the more difficult concepts in immunology are presented in a way that will facilitate student learning. The clinical examples and review exercises will also assist with this. I highly recommend this book to those involved in teaching immunology to veterinary students.

J Lloyd
Dr Joan Lloyd has a Masters degree in veterinary pathology and a PhD in veterinary immunology from the University of Sydney and has worked in veterinary research for the past 20 years.

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