

Arenaviruses I The Epidemiology Molecular And Cell Biology Of Arenaviruses Current Topics In Microbiology And Immunology Volume 1

Wildlife and Emerging Zoonotic Diseases: The Biology, Circumstances and Consequences of Cross-Species Transmission
Arenaviruses IXth International Congress of Virology, Glasgow, Scotland, 8-13 August 1993
Oxford Textbook of Medicine
Manual of Security Sensitive Microbes and Toxins
The Molecular Basis of Neuropathology
Tropical Infectious Diseases: Principles, Pathogens and Practice
E-Book
Current Topics in Tropical Emerging Diseases and Travel Medicine
Molecular Basis of Virus Evolution
Manual of Molecular and Clinical Lab Immunology
Viral Infections of Humans
Encyclopedia of Virology
Hemorrhagic Fever Viruses
Ranaviruses
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The Arenaviridae
Viral Infections and Global Change

Wildlife and Emerging Zoonotic Diseases: The Biology, Circumstances and Consequences of Cross-Species Transmission

This 1995 book covers virus evolution, genetics and interaction with host for virologists and evolutionists.

Arenaviruses

Introduces new material that reflects the significant advances and developments in the field of clinical laboratory immunology. • Provides a comprehensive and practical approach to the procedures underlying clinical immunology testing. • Emphasizes molecular techniques used in the field of laboratory immunology. • Updates existing chapters and adds significant new material detailing molecular techniques used in the field. • Presents guidelines for selecting the best procedures for specific situations and discusses alternative procedures. • Covers aspects of immunology related disciplines such as allergy, autoimmune diseases, cancers, and transplantation immunology.

IXth International Congress of Virology, Glasgow, Scotland, 8-13 August 1993

A timely exploration of the impact of global change on the emergence,

reemergence, and control of vector-borne and zoonotic viral infections From massively destructive "superstorms" to rapidly rising sea levels, the world media is abuzz with talk of the threats to civilization posed by global warming. But one hazard that is rarely discussed is the dramatic rise in the number and magnitude of tropical virus outbreaks among human populations. One need only consider recent developments, such as the spread of chikungunya across southern Europe and dengue in Singapore, Brazil, and the southern United States, to appreciate the seriousness of that threat. Representing a major addition to the world literature on the subject, *Viral Infections and Global Change* explores trends of paramount concern globally, regarding the emergence and reemergence of vector-borne and zoonotic viruses. It also provides up-to-date coverage of both the clinical aspects and basic science behind an array of specific emerging and reemerging infections, including everything from West Nile fever and Rift Valley fever to zoonotic hepatitis E and human bunyavirus. Important topics covered include: epidemiology, molecular pathogenesis, and evolutionary mechanisms Host-pathogen interactions in an array of viral infections The impact of climate change on historical viral outbreaks The roles of socioeconomics, human behavior, and animal and human migrations The growing prevalence of drug and pesticide resistance The introduction of microbes and vectors through increased transboundary travel Spillover transmissions and the emergence of viral outbreaks Detecting and responding to threats from bioterrorism and emerging viral infections Predictive modeling for emerging viral infections *Viral Infections and Global Change* is an indispensable resource for research scientists, epidemiologists, and medical and veterinary students working in ecology, environmental management, climatology, neurovirology, virology, and infectious disease.

Oxford Textbook of Medicine

In this volume, a distinguished international group of contributors present the latest molecular, organismal, and epidemiological research on arenaviruses. Their work will broaden both the clinician's and the researcher's knowledge of basic mechanisms of immunological tolerance, viral immunosuppression, the nature of protective immune responses to vaccination, and viral effects on cell functions.

Manual of Security Sensitive Microbes and Toxins

Textbook of Medical Virology presents a critical review of general principles in the field of medical virology. It discusses the description and molecular structures of virus. It addresses the morphology and classifications of viruses. It also demonstrates the principal aspects of virus particle structure. Some of the topics covered in the book are the symmetrical arrangements of viruses; introduction to different families of animal viruses; biochemistry of virus particles; the immunological properties and biological activities of viral gene products; description of enzymatic activities of viruses; and haemagglutination, cell fusion, and haemolysis of viruses. The description and characteristics of viral antigens are covered. The identification and propagation of viruses in tissue and cell cultures are discussed. An in-depth analysis of the principles of virus replication is provided. A study of the morphogenesis of virions is also presented. A chapter is devoted to

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virus-induced changes of cell structures and functions. The book can provide useful information to virologists, microbiologists, students, and researchers.

The Molecular Basis of Neuropathology

Tropical emerging diseases pose a significant risk for the circulation of old and new pathogens in areas previously unknown, also implying the possibility of new morbidities and mortalities and new consequences for naïve populations. Globalization, migration and travel are key factors for tropical diseases, and represent the need for integration of tropical medicine, travel medicine and epidemiology in the understanding of such complex situations. Neglected tropical diseases such as leprosy or Chagas disease, arboviral diseases, HIV, Ebola, and arenaviral infections are just a few examples. This book tries to update significant epidemiological and clinical research in many aspects with a multinational perspective.

Tropical Infectious Diseases: Principles, Pathogens and Practice E-Book

Emerging and re-emerging pathogens pose several challenges to diagnosis, treatment, and public health surveillance, primarily because pathogen identification is a difficult and time-consuming process due to the “novel” nature of the agent. Proper identification requires a wide array of techniques, but the significance of these diagnostics is anticipated to increase with advances in newer molecular and nanobiotechnological interventions and health information technology. Human Emerging and Re-emerging Infections covers the epidemiology, pathogenesis, diagnostics, clinical features, and public health risks posed by new viral and microbial infections. The book includes detailed coverage on the molecular mechanisms of pathogenesis, development of various diagnostic tools, diagnostic assays and their limitations, key research priorities, and new technologies in infection diagnostics. Volume 1 addresses viral and parasitic infections, while volume 2 delves into bacterial and mycotic infections. Human Emerging and Re-emerging Infections is an invaluable resource for researchers in parasitologists, microbiology, Immunology, neurology and virology, as well as clinicians and students interested in understanding the current knowledge and future directions of infectious diseases.

Current Topics in Tropical Emerging Diseases and Travel Medicine

Molecular Basis of Virus Evolution

Manual of Molecular and Clinical Lab Immunology

Molecular Detection of Animal Viral Pathogens presents expert summaries on state-of-the-art diagnostic approaches for major animal viral pathogens, with a particular emphasis on identification and differentiation at the molecular level. Written by

specialists in related research areas, each chapter provides a concise overview of an individual virus

Viral Infections of Humans

Essential Human Virology is written for the undergraduate level with case studies integrated into each chapter. The structure and classification of viruses will be covered, as well as virus transmission and virus replication strategies based upon type of viral nucleic acid. Several chapters will focus on notable and recognizable viruses and the diseases caused by them, including influenza, HIV, hepatitis viruses, poliovirus, herpesviruses, and emerging and dangerous viruses. Additionally, how viruses cause disease, or pathogenesis, will be highlighted during the discussion of each virus family, and a chapter on the immune response to viruses will be included. Further, research laboratory assays and viral diagnosis assays will be discussed, as will vaccines, anti-viral drugs, gene therapy, and the beneficial uses of viruses. By focusing on general virology principles, current and future technologies, familiar human viruses, and the effects of these viruses on humans, this textbook will provide a solid foundation in virology while keeping the interest of undergraduate students. Focuses on the human diseases and cellular pathology that viruses cause Highlights current and cutting-edge technology and associated issues Presents real case studies and current news highlights in each chapter Features dynamic illustrations, chapter assessment questions, key terms, and summary of concepts, as well as an instructor website with lecture slides, test bank, and recommended activities

Encyclopedia of Virology

Hemorrhagic Fever Viruses

A curriculum framework for adult second language learners.

Ranaviruses

Fenner and White's Medical Virology, Fifth Edition provides an integrated view of related sciences, from cell biology, to medical epidemiology and human social behavior. The perspective represented by this book, that of medical virology as an infectious disease science, is meant to provide a starting point, an anchor, for those who must relate the subject to clinical practice, public health practice, scholarly research, and other endeavors. The book presents detailed exposition on the properties of viruses, how viruses replicate, and how viruses cause disease. These chapters are then followed by an overview of the principles of diagnosis, epidemiology, and how virus infections can be controlled. The first section concludes with a discussion on emergence and attempts to predict the next major public health challenges. These form a guide for delving into the specific diseases of interest to the reader as described in Part II. This lucid and concise, yet comprehensive, text is admirably suited to the needs of not only advanced students of science and medicine, but also postgraduate students, teachers, and research workers in all areas of virology. Features updated and expanded coverage

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of pathogenesis and immunity Contains the latest laboratory diagnostic methods Provides insights into clinical features of human viral disease, vaccines, chemotherapy, epidemiology, and control

Principles of Molecular Virology (Standard Edition)

Applied Virology covers the practical applications of the developments in basic virology, not only to virology but to other disciplines as well, and demonstrates the impact of virus diseases on the environment, economy, and the health of man, animals, and plants. The book discusses topics on new virus vaccine technology and chemotherapy; the status of vaccination against viral diseases; and the epidemiology and diagnosis of viral diseases. The text provides information on the strategy used to produce virus vaccines; on antiviral chemical compounds; on simple, rapid, and specific diagnostic techniques; and on epidemiology in relation to the prevention and control of virus diseases. Noninfectious, synthesized peptides used as safe virus vaccines are reviewed with special attention to their immunogenicity, multispecificity, and usefulness in case of epidemics. Virologists will find the book useful.

Fenner and White's Medical Virology

This book is a compilation of some of the most remarkable contributions made by scientists currently working in Latin America to the understanding of virus biology, the pathogenesis of virus-related diseases, virus epidemiology, vaccine trials and antivirals development. In addition to recognizing the many fine virologists working in Latin America, Human Virology in Latin America also discusses both the state-of-the-art research and the current challenges that are being faced in the region, in hopes of inspiring young scientists worldwide to become eminent virologists.

Human Virology in Latin America

Arenaviruses

Completely revised and updated, the new edition of this groundbreaking text integrates basic virology with pathophysiological conditions to examine the connection between virology and human disease. Most virology textbooks focus on the molecular biology involved without adequate reference to physiology. This text focuses on viruses that infect humans, domestic animals and vertebrates and is based on extensive course notes from James Strauss' virology class at the California Institute of Technology taught for over 30 years. Expertly depicting in color the molecular structure and replication of each virus, it provides an excellent overview for students and professionals interested in viruses as agents of human disease. Includes over 30% new material - virtually all of the figures and tables have been redrawn to include the latest information and the text has been extensively rewritten to include the most up-to-date information Includes a new chapter on emerging and reemerging viral diseases such as avian flu, SARS, the spread of West Nile virus across America, and the continuing spread of Nipah virus in Southeast Asia Further reading sections at the end of each chapter make it easy

find key references World maps depicting the current distribution of existing and newly emerging viruses are also incorporated into the text

Microbiology, Including Immunology and Molecular Genetics

Security sensitive microbes (viruses, bacteria, fungi, and parasites) and toxins, which are often referred to as the select agents and toxins, have the capacity to cause serious illness and death in humans, animals, and plants. Throughout history, these microbes and toxins have been exploited in one form or another as biowarfare and bioterror agents that create fear and panic well beyond any actual physical damages they might cause. Manual of Security Sensitive Microbes and Toxins provides comprehensive, state-of-the-art coverage of microbes and toxins of biosecurity concern. The ultimate goal is to increase our awareness of these agents and enhance our preparedness against any future bio-emergencies. The book begins with an introduction containing a brief overview of the historical aspects of security sensitive microbes and toxins. This is followed by a concise summary of the current status in relation to the regulation of security sensitive microbes and toxins and a discussion of future development trends. The book is divided into seven parts: Microbes and Toxins Affecting Humans and Animals: Viruses Microbes and Toxins Affecting Human and Animals: Bacteria Microbes and Toxins Affecting Human and Animals: Fungus and Parasite Microbes and Toxins Affecting Human and Animals: Toxins Microbes Affecting Animals: Viruses Microbes Affecting Animals: Bacteria Microbes Affecting Plants Written by experts in the relevant areas of research, the chapters are authoritative reviews, each one covering a single microbe or toxin with respect to its classification, biology, epidemiology, pathogenesis, identification, diagnosis, treatment, and prevention. The chapters also discuss the limitations of our current knowledge and challenges relating to improved detection and control of the microbe or toxin.

Clinical Virology

Reference source of current virological knowledge. It is also the first to bring together all aspects of the subject for a wide variety of readers. Unique in its use of concise 'mini-review' articles, the material covers biological, molecular, and medical topics concerning viruses in animals, plants, bacteria, and insects. More general articles focus on the effects of viruses on the immune system, the role of viruses in disease, oncology, gene therapy, and evolution, plus a wide range of related topics.

Human Emerging and Re-emerging Infections

Despite being recognized and fought against over countless centuries, human viral pathogens continue to cause major public health problems worldwide—killing millions of people and costing billions of dollars in medical care and lost productivity each year. With contributions from specialists in their respective areas of viral pathogen research, Molecular Detection of Human Viral Pathogens provides a reliable reference on molecular detection and identification of major human viral pathogens. Each chapter briefly reviews the classification, epidemiology, clinical features, and diagnosis of one related viral pathogen or a group of them. The

clinical sample collection and preparation procedures are outlined, and a selection of representative stepwise molecular detection protocols is covered. The chapters conclude with a discussion on further research requirements relating to improved diagnosis. With its judicious selection of streamlined, ready-to-use protocols for major human viral pathogens—including commercial kits—Molecular Detection of Human Viral Pathogens is an indispensable tool for medical, veterinary, and industrial laboratory scientists involved in virus determination.

Essential Human Virology

Emerging and Reemerging Viral Pathogens: Applied Virology Approaches Related to Human, Animal and Environmental Pathogens, Volume Two presents new research information on viruses and their impact on the scientific community. It provides a reference book on certain viruses in humans, animals and vegetal, along with a comprehensive discussion on interspecies interactions. The book then looks at the drug, vaccine and bioinformatical strategies that can be used against these viruses, giving the reader a clear understanding of transmission. The book's end goal is to create awareness that the appearance of newly transmissible pathogens is a global risk that requires shared/adoptable policies for prevention and control. Covers most emerging viral disease in humans, animals and plants Provides the most advanced tools and techniques in molecular virology and the modeling of viruses Creates awareness that the appearance of new transmissible pathogens is a global risk Highlights the need to adopt shared policies for the prevention and control of infectious diseases

Molecular Detection of Animal Viral Pathogens

Viruses

This volume fills an important need for a definitive reference work on clinical virology, including pathogenesis, epidemiology, diagnosis, treatment, and prevention. The many new antiviral drugs available make this book extremely timely. It contains "mini-monographs" covering AIDS, Herpes, Hepatitis and other important clinical conditions in great detail.

Viruses and Human Disease

The essential reference of clinical virology Virology is one of the most dynamic and rapidly changing fields of clinical medicine. For example, sequencing techniques from human specimens have identified numerous new members of several virus families, including new polyomaviruses, orthomyxoviruses, and bunyaviruses. Clinical Virology, Fourth Edition, has been extensively revised and updated to incorporate the latest developments and relevant research. Chapters written by internationally recognized experts cover novel viruses, pathogenesis, epidemiology, diagnosis, treatment, and prevention, organized into two major sections: Section 1 provides information regarding broad topics in virology, including immune responses, vaccinology, laboratory diagnosis, principles of antiviral therapy, and detailed considerations of important organ system

manifestations and syndromes caused by viral infections. Section 2 provides overviews of specific etiologic agents and discusses their biology, epidemiology, pathogenesis of disease causation, clinical manifestations, laboratory diagnosis, and management. Clinical Virology provides the critical information scientists and health care professionals require about all aspects of this rapidly evolving field.

Molecular Virology of Human Pathogenic Viruses

Principles of Molecular Virology, Third Edition provides an essential introduction to modern virology in a clear and concise manner. It is a highly enjoyable and readable text with numerous illustrations that enhance the reader's understanding of important principles. This edition has been updated and revised with new figures and text. New to the Third Edition: Viruses and Apoptosis (Chapter 6) Bacteriophages and Human Disease (Chapter 7) Learning objectives for each chapter Pronunciation section in Glossary and abbreviations section (Appendix 1) Key events in the history of virology (Appendix 3) Addition of colour in text and figures to enhance understanding of key points Also: Self assessment questions at the end of each chapter Classification of Subcellular Infectious agents Approx. 20% new material and completely revised throughout Over 120 figures

Applied Virology

Before 1999, the West Nile Virus was unknown in the Western hemisphere. Since then, however, each summer has shown it moving progressively across the United States starting in New York. Such recurrent and steady movement means that the virus is here to stay. Transmitted by the bite of infected mosquitoes, the disease causes encephalitis, which is inflammation of the brain. Although most cases are relatively mild and include symptoms like a fever and skin rash, those with more severe cases can exhibit convulsions, muscle weakness, and paralysis. Some cases even prove fatal. There is no specific treatment for the virus, with most therapy coming under hospital oversight. In working to prevent the disease, several areas have taken to spraying against mosquitoes and recommended the use of insect repellent. Nonetheless, the virus continues to show itself and has become a regular, but still dangerous, routine of life. This book gives a useful overview of a disease that nobody knew much about a few short years ago, but is now making headlines. Carefully selected abstracts of virus-related literature follow as do accessible author, title, and subject indexes. For the study of the West Nile Virus, this book is a valuable resource.

Emerging and Reemerging Viral Pathogens

This is the first book on ranaviruses. Ranaviruses are double-stranded DNA viruses that cause hemorrhagic disease in amphibians, reptiles, and fish. They have caused mass die-offs of ectothermic vertebrates in wild and captive populations around the globe. There is evidence that this pathogen is emerging and responsible for population declines in certain locations. Considering that amphibians and freshwater turtles are suitable hosts and the most imperiled vertebrate taxa in the world, ranaviruses can have significant impacts on biodiversity and ecosystem function. Additionally, many fish that are raised in

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aquaculture facilities and traded internationally are suitable hosts; thus, the potential economic impact of ranaviruses is significant. Ranaviruses also serve as a model for replication and gene function of large double-stranded DNA viruses. There is an urgent need to assemble the contemporary information on ranaviruses and provide guidance on how to assess their threats in populations. Through the Global Ranavirus Consortium, 24 experts from six countries were organized to write this volume, the first book on ranaviruses. The book begins with a discussion on the global extent of ranaviruses, case histories of infection and disease in ectothermic vertebrates, and current phylogeny. Basic principles of ranavirus ecology and evolution are covered next, with a focus on host-pathogen interactions and how the virus emerges in its environment. There are two chapters that will discuss the molecular biology of ranaviruses, host response to infection, and the genes responsible for immune system evasion. One chapter establishes standards for testing for infection and diagnosing ranaviral disease. The book ends by providing guidance on how to design ranavirus surveillance studies and analyze data to determine risk, and discussing the role of the Global Ranavirus Consortium in organizing research and outreach activities.

Textbook of Medical Virology

Since the subject of arenaviruses was visited by Current Topics in Microbiology and Immunology 14 years ago, enormous advances have been made in this area. The receptor for several arenaviruses, alpha-dystroglycan, was identified, the replication strategy of these viruses was decoded, and application of a reverse genetics system for studying viral gene function and viral biology is well underway. In addition to reviewing these advances, Volume I includes discussion of arenaviral molecular phylogeny, reservoirs in rodents and clinical diseases caused by both new world and old world arenaviruses.

Current Topics in Microbiology and Immunology

Advances in DNA sequencing and phylogenetic inference have created powerful methods to investigate many dangerous human viruses. The Molecular Epidemiology Of Viruses provides a comprehensive introduction to the use of genetic methods in molecular epidemiology and in-depth examples of analyses from many viruses. This book is of interest to researchers in the fields of infectious disease, virology, microbiology, evolutionary biology, epidemiology and molecular biology as well as anyone interested in tracking the spread of disease.

Arenaviruses I

Textbook of Human Virology

This volume offers an overview of the processes of zoonotic viral emergence, the intricacies of host/virus interactions, and the role of biological transitions and modifying factors. The themes introduced here are amplified and explored in detail by the contributing authors, who explore the mechanisms and unique circumstances by which evolution, biology, history, and current context have

contrived to drive the emergence of different zoonotic agents by a series of related events.

West Nile Virus

The knowledge and practice of clinical virology continues to expand. This new fifth edition has thirty-six comprehensive chapters, each of which has been extensively revised or rewritten, with the addition of new colour plates. This updated version takes into account knowledge accumulated in molecular biology with its applications for laboratory diagnosis, immunisation and antiviral chemotherapy. Each chapter highlights the clinical features and epidemiological patterns of infection. Similarly, in response to the global concern of the threat posed by new viruses, a new chapter on Emerging Infections is included. There is also new material on Hospital Acquired Infections, including some advice relating to SARS, that will be of benefit to those dealing with the day-to-day management of patients in hospital.

Molecular Detection of Human Viral Pathogens

Tropical Infectious Diseases: Principles, Pathogens and Practice, by Drs. Richard L. Guerrant, David H. Walker, and Peter F. Weller, delivers the expert, encyclopedic guidance you need to overcome the toughest clinical challenges in diagnosing and treating diseases caused by infectious agents from tropical regions. Sweeping updates to this 3rd edition include vaccines, SARS, hepatitis A-E, Crimean-Congo hemorrhagic fever virus, tick-borne encephalitis and Omsk hemorrhagic fever, human papilloma virus, and mucormycosis. New full-color images throughout allow you to more accurately view the clinical manifestations of each disease and better visualize the life cycles of infectious agents. Definitive, state-of-the-art coverage of pathophysiology as well as clinical management makes this the reference you'll want to consult whenever you are confronted with tropical infections, whether familiar or unfamiliar! Obtain complete and trustworthy advice from hundreds of the leading experts on tropical diseases worldwide, including cutting-edge summaries of pathophysiology and epidemiology as well as clinical management. Get the latest answers on vaccines, SARS, hepatitis A-E, Crimean-Congo hemorrhagic fever virus, tick-borne encephalitis and Omsk hemorrhagic fever, human papilloma virus, mucormycosis, and much more. Implement best practices from all over the world with guidance from almost twice as many international authors - over 100 representing more than 35 countries. Accurately view the clinical manifestations of each disease and visualize the life cycles of infectious agents with new full-color images throughout.

Clinical Virology

Molecular Virology of Human Pathogenic Viruses presents robust coverage of the key principles of molecular virology while emphasizing virus family structure and providing key context points for topical advances in the field. The book is organized in a logical manner to aid in student discoverability and comprehension and is based on the author's more than 20 years of teaching experience. Each chapter will describe the viral life cycle covering the order of classification, virion

and genome structure, viral proteins, life cycle, and the effect on host and an emphasis on virus-host interaction is conveyed throughout the text. Molecular Virology of Human Pathogenic Viruses provides essential information for students and professionals in virology, molecular biology, microbiology, infectious disease, and immunology and contains outstanding features such as study questions and recommended journal articles with perspectives at the end of each chapter to assist students with scientific inquiries and in reading primary literature. Presents viruses within their family structure Contains recommended journal articles with perspectives to put primary literature in context Includes integrated recommended reading references within each chapter Provides access to online ancillary package inclusive of annotated PowerPoint images, instructor's manual, study guide, and test bank

Biodefense

Perspectives in Medical Virology was conceived after many discussions with teachers of postgraduate students, research workers, medical virologists, and students. A number of distinguished practising virologists were then invited to assemble the important information available and to integrate research at the basic level with clinical practice in selected subjects for the new series. The aim of this series is to promote dissemination of information, useful discussion and exchange of ideas and stimulate further interest and research in medical virology. This second volume explores the nature and properties of the arenaviridae family in a way that is hoped will stimulate further experimentation in as yet unexplored areas of arenavirus research.

Principles and Practice of Clinical Virology

The importance attached to rapidly developing our biodefensive capabilities has recently resulted in a significantly increased funding for biodefense research. Accordingly, researchers will respond with an effort equal to the challenge, producing an impressive body of findings. To ensure that this effort continues in the most efficient manne

The Molecular Epidemiology of Human Viruses

This volume presents protocols that analyze and explore hemorrhagic fever viruses (HFV). This book is divided into 5 parts: Part I begins with an overview on predicting viral pandemics and then covers methods for surveillance, diagnosis, and classification of HFV. This includes an antibody capture method using Lassa virus antigens. Part II discusses structural studies and reverse genetics of HFV. The chapters in this part describe envelope glycoprotein membrane fusion studies, arenavirus nucleocapsid protein, and the use of virus-like-particles to study viral egress. Part III explores in vivo models of HFV infections, and contains chapters on murine, guinea pig, and primate models for HFV, and methods to obtain a subset of primary human liver cells that can be cultured long-term. Part IV looks into immune assays and vaccine production for HFV. The chapters in this section cover the attenuated vaccine for Argentine HFV, detecting virus-antibody immune complexes in secondary dengue infections, and DNA vaccination. Part V discusses

host responses to viral hemorrhagic fever, and contains chapters on identifying host restrictions to Junín or Dengue infection, and a cell-culture method to assess coagulation after HFV infection. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Thorough and cutting-edge, Hemorrhagic Fever Viruses: Methods and Protocols is a valuable resource for scientists and researchers who want to bridge the gap between virus recognition in surveillance and understanding host responses to infection.

The Arenaviridae

Viruses: From Understanding to Investigation provides students with a map for lifetime learning by presenting the definition and unique characteristics of viruses, including major topics, such as the virus lifecycle, structure, taxonomy, evolution, history, host-virus interactions and methods to study viruses. In addition, the book assesses the connections between, and among, the aforementioned topics, providing an integrated approach and in-depth understanding of how viruses work. Employs a comparative strategy to emphasize unique structural and molecular characteristics that inform transmission, disease processes, vaccine strategies and host responses Presents a review of host cell and molecular biology and the immune system Features topical areas of research, including genomics in virus discovery, the virome, and beneficial interactions between viruses and their hosts Includes text boxes throughout with experimental approaches used by virologists Covers learning objectives for each chapter, methods and advances, question sets, quizzes and a glossary

Viral Infections and Global Change

An updated volume focusing on human virology and incorporating knowledge that has been gained in recent years, including contemporary information on the molecular biology of viruses.

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