

## Veterinary Immunology 9e

Brucellosis is one of the most important zoonotic diseases world-wide. This book focuses on host natural resistance and innate immunity against *Brucella* infection. The impact of Johne's disease, a chronic, granulomatous enteritis of ruminants and some wild-type species is examined as well. In addition, the molecular and cellular mechanisms of DNA vaccines are addressed in this book, as well as the optimisation strategies that are currently pursued to harness the therapeutic and commercial advantages of DNA vaccination. Moreover, immune responses may substantially differ between conventional laboratory antigens and microbial ones. This book focuses on the experimental pulmonary tuberculosis as a convenient in vivo model to study the disease, providing important advantages over other models. Other chapters examine the defence mechanisms of several flatfish species, which is a main priority to prevent economic losses. The role of the intestine in the immune response in all vertebrates is examined as well, including its cellular components.

Gnotobiotics summarizes and analyzes the research conducted on the use of gnotobiotics, providing detailed information regarding actual facility operation and derivation of gnotobiotic animals. In response to the development of new tools for microbiota and microbiome analysis, the increasing recognition of the various roles of microbiota in health and disease, and the consequent expanding demand for gnotobiotic animals for microbiota/microbiome related research, this volume collates the research of this expanding field into one definitive resource. Reviews and defines gnotobiotic animal species Analyzes microbiota in numerous contexts Presents detailed coverage of the protocols and operation of a gnotobiotic facility

The most recent revision of this comprehensive text covers the bacterial, fungal, and viral pathogenic agents that are significant causes of animal disease. The focus includes pathogenic mechanisms and processes in infectious diseases; methods of diagnosis; and principles of resistance, prevention, and therapy. *Veterinary Microbiology, Second Edition* is now organized in four sections according to the most appropriate methods of instruction. Section 1 deals with the general characteristics of the host – parasite relationship, laboratory diagnosis of conditions involving an infectious etiology, antimicrobial treatment, and prevention of infectious disease. Sections 2 (bacteria and fungi) and 3 (viruses) present the infectious agents that affect the veterinary species. The chapters dealing with the bacterial agents are grouped mainly by morphology, and their gram-staining characteristics. The fungal agents are grouped mainly by morphologic characteristics (yeast, mold). The viruses are grouped along taxonomic grounds. Section 4, an enhancement new to this edition, deals with the infectious agents in the context of the host. This section is organized by organ system. Each organ system is discussed first as a microbial habitat, followed by discussion of those infectious agents that mainly affect that particular system. In addition to serving as a resource for veterinary students, *Veterinary Microbiology, Second Edition* also serves as a convenient reference for veterinarians and veterinary scientists whose main line of activity and expertise is outside the areas of microbiology.

*Case Studies in Veterinary Immunology* presents basic immunological concepts in the context of actual cases seen in clinics. It is intended for veterinary medicine students, interns, residents, and veterinarians, and serves as a valuable supplement and companion to a variety of core immunology textbooks and courses. The book includes cases describing primary immune system defects, secondary immune system defects, and hypersensitivity and autoimmune disorders, as well as dysproteinemias and lymphoid neoplasia. Drawing on the successful approach of Geha 's

Case Studies in Immunology, each representative case is preceded by a discussion of the principles underlying that specific immunological mechanism. The case itself includes the presenting complaint (signalment), physical examination findings, pertinent diagnostic laboratory data, diagnosis, and treatment options. In those instances in which a specific disorder occurs in both animals and humans, the differences and similarities in the immunological mechanisms and manifestations of the disease are explored. End of case questions highlight important concepts and serve as a review aid for students. Details on standard vaccines and vaccination schedules, as well as descriptions of the types of assays used for evaluation of the immune system, are included as appendices.

Human and Animal Models

Gnotobiotics

Basic Veterinary Immunology

Avian Immunology

Principles and Practice, Second Edition

This book accompanies and complements the teaching of immunology within the veterinary curriculum. It covers large and small animals and provides clear learning objectives focusing on immunological principles while applying them to the disease process and to clinical practice. The book is case based and illustrated throughout in color.

The only complete resource on immunology for veterinary students and practitioners, *Veterinary Immunology: An Introduction* features a straightforward presentation of basic immunologic principles with comprehensive information on the most significant immunological disorders and responses seen in domestic animals. This meticulously updated new edition explores the latest advances in the field and provides a wealth of clinical examples that illustrate and clarify important concepts. Comprehensive coverage of vaccines and vaccine usage, allergies and allergic diseases, and autoimmunity and immunodeficiencies, prepare you for the multiple immunologic issues you will encounter in practice. A wealth of clinical examples clearly illustrate key concepts and offer practical strategies for diagnosing and treating immunologic disorders in the clinical setting. More than 500 full-color diagrams and illustrations visually demonstrate and clarify complex issues. Completely updated sections on immunity includes new chapters on natural killer (NK) cells and systemic responses to infection to ensure you have the most up-to-date information. New information on genomics and molecular diagnostic techniques explores how the emerging field of genomics impacts disease resistance and immunology in general, as well as the diagnosis and treatment of immunological and infectious diseases. Updated content includes new information on well-recognized older diseases such as rheumatoid arthritis, systemic lupus, and inflammatory bowel disease, as well as current information on new diseases such as devil facial tumor disease and bovine neonatal pancytopenia. Expanded coverage brings you up-to-date knowledge on resistance to infection, such as vaccine usage, especially with respect to duration of immunity, the effects of key vitamins on immune responses, the effects of old age on immunity, and both antiviral and parasitic immunity. Diagnostic tests described throughout include a new section on the analysis of ELISA test data, as well as a brief summary of molecular diagnostic techniques. Coverage reflects a significant change in the overall view of immunology provides you with the foundational knowledge needed to grasp the broad pattern of immunologic reactions and understand how the immune system functions as an interconnected network, rather than a series of independent pathways. New discussions of the critical importance of commensal bacteria and intestinal flora explain help you understand the importance of this normal flora with respect to antibacterial immunity, allergies, and autoimmunity, while at the same time providing a broader view of

animal body and its microflora as a "superorganism." A discussion of the importance of adipose tissue in immunity and inflammation adds to the epidemic of obesity in domestic pets and the extraordinary growth rates expected of domestic livestock. The section on inflammatory mechanisms has been divided into separate chapters focusing on the detection of invaders and the mediators of inflammation to incorporate a vast amount of new information on pattern recognition receptors and the ways in which they warn the body of microbial invasion. Veterinary Immunology: Principles and Practice has become the adopted text in numerous veterinary schools throughout the world. Widely updated with advances in knowledge since 2011, this second edition reflects the rapid development in the field. The new edition presents information on commonly used diagnostic test procedures and discusses

Revised edition of: Veterinary immunology / Ian R. Tizard. 9th ed. c2013.

Immunoglobulins—Advances in Research and Application: 2012 Edition

The Clinical Chemistry of Laboratory Animals

Fenner's Veterinary Virology

The Innate Immune Response to Noninfectious Stressors

Cellular and Molecular Immunology E-Book

**Designed to fill the current gap in resources for teaching veterinary immunology, Basic Veterinary Immunology offers a solid background in the essentials of immunology within the context of veterinary medicine. The book combines a clinical framework complete with real-world examples to integrate the theory and practice of veterinary medicine. Each chapter begins with a clinically relevant veterinary issue and then presents one aspect of basic immunology in the context of that issue. All chapters include learning objectives and a clinical correlation follow-up section that includes student considerations and a review of the possible explanations for the clinical presentation. Illustrated with 250 full-color images and figures that will also be available as PowerPoint teaching aids, Basic Veterinary Immunology and related materials will be made available online to students, faculty, and clinical veterinarians in partnership with the Veterinary Information Network. Basic Veterinary Immunology will provide students with a good working knowledge of veterinary immunology that will serve them both in the completion of their curricula and in professional practice.**

**We acknowledge the initiation and support of this Research Topic by the International Union of Immunological Societies (IUIS). We hereby state publicly that the IUIS has had no editorial input in articles included in this Research Topic, thus ensuring that all aspects of this Research Topic are evaluated objectively, unbiased by any specific policy or opinion of the IUIS.**

**Equine Clinical Immunology offers comprehensive information on equine immunological disorders. • Provides a complete, equine-specific reference on clinical immunology • Focuses on clinically relevant information for the diagnosis and treatment of horses with immune disorders • Illustrates the concepts discussed using drawings, photographs, and tables • Presents key concepts, clinical assessment information, and treatment approaches in text boxes for ease of use • Offers a practical, clinically oriented approach ideal for equine specialists**

**Exploring the immunologic concerns of both large and small animals, *Veterinary Immunology: An Introduction*, 10th Edition is the only complete resource on immunology for veterinary practitioners. This new edition has been meticulously updated to continue its trend of incorporating the latest advances and topics in the field. It features a straightforward presentation of basic immunologic principles along with thorough and timely information on the most significant immunologic diseases and responses seen in domestic animals. Comprehensive coverage clearly explains the general principles of immunology, and provides information on the most significant immunologic diseases and immunologic responses seen in domestic animals and marine mammals. A wealth of clinical examples show how principles will be experienced and addressed in the clinical setting. Educator and student resources on Evolve feature an image collection, enhanced animations, flashcards, content updates, and a test bank for instructors. Improved images clarify new content and enhance your understanding. NEW! Updated content covers new T cell subpopulations, newly described interleukins; new approaches to cancer immunotherapy; immunology of fish; and new advances in genomics. NEW! Learning objectives have been added to the beginning of each chapter. NEW! Chapter on commensal bacterial will address the role of commensal bacteria in veterinary immunology and provide convincing explanations for previously poorly understood phenomena. NEW! Information on the pathogenesis and treatment of atopic dermatitis has been added to help inform veterinarians who treat pets with dermatologic conditions. NEW! Revised content on cancer immunology reflects the vast expansion of information that has been uncovered in the past five years. NEW! Expanded information on the role of nutrition in animal immunity offers a rational basis for examining data of those who claim nutritional benefits. NEW! Full-color histologic images replace black and white images to more effectively convey concepts.**

**Veterinary Microbiology**

**Equine Internal Medicine - E-Book**

**Immunology and Vaccination, An Issue of *Veterinary Clinics of North America: Small Animal Practice***

**Georgis' Parasitology for Veterinarians**

**Toxocara**

The Innate Immune Response to Non-infectious Stressors: Human and Animal Models highlights fundamental mechanisms of stress response and important findings on how the immune system is affected, and in turn affects such a response. In addition, this book covers the crucial link between stress response and energy metabolism, prompts a re-appraisal of some crucial issues, and helps to define research priorities in this fascinating, somehow elusive field of investigation. Provides insights into the fundamental homeostatic processes vis-à-vis stressors to help in investigation Illustrates the depicted tenets and how to offset them against established models of response to physical and psychosocial stressors in both animals and humans Covers the crucial issue of the immune response to endocrine disruptors Includes immunological parameters as reporter system of environmental adaptation Provides many illustrative examples to foster reader understanding

Immunoglobulins—Advances in Research and Application: 2012 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Immunoglobulins. The editors have built Immunoglobulins—Advances in Research and Application: 2012 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Immunoglobulins in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Immunoglobulins—Advances in Research and Application: 2012 Edition has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at <http://www.ScholarlyEditions.com/>.

This book provides in-depth information about common clinical laboratory assays that are used to evaluate domestic mammals, including what assays measure, sample or assay conditions that affect results, and what results indicate about the physiologic or pathologic state of a patient. Whenever possible, diseases and conditions are grouped by common mechanisms or processes to promote a conceptual understanding of laboratory data that can be generally applied across many species. New to the second edition are additional disorders, diagnostic tests, illustrations, images, references, and pathophysiologic explanations. This text has proven valuable to students and veterinarians wanting a fundamental understanding of veterinary clinical pathology.

Animal Science Reviews 2012 provides scientists and students in animal science with timely analysis on key topics in current research. Originally published online in CAB Reviews, this volume makes available in printed form the reviews in animal science published during 2012.

Recent Advances in Veterinary Immunology Concepts and Methodology

Vaccines for Veterinarians E-Book

Veterinary Allergy

Review Questions and Answers for Veterinary Technicians E-Book

The Enigmatic Parasite

***This issue of Veterinary Clinics of North America: Small Animal Practice focuses on Immunology and Vaccination, with topics including: Recent Advances In Vaccine Technologies; Immune System's Response to Vaccination; Current Vaccine Strategies for Dogs and Cats; Update on Therapeutic Vaccines; Common and Newly Recognized Autoimmune Diseases; Adverse Response to Vaccination; Vaccines in Shelters and Group Settings; Evidence vs Belief in Vaccine Recommendations; Effects of Aging on the Immune Response; and Use of Antibody Titer to Determine the Need for Vaccination. This issue focuses on pediatric disorders in dogs and cats. Topics will include: clinical pathology of dogs and cats, pediatric neutering, pediatric immunization, nutrition, seizure disorders, canine pediatric dentistry, pediatric feline upper respiratory disease, neonatal fading syndrome, holistic pediatric medicine, management of the cleft palate, and urinary ectopia.***

***This book contains 19 chapters focusing on Toxocara and the disease it causes known as toxocariasis. The chapters are divided into the following parts: molecular biology (3 chapters); Toxocara as a model system (2); animal models for toxocariasis (1); human disease (4); immunology of toxocariasis (2); epidemiology of toxocariasis (3); Toxocara in the veterinary context (3); economic impact of the disease (1). It will interest a wide range of general, veterinary and medical parasitologists as well as clinicians and those concerned with public health.***

***Now in full color, this comprehensive reference provides current information on all parasites commonly encountered in veterinary medicine. This edition also covers organisms that infect poultry, laboratory animals, and exotic species.***

***Veterinary Immunology***

***Toxoplasmosis***

***Veterinary Immunology 10th Edition***

***Sheep, Goat, and Cervid Medicine - E-Book***

***Case Studies in Veterinary Immunology***

*The book is intended to the students involved in the study of microbiology, immunology, and animal reproduction as an introduction to more extensive studies. An overview of immunology is provided in the book to refer immediately any basic information needed, for further understanding of the subject dealt in this book. The chapters covered may provide the structural component for the basic understanding of the reproductive immunology in animals. It is designed to complement, but not to compete with the few books available with regard to reproduction. The book is profusely illustrated with figures and tables. The concise nature of the book and the simple and clear treatment of the topics, it is hopefully will prove to be useful to all.*

*Fenner's Veterinary, Virology, Fourth Edition, is the long awaited new edition of Veterinary Virology, 3e, which was published in 1999. Fully revised and updated by the new author team, part I presents the fundamental principles of virology related to animal infection and disease, and part II addresses the clinical features, pathogenesis, diagnosis, epidemiology and prevention of individual diseases. New to this Edition New author team - one main author to ensure that the book reads like an authored book but with the benefit of using experts to contribute to specific topics Text has been refocused - part I has been condensed and where appropriate incorporated into part II to make it more user friendly The number of figures have been increased and are now in full color Fully revised and updated to include the latest information in the field of veterinary virology Beautifully illustrated color figures throughout Organized and current information provided by an expert team of authors*

*Veterinary Microbiology, Third Edition is a comprehensive reference on the bacterial, fungal, and viral pathogenic agents that cause animal disease. Now in full color with improved images throughout, the new edition has been thoroughly updated to reflect information from current research and diagnostic and clinical publications. Key changes include a review of microbial cell structure and function and increased emphasis on the key points of pathogenesis and host responses to infection. Organized into four sections, the Third Edition begins with an updated and expanded introductory section on infectious disease pathogenesis, diagnosis and clinical management. The second section covers bacterial and fungal pathogens, and the third section describes viral diseases and viruses. The final section presents a systematic approach of describing infection and disease of animals. Equally useful for beginning veterinary students and seasoned practitioners, Veterinary Microbiology offers a thorough introduction and reference text for veterinary infectious disease.*

*Mastitis, an inflammation of the mammary glands, is the most costly disease in dairy farming, mainly caused by a broad range of bacteria categorized into contagious and environmental bacteria. This book is a concise summary of mastitis in dairy cattle, sheep, and goats, which mainly focuses on etiological agents, epidemiology, pathogenesis, clinical manifestation, pathological and histopathological changes, diagnosis, prevention, and control measures. This book serves as a textbook on mastitis in dairy cattle, sheep, and goats for dairy veterinarians, veterinary students, animal science students, dairy technicians, animal health professionals. Several researchers worldwide contributed to this book. This book contains the latest information on mastitis in dairy cattle, sheep, and goats and antimicrobial usage to prevent and control mastitis.*

*A textbook of the diseases of cattle, horses, sheep, pigs and goats*

*Immunology of Animal Reproduction*

*Mosby's Comprehensive Review for Veterinary Technicians - E-Book*

*Principles and Practice*

*Equine Genomics*

***The current state of knowledge on this increasingly important subject is beautifully described in this, the first truly comprehensive text of allergic diseases affecting the major veterinary species. It will be an invaluable guide to students, clinicians and researchers alike. From the Foreword by Professor Richard Halliwell, MS, PhD, VetMB, MRCVS, Dip ACVD Veterinary Allergy is the first comprehensive, high quality reference dealing with all aspects of veterinary allergy in all species and all body systems involved with allergy. Providing solid breadth and excellent depth of coverage, it deals with the immunopathology of***

***the various allergic conditions as well as with clinical presentation, diagnosis and treatment of veterinary allergic diseases. Key features: Broad species coverage, organised by sections on dogs, cats, horses, and other domestic species including large animals, birds and small mammals Provides details on diseases affecting the skin, respiratory tract and gut Contains practical information for clinicians on management of allergic diseases Includes fully-referenced high level detail suitable for specialists and researchers Focused on evidence-based medicine and science The editors have extensive experience and are respected as world-wide experts in the field Every chapter is written by an expert in that particular topic Anyone seeking information and references on any aspect of allergic conditions in any species should find this book helpful. The book will be of interest to clinicians in first opinion practice, specialists in veterinary dermatology, gastroenterology, internal medicine, and immunology as well as specialists-in-training in those fields and veterinary students. The focus on underlying principles and practical clinical aspects is admirable. Immediately useful for practical utilization by practicing clinicians. Dr. Andrew Mackin BSc BVMS MVS DVSc FACVSc DSAM, Diplomate, American College of Veterinary Internal Medicine, Professor and Service Chief, Small Animal Internal Medicine, Dr. Hugh G. Ward Endowed Chair of Small Animal Veterinary Medicine, College of Veterinary Medicine, Mississippi State University, USA***

***Prepare for VTNE success! Review Questions and Answers for Veterinary Technicians, 6th Edition provides 5,000 VTNE-style questions that have been reviewed and updated to reflect the latest changes to the Veterinary Technician National Examination. The book begins with multiple-choice questions on basic knowledge, including anatomy and physiology, hospital management, calculations, and terminology. It continues with a Q&A review of core subjects such as pharmacology, surgical nursing, laboratory procedures, diagnostic imaging, and pain management. Written by veterinary technology educator Heather Prendergast, this review includes an Evolve website allowing you to create customized, timed practice exams that mirror the VTNE experience. More than 5,000 multiple-choice questions are rigorously reviewed, mirror the type of questions found on the VTNE, and are designed to test factual knowledge, reasoning skills, and clinical judgment. Detailed rationales are included in the print text and on the Evolve website, reinforcing student knowledge and providing the reasoning behind answers. Organization of the book into primary subject areas reflects the latest version of the VTNE. Customized exam generator on Evolve offers a simulated test-taking experience with customized***

**practice tests and timed practice exams with instant feedback and extended rationales. NEW! More than 200 new questions are added to this edition.**

**Cellular and Molecular Immunology takes a comprehensive yet straightforward approach to the latest developments in this active and fast-changing field. Drs. Abul K. Abbas, Andrew H. Lichtman, and Shiv Pillai present sweeping updates in this new edition to cover antigen receptors and signal transduction in immune cells, mucosal and skin immunity, cytokines, leukocyte-endothelial interaction, and more. This reference is the up-to-date and readable textbook you need to master the complex subject of immunology. Recognize the clinical relevance of the immunology through discussions of the implications of immunologic science for the management of human disease. Grasp the details of experimental observations that form the basis for the science of immunology at the molecular, cellular, and whole-organism levels and draw the appropriate conclusions. Stay abreast of the latest advances in immunology and molecular biology through extensive updates that cover cytokines, innate immunity, leukocyte-endothelial interactions, signaling, costimulation, and more. Visualize immunologic processes more effectively through a completely revised art program with redrawn figures, a brighter color palette, and more 3-dimensional art. Find information more quickly and easily through a reorganized chapter structure and a more logical flow of material.**

**The second edition of Avian Immunology provides an up-to-date overview of the current knowledge of avian immunology. From the ontogeny of the avian immune system to practical application in vaccinology, the book encompasses all aspects of innate and adaptive immunity in chickens. In addition, chapters are devoted to the immunology of other commercially important species such as turkeys and ducks, and to ecoimmunology summarizing the knowledge of immune responses in free-living birds often in relation to reproductive success. The book contains a detailed description of the avian innate immune system, encompassing the mucosal, enteric, respiratory and reproductive systems. The diseases and disorders it covers include immunodepressive diseases and immune evasion, autoimmune diseases, and tumors of the immune system. Practical aspects of vaccination are examined as well. Extensive appendices summarize resources for scientists including cell lines, inbred chicken lines, cytokines, chemokines, and monoclonal antibodies. The world-wide importance of poultry protein for the human diet, as well as the threat of avian influenza pandemics like H5N1 and heavy reliance on vaccination to protect commercial flocks makes this book a vital resource. This book provides crucial**

**information not only for poultry health professionals and avian biologists, but also for comparative and veterinary immunologists, graduate students and veterinary students with an interest in avian immunology. With contributions from 33 of the foremost international experts in the field, this book provides the most up-to-date review of avian immunology so far Contains a detailed description of the avian innate immune system reviewing constitutive barriers, chemical and cellular responses; it includes a comprehensive review of avian Toll-like receptors Contains a wide-ranging review of the "ecoimmunology" of free-living avian species, as applied to studies of population dynamics, and reviews methods and resources available for carrying out such research**

**Mastitis in Dairy Cattle, Sheep and Goats**

**Special Issue**

**Veterinary Immunology - E-Book**

**Fundamentals of Veterinary Clinical Pathology**

Get practical answers from the only guide on the care of sheep, goats, and cervids! Authoritative yet easy to read, Sheep, Goat and Cervid Medicine, 3rd Edition covers all the latest advances in the field, including diseases and medical treatment, surgery, pain management, theriogenology, and nutrition. Clear instructions and hundreds of full-color photographs guide you step by step through common procedures including restraint for examination, administration of drugs, blood collection, and grooming. New to this edition is coverage of deer and elk medicine, reflecting the growing interest in these ruminants. Written by an expert team led by Dr. D.G. Pugh, this comprehensive reference is ideal for veterinarians and also for owners of sheep and goats. Clear writing style and consistent organization makes the book easy to understand and use, with disease chapters including pathogenesis, clinical signs, diagnosis, treatment, and prevention. Coverage of both surgery and medicine in each body systems chapter makes it easier to choose between treatment options for specific disorders. Superbly illustrated surgical procedures clearly demonstrate the steps to follow in performing medical and reproductive surgery. Diverse, expert contributors include the most experienced authorities, each providing current information on the care of valuable breeding stock as well as pets. Useful appendixes, now including veterinary feed directives, offer convenient access to information on drugs and drug dosages, fluid therapy, and normal values and conversions. Consistent, logical format in each body systems chapter makes information easy to find by beginning with physical examination and diagnostic procedures, followed by discussions of common diseases that involve the system. Comprehensive Feeding and Nutrition chapter covers diet evaluation, method of balancing rations,

total parenteral nutrition, and examples of nutritious diets. Explanation of the differences in normal behavior between sheep and goats shows how they are not the same, and require different methods of treatment. NEW! Coverage of cervids has been added to chapters throughout the book, reflecting the growing popularity of deer and elk. NEW! Thorough content updates are made throughout the book and reflect the latest research evidence. NEW! 170 new clinical photos have been added. NEW! Anesthesia and Pain Management chapter includes a new section on pain management strategies, reflecting the emphasis on controlling pain in small ruminants. NEW! Expert Consult website offers an online version of the book, making it easy to search the entire book electronically. NEW! Two new authors are respected and well-known veterinary medicine experts and educators: Dr. Misty Edmondson and Dr. Thomas Passler.

Analysis of the equine genome began just over a decade ago, culminating in the recent complete sequencing of the horse genome. The availability of the equine whole genome sequence represents the successful completion of an important era of equine genome analysis, and the beginning of a new era where the sequence information will catalyze the development of new tools and resources that will permit study of a range of traits that are economically important and are significant to equine health and welfare. Equine Genomics provides a timely comprehensive overview of equine genomic research. Chapters detail key accomplishments and the current state of research, as well as looking forward to possible applications of genomic technologies to horse breeding, health, and welfare. Equine Genomics delivers a global overview of the topic and is seamlessly edited by a leading equine genomics researcher. Equine Genomics is an indispensable source of information for anyone with an interest in this increasingly important field of study, including equine genomic researchers, clinicians, animal science professionals and equine field veterinarians.

Clinical Biochemistry of Domestic Animals, Second Edition, Volume I, is a major revision of the first edition prompted by the marked expansion of knowledge in the clinical biochemistry of animals. In keeping with this expansion of knowledge, this edition is comprised of two volumes. Chapters on the pancreas, thyroid, and pituitary-adrenal systems have been separated and entirely rewritten. Completely new chapters on muscle metabolism, iron metabolism, blood clotting, and gastrointestinal function have been added. All the chapters of the first edition have been revised with pertinent new information, and many have been completely rewritten. This volume contains 10 chapters and opens with a discussion of carbohydrate metabolism and associated disorders. Separate chapters follow on lipid metabolism, plasma proteins, and porphyrins. Subsequent chapters deal with liver, pancreatic, and thyroid functions; the role of the pituitary and adrenal glands in health and disease; the function of calcium, inorganic phosphorus, and magnesium metabolism in health and disease; and iron metabolism.

Confidently diagnose, treat, and manage patient conditions with the only comprehensive book on the market devoted

solely to equine internal medicine. Filled with fully updated content on principles of treatment and contributions from internationally known equine experts, *Equine Internal Medicine, 4th Edition* focuses on the basic pathophysiologic mechanisms that underlie the development of various equine diseases. A problem-based approach outlines how to apply the latest clinical evidence directly to the conditions you will encounter in practice. A new companion website with over 120 video clips presents diseases and disorders that cannot be explained as well through words Updated information throughout, including the most recent drug information. Current and well-referenced content on equine diseases and treatment techniques cites the latest books and journals. Internationally known equine experts present information on problems affecting horses throughout the world — and provide contributions that enable practitioners and students to approach disease and treatment of equine patients with more authority and understanding. User-friendly exterior and interior design makes the book appealing to both the equine internal medicine practitioner and the veterinary student. Easy-to-find information facilitates a more thorough understanding with minimal frustration. Organized and consistent coverage among chapters allows you to easily find information on a specific topic. NEW! Fully updated and revised sections on disorders and principles of treatment. NEW! Problem-based approach outlines how to apply the latest clinical evidence directly to the conditions you will encounter in practice. NEW! Pathophysiology is emphasized throughout, providing a sound basis for discussions of the diagnosis, treatment, and prognosis that follow. NEW! Body systems chapters begin with a thorough discussion of the diagnostic method appropriate to the system, including physical examination, clinical pathology, radiography, endoscopy, and ultrasonography. NEW and UNIQUE! Companion website includes more than 120 video clips linked to content from chapters on cardiovascular and neurologic system disorders. NEW! Flow charts, diagrams, and algorithms clarify complex material.

Veterinary Immunology and Immunopathology

Clinical Biochemistry of Domestic Animals

Pediatrics, *An Issue of Veterinary Clinics of North America: Small Animal Practice*,

*Equine Clinical Immunology*

*Proceedings of the 9th International Veterinary Immunology Symposium (9th IVIS)*

*Whether you're a new vet tech student or reviewing for the certification exam, Mosby's Comprehensive Review for Veterinary Technicians, 4th Edition is the ideal review tool to help you master critical concepts and pass the VTNE. Now in full color, this edition features a user-friendly outline format that helps break down information visually. Coverage reinforces key concepts in basic and clinical sciences, clinical applications, patient management and nutrition, anesthesia and pharmacology, medical and surgical nursing, and critical care, plus new information on pain management. To ensure the most*

meaningful review, the *Evolve* site features a study mode that includes 500 review questions and an exam mode that offers a computer-based testing environment similar to what you will encounter when taking the VTNE. Comprehensive coverage includes all areas of veterinary technology, such as: basic and clinical sciences; clinical applications; patient management, nursing and nutrition; anesthesia and pharmacology; and professional practices and issues. Comprehensive review exam at the end of the text contains 350 questions that provide you with a solid review of the vet tech curriculum and the information you need to know to pass the VTNE. User-friendly outline format is conducive to classification and grouping of material, which helps you retain the content. Coverage of dogs, cats, large animals, birds, reptiles, and laboratory animals ensures you are prepared for all aspects of the national board examination. Summarized concepts and procedures are highlighted in boxes and tables to support visual learners. Student-friendly chapter format contains a chapter outline, learning outcomes, a glossary, and review questions. Appendix of veterinary technician resources include American, Canadian, and international vet tech associations; registration of technicians; and special internet sites of interest to veterinary technicians. **NEW!** Chapter on pain management and updated and expanded chapter discussions provide the information needed to pass the VTNE **NEW!** Companion *Evolve* website contains a practice exam that simulates the computer-based VTNE testing environment. **NEW!** Full-color format features vivid color photos to support comprehension and recognition of essential concepts including histology, hematology, diagnostic microbiology and mycology, virology, urinalysis, and parasitology.

*Toxoplasma gondii* was first identified more than 100 years ago in the tissues of birds and mammals. Although toxoplasmosis is important all over the world, its approaches to diagnostic strategies considerably differ among countries. Its wide distribution may be attributed to complex transmission patterns and parasite coevolution with multiple hosts. Although *T. gondii* infections of immunocompetent people are generally considered asymptomatic, infections in immunocompromised individuals, such as those with AIDS or organ transplant recipients, can result in severe consequences. This book, composed of a series of articles, including effective diagnosis of laboratory in toxoplasma infections, congenital toxoplasmosis, relationship between toxoplasmosis and public health genomics, prevalence, genetic diversity of toxoplasmosis, and microparticle vaccines against *Toxoplasma gondii* by authors from all over the world, presents a wide open point of view for toxoplasmosis.

Treat the diseases affecting large animals! *Veterinary Medicine, 11th Edition* provides up-to-date information on the diseases of horses, cattle, sheep, goats, and pigs. Comprehensive coverage includes the principles of clinical examination and making a diagnosis, along with specific therapy recommendations. For easier use, this edition has been divided into two volumes and restructured into a logical, anatomically based approach to disease. From internationally known veterinary experts Peter Constable, Kenneth Hinchcliff, Stanley Done, and Walter Grünberg, this book is the definitive, one-stop

reference for farm animal and equine care. Comprehensive coverage includes information essential to any large-animal veterinarian, especially those working with horses, cattle, sheep, goats, or pigs. Coverage of diseases addresses major large-animal diseases of all countries, including foreign animal and emerging diseases. User-friendly format makes it easier to quickly absorb key information. Quick review/synopsis sections make important information on complex diseases easy to find. **NEW!** Convenient, easy-access format is organized by organ systems, and divides the content into two compact volumes with the same authoritative coverage. Nearly 200 new color photographs and line drawings are included in this edition. **NEW** full-color design improves navigation, clarifies subject headings, and includes more boxes, tables, and charts for faster reference. New Diseases Primarily Affecting the Reproductive System chapter is added. Updated and expanded chapter on pharmacotherapy lists therapeutic interventions and offers treatment boxes and principles of antibiotic use. Expanded sections on herd health include biosecurity and infection control, and valuable Strength of Evidence boxes. **NEW** or extensively revised sections include topics such as the Schmallenberg and Bluetongue viral epidemics of ruminants in Europe, Wesselbron disease in cattle, hypokalemia in adult cattle, equine multinodular pulmonary fibrosis, Hendra virus infection, porcine reproductive and respiratory syndrome, torque teno virus, and numerous recently identified congenital and inherited disorders of large animals. Additional content is provided on lameness in cattle and the diseases of cervids.

Both a theoretical text and a practical handbook, *Vaccines for Veterinarians* is the first of its kind to bring the basic science of animal vaccination and the practical details of vaccine use together in one single volume. From the first chapter on the history of vaccination and the triumph of rinderpest eradication to the last chapter on the rapidly emerging field of cancer vaccines, this book offers a truly comprehensive grounding in established and emerging vaccines for both major and minor species. Specific topics include viral vectored vaccines, DNA-plasmid vaccines, RNA vaccines, reverse vaccinology, the complexities of adjuvant use, vaccine failures and adverse events, vaccine production and regulation, robotic vaccination machines, contraceptive and production-enhancing vaccines, and so much more. At a time when resistance to human vaccination is receiving much publicity, this evidence-based book is the ideal counter to ill-informed speculation – serving as a timely reminder that vaccination is essential for the control of infectious diseases in animals. Well-respected and experienced veterinary author, Ian Tizard, provides expert guidance on the topic of vaccinations and immunology in veterinary medicine. Expert Consult site offers an online version of the book, making it easy to search the entire book electronically. The latest information on viral vectored vaccines keeps you up-to-date on the topic as well as the properties and relative advantages of currently used vectors in animal vaccines. Survey of vaccine responses covers the different mechanisms by which the immune system responds to different types of vaccines. Inclusion of the latest vaccine technologies discusses

*the advantages and disadvantages of DNA-plasmid vaccines, RNA vaccines, and more. Coverage of adverse events and hypersensitivities includes the best ways to treat them and report them. Coverage of passive immunization discusses the growing use of therapeutic monoclonal antibodies in veterinary medicine. Coverage of immunotherapy includes recent improvements and new products in both active and passive immunotherapy against animal cancers.*

*Veterinary Medicine - E-BOOK*

*Animal Science Reviews 2012*

Key features: Serves as the detailed, authoritative source of the clinical chemistry of the most commonly used laboratory animals Includes detailed chapters dedicated to descriptions of clinical chemistry-related topics specific to each laboratory species as well as organ/class-specific chapters Presents information regarding evaluation and interpretation of a variety of individual clinical chemistry end points Concludes with detailed chapters dedicated to descriptions of statistical analyses and biomarker development of clinical chemistry-related topics Provides extensive reference lists at the end of each chapter to facilitate further study Extensively updated and expanded since the publication of Walter F. Loeb and Fred W. Quimby's second edition in 1999, the new *The Clinical Chemistry of Laboratory Animals, Third Edition* continues as the most comprehensive reference on in vivo animal studies. By organizing the book into species- and organ/class-specific chapters, this book provides information to enable a conceptual understanding of clinical chemistry across laboratory species as well as information on evaluation and interpretation of clinical chemistry data relevant to specific organ systems. Now sponsored by the American College of Laboratory Animal Medicine (ACLAM), this well-respected resource includes chapters on multiple laboratory species and provides pertinent information on their unique physiological characteristics, methods for sample collection, and preanalytical sources of variation for the particular species. Basic methodology for common procedures for each species is also discussed. New Chapters in the Third Edition Include: The Laboratory Zebrafish and Other Fishes Evaluation of Cardiovascular and Pulmonary Function and Injury Evaluation of Skeletal Muscle Function and Injury Evaluation of Bone Function and Injury Vitamins Development of Biomarkers Statistical Methods *The Clinical Chemistry of Laboratory Animals, Third Edition* is intended as a reference for use by veterinary students, clinical veterinarians, veterinary toxicologists, veterinary clinical pathologists, and laboratory animal veterinarians to aid in study design, collection of samples, and interpretation of

clinical chemistry data for laboratory species.

Proceedings of the 9th International Veterinary Immunology Symposium (9th IVIS) Veterinary  
Immunology Elsevier Health Sciences