WHO/OIE Manual on Echinococcosis in Humans and Animals

Significant advances have been made in animal model development for biological research since the publication of the first edition of this volume, and the ramifications of the FDA’s Animal Efficacy Rule have become better understood in the scientific community. With each chapter completely updated with the latest research findings, Biodefense Research Methodology and Animal Models, Second Edition spans the spectrum of coverage from basic research to advanced development of medical countermeasures. Topics discussed in this volume include: A history of biological agents as weapons, from the use of corpses to contaminate water supplies to modern day anthrax attacks Concepts and strategies involved in biowarfare and bioterrorism The development, validation, and importance of animal models in biodefense research Infectious disease aerobiology Studies involving anthrax, glanders, plague, tularemia, Q fever, alphaviruses, orthopoxviruses, and a new chapter on brucellosis Animal models for viral hemorrhagic fevers Botulinum and Ricin toxins Staphylococcal and streptococcal superantigens As the scientific community works diligently to protect the world’s population from the misuse of infectious organisms and toxins, it is imperative that researchers stay abreast of the latest techniques for biodefense research. Exploring in vivo and in vitro assays, this volume brings researchers up to date on the latest information on bacterial and viral infectious agents and biological toxins considered to pose the greatest threats to public safety. In addition, the contributors take a step toward minimizing the use of animals in further experiments by presenting
documented findings that can be built upon.

**Confronting Emerging Zoonoses**

First published in 1958, Diseases of Swine, Tenth Edition is a fully revised and updated version of this classic reference. Now published in association with the American Association of Swine Veterinarians, the Tenth Edition adds new knowledge throughout in an organized format to provide more intuitive access to information. With chapters written by more than 150 of the foremost experts in the field, Diseases of Swine remains the premier source of comprehensive information on swine production, health, and management for swine health specialists of all disciplines and at any level of expertise, including veterinarians, researchers, and students. Featuring a new content organization designed for improved navigability, the Tenth Edition adds chapters on the cardiovascular system, diagnostic tests and test performance, food safety and zoonotic diseases, show and pet pigs, and the most current information on both long-recognized and emerging pathogens. Diseases of Swine, Tenth Edition is an indispensable resource for anyone interested in swine health.

**New Insight into Brucella Infection and Foodborne Diseases**

Brucellosis, also known as undulant fever, Mediterranean fever, or Malta fever, is an important human disease in many parts of the world. It is a zoonosis and the infection is almost invariably transmitted to people by direct or indirect contact with infected animals or their products. These Guidelines are designed as a concise, yet comprehensive, statement on brucellosis for public health, veterinary and laboratory personnel without access to specialized services. They are also to be a source of accessible and updated information for such others as nurses, midwives and medical assistants who may have to be involved with brucellosis in humans. Emphasis is placed on fundamental measures of environmental and occupational hygiene in the community and in the household as well as on the sequence of actions required to detect and treat patients.

**Penyakit Bakterial pada Ternak Hewan Besar dan Unggas**

The importance of food for human health has been widely recognized. The safety of foods of animal origin is particularly relevant because the large majority of foodborne diseases come from poultry, eggs, meat, milk and dairy products and fish. This textbook covers the longitudinal and integrated approach to food (primarily of animal origin) production, hygiene and safety and how it results in concurrent benefits to animal well being, human health via safe food, protection of the environment and socioeconomic aspects. Topics covered include ways of optimising farming practices, controlling notifiable and zoonotic diseases, hygienic animal slaughter, food preservation and processing, food retailing, food handling in catering and domestic environments, in the context of food safety and public health.

**Economic Analysis of Animal Diseases**

A full description of the clinical aspect and pathology of the disease, with a discussion of current treatment. This updated edition includes five new chapters: endocrinal...
A complete, up-to-date picture of the disorder and will appeal to clinicians, students, researchers and also to veterinarians.

Biodefense Research Methodology and Animal Models, Second Edition

The Middle East and North Africa (MENA) is highly endemic for several neglected tropical diseases (NTDs), including viral, bacterial, protozoan and helminth infections. This new volume covers the most prevalent NTDs found in about 22 MENA countries emphasizing the disease burden, clinical manifestations and control approaches. Each individual chapter deals with one specific disease and is written by a group of experts on that topic.

OIE Bulletin

Infectious Diseases of Wild Mammals and Birds in Europe

The One Health concept recognizes that the health of humans, animals, and their ecosystems are interconnected, and that a coordinated, collaborative, multidisciplinary, and cross-sectoral approach is necessary to fully understand and respond to potential or existing risks that originate at the animal–human–ecosystems interfaces. Thus, the One Health concept represents a holistic vision for addressing some of the complex challenges that threaten human and animal health, food safety, and the environments in which diseases flourish. There are many examples showing how the health of humans is related to the health of animals and the environment. Diseases shared between humans and animals are zoonoses. Some zoonoses have been known for many years, whereas others have emerged suddenly and unexpectedly. Over 70% of all new emerging diseases over the past few decades have been zoonoses that have emerged from wildlife, most often from bats, rodents, or birds. Examples of zoonoses are many and varied, ranging from rabies to bovine tuberculosis, and from Japanese encephalitis to SARS. Clearly, a One Health approach is essential for understanding their ecology, and for outbreak response and the development of control strategies. However, the One Health concept and approach is much broader than zoonoses; it extends to including antimicrobial resistance, food safety, and environmental health and, consequently, impacts on global health security, economic wellbeing, and international trade. It is this breadth of One Health that connects the papers in this Special Issue.

Brucellosis in Black Bengal Goat

Biological engagement programs are a set of projects or activities between partner countries that strengthen global health security to achieve mutually beneficial outcomes. Engagement programs are an effective way to work collaboratively towards a common threat reduction goal, usually with a strong focus on strengthening health systems and making the world a safer place. Cooperative programs are built upon trust and sharing of information and resources to increase the capacity and capabilities of partner countries. Biological engagement programs reduce the threat of infectious disease with a focus on pathogens of security concern, such as those pathogens
identified by the U.S. Government as Biological Select Agent and Toxins. These programs seek to develop technical or scientific relationships between countries to combat infectious diseases both in humans and animals. Through laboratory biorisk management, diagnostics, pathogen detection, biosurveillance and countermeasure development for infectious diseases, deep relationships are fostered between countries. Biological engagement programs are designed to address dual-use issues in pathogen research by promoting responsible science methodologies and cultures. Scientific collaboration is a core mechanism for engagement programs are designed to strengthen global health security, including prevention of avoidable epidemics; detection of threats as early as possible; and rapid and effective outbreak response. This Research Topic discusses Biological Engagement Programs, highlighting the successes and challenges of these cooperative programs. Articles in this topic outlined established engagement programs as well as described what has been learned from historical cooperative engagement programs not focused on infectious diseases. Articles in this topic highlighted selected research, trainings, and programs in Biological Engagement Programs from around the world. This Topic eBook first delves into Policies and Lessons Learned; then describes Initiatives in Biosafety & Biosecurity; the core of this work documents Cooperative Research Results from the field; then lastly the Topic lays out potential Future Directions to the continued success of the World’s cooperative science in reducing the threat of infectious diseases.

Terrestrial Animal Health Code

Brucellosis is an important zoonotic disease. More than half a million new cases from 100 countries are reported annually to the World Health Organization (WHO). The majority of patients are living in developing countries. Brucellosis is a systemic infection with a broad clinical spectrum, ranging from an asymptomatic disease to a severe and fatal illness. Clinical and laboratory features vary widely. The main presentations are acute febrile illness, localized infection, and chronic infection. Laboratory tools for diagnosis of brucellosis include culture, serology, and polymerase chain reaction (PCR). The goal of brucellosis therapy is to control the illness and prevent complications, relapses, and sequelae. Important principles of brucellosis treatment include use of antibiotics with activity in the acidic intracellular environment, use of combination regimens, and prolonged duration of treatment. This book is the result of several months of outstanding efforts by the authors and the revision of the content by experts in the field of brucellosis. This book is a valid resource and is intended for everyone interested in infectious disease to learn the most important aspects of brucellosis.

Makdour’s Brucellosis

An easy-to-read, comprehensive manual to help agronomists and community members protect local cattle, poultry, and crops from incidental or deliberate infestations.

Updates on Brucellosis

Animal health and economics are closely linked. Any decision taken to prevent, control and eliminate an animal disease is based not only on the technical knowledge available about a particular disease but also on the effectiveness and socio-economic aspects
associated with interventions and mitigation measures implemented by governments, producers and all the actors along the livestock value chains. Economic rationale drives decisions in assessing particular investments which are likely to result in a benefit for society or for a specific stakeholder, including livestock farmers and communities. These guidelines prepared by FAO will contribute to a better understanding of the importance of economic analysis when assessing the impact of a particular animal disease in production, trade, market access, food security and livelihoods of rural communities, or when designing or implementing an animal health strategy at national, regional or global level. This framework will provide a good communication tool between animal health technicians, veterinarians and economists in developing countries and will encourage a well informed collaboration between veterinarians, animal health experts, economists and social scientists for livestock and socio-economic development. Economic analysis should be an essential part of animal disease policies and disease management strategies.

Rabies Control in Asia

Infectious Diseases of Wild Mammals and Birds in Europe is a key resource on the diagnosis and treatment of infectious diseases in European wildlife that covers the distinctive nature of diseases as they occur in Europe, including strains, insect vectors, reservoir species, and climate, as well as geographical distribution of the diseases and European regulations for reporting, diagnosis and control. Divided into sections on viral infections, bacterial infections, fungal and yeast infections, and prion infections, this definitive reference provides valuable information on disease classification and properties, causative agents, epidemiology, pathogenesis, and implications for human, domestic and wild animal health. Key features: • Brings together extensive research from many different disciplines into one integrated and highly useful definitive reference. • Zoonotic risks to human health, as well as risks to pets and livestock are highlighted. • Each disease is covered separately with practical information on the animal species in which the disease has been recorded, clinical signs of the disease, diagnostic methods, and recommended treatments and vaccination. • Wildlife vaccination and disease surveillance techniques are described. • Examines factors important in the spread of disease such as changing climate, the movement of animals through trade, and relaxations in the control of wide animal populations.

Foreign Animal Diseases

Includes a description of the Gammaproteobacteria (1203 pages, 222 figures, and 300 tables). This large taxon includes many well known medically and environmentally important groups. Especially notable are the Enterobacteriaceae, Aeromonas, Beggiatoa, Chromatium, Legionella, Nitrococcus, Oceanospirillum, Pseudomonas, Rickettsiella, Vibrio, Xanthomonas and 155 additional genera.

Anthrax in Humans and Animals

Pathogenomics of the Genus Brucella and Beyond
Integrated Food Safety and Veterinary Public Health

Who Estimates of the Global Burden of Foodborne Diseases

The accelerated globalization of the food supply, coupled with toughening government standards, is putting global food production, distribution, and retail industries under a high-intensity spotlight. High-publicity cases about foodborne illnesses over recent years have heightened public awareness of food safety issues, and momentum has been building to find new ways to detect and identify foodborne pathogens and eliminate food-related infections and intoxications. This extensively revised 4e covers how the incidence and impact of foodborne diseases is determined, foodborne intoxications with an introduction noting common features among these diseases and control measures that are applicable before and after the basic foodstuff is harvested. Provides a summary of the

The Merck Veterinary Manual

Bovine Reproduction A complete resource for practical, authoritative information on all aspects of bovine theriogenology The newly revised Second Edition of Bovine Reproduction delivers a comprehensive overview of all major issues in bovine reproduction. Written by leading experts in the subject, the book is an indispensable reference for any veterinarian dealing with bovine fertility. Bovine Reproduction is divided into sections on the bull, the cow, the neonate, and assisted reproduction techniques. New chapters cover new gene manipulation technologies, managing problem donors, lameness, and more. Outdated and redundant information from the First Edition has been removed and replaced by coverage of new diseases, technologies, procedures, techniques, and approaches to fertility problems. A new companion website provides images and tables from the book in PowerPoint format. In addition to more than 675 full-color images, readers will also benefit from: A thorough discussion of the anatomy and physiology of the bull, including the endocrine and exocrine function of bovine testes and the thermoregulation of the testes An exploration of breeding and health management of bulls, including the evaluation of breeding soundness and ultrasound examination of the reproductive tract An examination of the anatomy, physiology, and the breeding and health management of cows, including fetal programming, the reproductive tract microbiome, and a section on obstetrics and reproductive surgery A review of the management of both critical care of the neonate and effective colostrum assessment and provision An introduction to assisted and advanced reproductive technologies A practical and comprehensive reference, Bovine Reproduction is a must-have purchase for bovine practitioners, theriogenologists, animal scientists, veterinary students, and residents with an interest in cattle.

Brucellosis

Complete information on T. gondii infections in animals and man is summarized and analyzed in this thorough reference text. Critical in-formation on its economic impact and its effect on production of animals whose flesh is used for food is featured. The clinical and subclinical infections in all major species of livestock are pre-sented. For each animal species, worldwide serological prevalences are tabulated with T. gondii
antibody titers, followed by an experimental section. Worldwide prevalences of T. gondii infections in mankind is summarized, highlighting epidemiology, symptom diagnosis, treatment, and prevention. Past research is summarized and areas of future investigations are suggested. This book is highly useful to veterinarians, physicians, biologists, and researchers.

**Biological Engagement Programs: Reducing Threats and Strengthening Global Health Security Through Scientific Collaboration**

Defining importance of diseases; FAO/EMPRES: a new emphasis; Early detection; The need for surveillance; What is surveillance?; Surveillance on the ground; Putting a surveillance system in place; Surveillance for what?; Surveillance when and how?; Surveillance in resource-poor countries; Information systems; Setting the goals; Determining needs and outputs; Computerisation; Questionnaire design; Databases; Data quality control; Feedback; The role of GIS; Motivating and training field staff; Awareness creation among decision-makers; Using surveillance as a management tool; FAO involvement in surveillance and information systems development; Examples of questionnaires.

**Sustaining Global Surveillance and Response to Emerging Zoonotic Diseases**

Fourteen brucellosis experts from seven countries discuss the history, epidemiology, microbiology, immunology, diagnosis, treatment, and control of brucellosis in animals and man. Edited by members of the World Health Organization's Expert Committee on Brucellosis, this text is the first comprehensive treatment of the disease since The Nature of Brucellosis by Wesley W. Spink in 1956. Topics reviewed with current references include infection caused by newer species of Brucella, such as B. canis, newer diagnostic techniques, such as radioimmunoassay and ELISA, and newer treatments, such as rifampin and the quinolones. The pathogenesis and pathophysiology of brucellosis is reviewed in depth, correlating the disease in animals with the illness in humans. This volume is extremely useful for clinicians, researchers, and students in medicine, veterinary science, microbiology, immunology, epidemiology, public health, and international health.

**Zoonoses and Communicable Diseases Common to Man and Animals**

It is now accepted that increased antimicrobial resistance (AMR) in bacteria affecting humans and animals in recent decades is primarily influenced by an increase in usage of antimicrobials for a variety of purposes, including therapeutic and non-therapeutic uses in animal production. Antimicrobial resistance is an ancient and naturally occurring phenomenon in bacteria. But the use of antimicrobial drugs – in health care, agriculture or industrial settings – exerts a selection pressure which can favour the survival of resistant strains (or genes) over susceptible ones, leading to a relative increase in resistant bacteria within microbial communities.

**Manual on Livestock Disease Surveillance and Information Systems**

Among the world's poorest countries, Bangladesh is home to one of the richest
treasures-prized Black Bengal goats. Among the Asiatic countries, Bangladesh, a tropical agro-based developing country, possesses the third largest repository of goats, with a population of more than 34 million heads, according to the FAO. This figure represents more than 57% of total livestock in Bangladesh. More than 90% of the goats of the country are of the Black Bengal breed. More than 98% of goats are owned by the small, marginal and landless farmers in the villages. One of the infectious diseases, which are a major constraint for Black Bengal goat productivity, is brucellosis. Brucellosis in Black Bengal goat is caused by Brucella melitensis. Brucellosis is considered by the Food & Agricultural Organization (FAO), the World Health Organization (WHO) & the World Organization for Animal Health (OIE) as the most widespread bacterial zoonosis worldwide. This book illustrates the introduction, diagnosis and seroprevalence of brucellosis in Black Bengal goat. The exciting new study shows a new way of developing the goat industry & prevention & control of brucellosis nationally and at international level.

Drivers, Dynamics and Epidemiology of Antimicrobial Resistance in Animal Production

H1N1 ("swine flu"), SARS, mad cow disease, and HIV/AIDS are a few examples of zoonotic diseases-diseases transmitted between humans and animals. Zoonotic diseases are a growing concern given multiple factors: their often novel and unpredictable nature, their ability to emerge anywhere and spread rapidly around the globe, and their major economic toll on several disparate industries. Infectious disease surveillance systems are used to detect this threat to human and animal health. By systematically collecting data on the occurrence of infectious diseases in humans and animals, investigators can track the spread of disease and provide an early warning to human and animal health officials, nationally and internationally, for follow-up and response. Unfortunately, and for many reasons, current disease surveillance has been ineffective or untimely in alerting officials to emerging zoonotic diseases. Sustaining Global Surveillance and Response to Emerging Zoonotic Diseases assesses some of the disease surveillance systems around the world, and recommends ways to improve early detection and response. The book presents solutions for improved coordination between human and animal health sectors, and among governments and international organizations. Parties seeking to improve the detection and response to zoonotic diseases--including U.S. government and international health policy makers, researchers, epidemiologists, human health clinicians, and veterinarians--can use this book to help curtail the threat zoonotic diseases pose to economies, societies, and health.

Hearing to Review Animal Identification Systems

Up to now, the global burden of illness and deaths caused by foodborne disease has never been quantified. In order to fill this data vacuum, the World Health Organization (WHO) together with its partners launched in 2006 the Initiative to Estimate the Global Burden of Foodborne Diseases. After an initial consultation, WHO in 2007 established a Foodborne Disease Burden Epidemiology Reference Group (FERG) to lead the initiative. Six taskforces were established under FERG, focusing on groups of hazards or aspects of the methodology. These taskforces commissioned systematic reviews and other studies to provide the data from which to calculate the burden estimates. This report is
an outcome of a decade of work by WHO key partners and a number of dedicated individuals. Some additional findings—which cannot be integrated into this report—will be published and user-friendly online tools made available separately. This report and related tools should enable governments and other stakeholders to draw public attention to this often under-estimated problem and mobilize political will and resources to combat foodborne diseases.

Neglected Tropical Diseases - Middle East and North Africa

Techniques for the Brucellosis Laboratory

Pathology of Wildlife and Zoo Animals is a comprehensive resource that covers the pathology of wildlife and zoo species, including a wide scope of animals, disease types and geographic regions. It is the definitive book for students, biologists, scientists, physicians, veterinary clinicians and pathologists working with non-domestic species in a variety of settings. General chapters include information on performing necropsies, proper techniques to meet the specialized needs of forensic cases, laboratory diagnostics, and an introduction into basic principles of comparative clinical pathology. The taxon-based chapters provide information about disease in related groups of animals and include descriptions of gross and histologic lesions, pathogenesis and diagnostics. For each group of animals, notable, unique gross and microscopic anatomical features are provided to further assist the reader in deciding whether differences from the domestic animal paradigm are "normal." Additional online content, which includes text, images, and whole scanned glass slides of selected conditions, expands the published material resulting in a comprehensive approach to the topic. Presents a single resource for performing necropsies on a variety of taxa, including terrestrial and aquatic vertebrates and invertebrates Describes notable, unique gross and microscopic anatomical variations among species/taxa to assist in understanding normal features, in particular those that can be mistaken as being abnormal Provides consistent organization of chapters with descriptions of unique anatomic features, common non-infectious and infectious diseases following brief overviews of the taxonomic group Contains full-color, high quality illustrations of diseases Links to a large online library of scanned slides related to topics in the book that illustrate important histologic findings

Proceedings of the 2nd ISESSAH conference 2018

Foodborne Infections and Intoxications

This manual is one of the outcomes of the 1996 World Food Summit resolutions on the need to achieve global food security. It examines the serious problems of animal diseases and veterinary public health. Based on practical experience worldwide, particularly in developing countries, it looks at ways of reducing poverty and creating sustainable livelihoods among rural populations by improving the health of livestock. Aspects considered include: national animal health policies and delivery systems; training of personnel; the importance of raising public awareness; and the need for global response strategies to support national and local initiatives.
International Animal Health Code

Bergey's Manual® of Systematic Bacteriology

One Health and Zoonoses

This fourth edition of the anthrax guidelines encompasses a systematic review of the extensive new scientific literature and relevant publications up to end 2007 including all the new information that emerged in the 3-4 years after the anthrax letter events. This updated edition provides information on the disease and its importance, its etiology and ecology, and offers guidance on the detection, diagnostic, epidemiology, disinfection and decontamination, treatment and prophylaxis procedures, as well as control and surveillance processes for anthrax in humans and animals. With two rounds of a rigorous peer-review process, it is a relevant source of information for the management of anthrax in humans and animals.

Diseases of Swine


Brucellosis in Humans and Animals

This book provides readers with information on the factors underlying the emergence of infectious diseases originating in animals and spreading to people. The One Health concept recognizes the important links between human, animal, and environmental health and provides an important strategy in epidemic mitigation and prevention. The essential premise of the One Health concept is to break down the silos among the different health professions and promote transdisciplinary collaborations. These concepts are illustrated with in-depth analyses of specific zoonotic agents and with examples of the successes and challenges associated with implementing One Health. The book also highlights some of the challenges societies face in confronting several specific zoonotic diseases. A chapter is included on comparative medicine to demonstrate the broad scope of the One Health concept. Edited by a team including the One Health Initiative pro bono members, the book is dedicated to those studying zoonotic diseases and comparative medicine in both human and veterinary medicine, to those involved in the prevention and control of zoonotic infections and to those in the general public interested in the visionary field of One Health.

Pathology of Wildlife and Zoo Animals

Brucellosis is a major zoonotic disease that may cause a serious illness in humans and animals. Global prevalence of human brucellosis remains significant. More than half a million new brucellosis cases from 100 countries are reported annually to the World
Health Organization (WHO). The majority of these cases are reported in developing countries. In humans, brucellosis (undulant fever, Malta fever) is characterized by an acute bacteremic phase followed by a chronic stage that may extend over many years and may involve many tissues. It is a systemic disease, and many organ systems (nervous system, heart, skeletal system, bone marrow, etc.) may become involved following hematogenous dissemination. Although eradicated in some countries, it remains one of the most economically important zoonosis worldwide as it is responsible for huge economic losses as well as significant human morbidity in endemic areas. Because of the nonspecific clinical manifestations of human brucellosis and the need for prolonged combination therapy with antibiotics that are not routinely prescribed for other infectious diseases, laboratory confirmation of the diagnosis is of paramount importance for adequate patient management. In addition, evidence of brucellosis has serious public health implications because it discloses exposure to a contaminated source (infected animals or their products, unsafe laboratory practices, or a potential biological warfare attack). This book addresses human brucellosis with stress on symptoms including those related to the less recognized disease localizations, risk of exposure, treatment, and prevention. Light is shed on animal brucellosis as it pertains to human exposure. The book also emphasizes on laboratory procedures in culturing and serologic techniques. Epidemiologic surveillance is among this books subjects as well as veterinary control measures.

Bovine Reproduction

Improved Animal Health for Poverty Reduction and Sustainable Livelihoods

Manual on Meat Inspection for Developing Countries

Toxoplasmosis of Animals and Humans, Second Edition

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