Download File PDF Studies Of Dengue Fever Virus In The Cave Bat Myotus Lucifugus

Thank you definitely much for downloading **Studies Of Dengue Fever Virus In The Cave Bat Myotus Lucifugus**.Most likely you have knowledge that, people have look numerous period for their favorite books in the same way as this Studies Of Dengue Fever Virus In The Cave Bat Myotus Lucifugus, but stop occurring in harmful downloads.

Rather than enjoying a fine PDF afterward a cup of coffee in the afternoon, instead they juggled subsequent to some harmful virus inside their computer. **Studies Of Dengue Fever Virus In The Cave Bat Myotus Lucifugus** is easy to get to in our digital library an online access to it is set as public therefore you can download it instantly. Our digital library saves in merged countries, allowing you to get the most less latency times to download any of our books taking into consideration this one. Merely said, the Studies Of Dengue Fever Virus In The Cave Bat Myotus Lucifugus is universally compatible in the manner of any devices to read.

KEY=FEVER - DALE SOLIS

DENGUE AND DENGUE HEMORRHAGIC FEVER, 2ND EDITION

CABI **Continued geographic expansion of dengue viruses and their mosquito vectors has seen the magnitude and frequency of epidemic dengue/dengue hemorrhagic fever (DF/DHF) increase dramatically. Recent exciting research on dengue has resulted in major advances in our understanding of all aspects of the biology of these viruses, and this updated second edition brings together leading research and clinical scientists to review dengue virus biology, epidemiology, entomology, therapeutics, vaccinology and clinical management.**

STUDIES OF DENGUE FEVER VIRUS BY ELECTRON MICROSCOPY

STUDIES OF DENGUE FEVER VIRUS IN YOUNG DOGS

FRONTIERS IN DENGUE VIRUS RESEARCH

This book brings together a panel of expert dengue virologists to produce a timely review of the rapidly expanding dengue research literature. In addition authors identify the most pressing questions that remain to be answered, thus providing a stimulus for future research. Topics include: evolutionary history, epidemiology, translation and processing of the viral polyprotein, viral replication, the role of the viral untranslated regions, pathogenesis, host response to DENV, development of animal models, DENV-mosquito interactions, dynamics of dengue virus transmission, emergence of DENV from.

DENGUE

GUIDELINES FOR DIAGNOSIS, TREATMENT, PREVENTION AND CONTROL

World Health Organization **This publication is intended to contribute to prevention and control of the morbidity and mortality associated with dengue and to serve as an authoritative reference source for health workers and researchers. These guidelines are not intended to replace national guidelines but to assist in the development of national or regional guidelines. They are expected to remain valid for five years (until 2014), although developments in research could change their validity.--Publisher's description**

DENGUE DISEASE

PART 1 -- Dengue virus infection is an emerging infectious disease with an increasing prevalence of global scale, especially in the tropical countries. Several socioeconomic and environmental factors are responsible for the surging of dengue outbreaks in the 21st century. The easy access to transportation and global urbanization contribute most significantly to the prevalence of dengue infection in the late 20th century. The poor environmental conditions in many countries make the control of mosquito vector a difficult or even impossible task and the dengue outbreaks therefore become an uncontrollable issue in these countries. In central/southern America and southeastern Asia, dengue outbreaks

up to a scale of beyond hundred thousands cases occurred annually. The control measures depend largely on improving the proper management of patients with dengue hemorrhagic fever/ dengue shock syndrome (DHF/DSS). The past decades have witnessed the improvement of mortality of DHF/DSS from around 10% to the current 0.1% in these DHF/DSS cases. However, the development of dengue vaccine turned out to be unsuccessful using the live attenuated viruses due to the incomplete immune response to the tetravalent vaccine and the high morbidity associated with vaccination. The story behind the failure of vaccine development reflects our lack of understanding regarding the complex immunopathogenesis of virus-host interaction in dengue virus infection. In the past years, the scientific field started to understand the importance of basic researches in the development of anti-virus compounds and vaccine development in dengue virus infection. Under the combined efforts of Pediatric Dengue Vaccine Initiative (PDVI) led by Professor Scott Halstead, and the establishment of Novartis Institute for Tropical Diseases in Singapore, a significant improvement in our understanding of the virology, virus-host interaction, and immune response in dengue infection have been achieved. In Taiwan, the dengue research is actively sponsored by National Health Research Institutes starting from 2000. Since then, several progresses such as the epitpoe mapping for the antibody dependent enhancement and the development of autoantibodies against endothelial cells and platelets have been achieved. Significant progresses have also been made in diagnostic technology and molecular epidemiology of dengue infections. The urgent demand in dengue research is to develop a good animal model to study the pathogenesis and also for the development of anti-viral compounds and dengue vaccine. Based on the results obtained from the researches in the past decade, scientific knowledge on basic and clinical fields of dengue infection accumulated and a special book to summarize these knowledge becomes necessary. Under the coordination of Professor Lei HY in the National Cheng Kung University Medical School, scientists in Taiwan and in Asian regions contribute their expertise in each chapter to publish a book to address the specific issues in each field of dengue virus infection. These knowledge will not only provide scientific data in each specific topic but also offer the direction for future studies. Hopefully, we can reach some breakthrough in the coming years to develop strategy for anti-viral compounds and vaccine development. PART 2 -- Dengue fever and Dengue hemorrhagic fever is an important tropical infectious disease, afflicting millions of people every year. It is also alarmingly spreading northward to North America. The virus has been studied for many years and its molecular structure is thoroughly known. It is a flavivirus and consists of 4 serotypes (and genotypes). It is spread through mosquito as a vector. Repeated infections with viruses of different genotypes result in severe hemorrhagic fever. Despite such wealth of knowledge, Dengue fever and Dengue virus remain a scientific and medial challenge. First of all, the mechanism of Dengue hemorrhagic fever remains elusive. Is it a viral load problem? Or, is it due to genetic makeup of certain hemorrhagic virus strains? Or, as suggested by several articles in this book, is it an autoimmune disease? Convincing scientific evidence presented in this book showed a pathogenic role for the auto-antibodies against some viral proteins. Also, cytokine storms may trigger the pathology. This hypothesis was a major contribution from Dengue researchers in Taiwan previously and is elaborated by several chapters in this book. The understanding of Dengue pathogenesis has been hampered by lack of animal models for hemorrhagic fever. An animal model is described in this book. Second, the diagnosis of Dengue fever remains slow and time-consuming. It used to rely mainly on serological tests. This book outlined molecular detection and biochip detection methods, which may facilitate Dengue diagnosis. Third, treatment for Dengue hemorrhagic fever remains mainly symptomatic. There are still no effective antivirals available for Dengue. This book did not address this issue but outlined the strategies for managing Dengue hemorrhagic fever. Finally, the most important issue concerns vaccines. Several clinical trials for Dengue vaccines are currently ongoing. The most challenging issue in Dengue vaccine development is whether the vaccine can produce broad enough immunity to ensure that all the potential virus strains of different genotypes are covered by the antibodies induced. Only the complete coverage can prevent viral superinfection, which may cause hemorrhagic fever. A summary chapter by the editor Dr. Huan-Yao Lei elegantly discusses the challenges and opportunities for Dengue vaccine development. Taiwan has been a stronghold for Dengue research. All the authors in this book are from various institutions in Taiwan. This collection of articles provides excellent glimpses into the quality of research in this regard in this country and also represents the state of arts in Dengue virus research. Besides the topics discussed above, this book also addresses virology of Dengue virus, including virus entry, apoptosis, autophagy, production of interferon and immune responses. It is rare that there is such a concentration of Dengue researchers in a small country like Taiwan. It is even rarer that these scientists together will contribute to a book like this. As a fellow virologist, I am proud to write a preface for this book. PART 3 -- The global prevalence of dengue has grown dramatically and is now endemic in more than 100 countries. There are at least 50 million cases of dengue infection and several hundred thousand cases of dengue hemorrhagic fever (DHF) per year. Dengue disease is an important health problem in tropical or sub-tropical areas and the DHF is the leading cause of hospitalization for children in Southeastern Asia. So far, there is no effective dengue vaccine, although several candidate vaccines are currently being evaluated. Serious dengue disease involves life-threatening complications such as vascular leakage and hemorrhagic diathesis. In endemic areas such as southeastern Asia or Latin America, most of the DHF/DSS are children while some are infants. However, in non-endemic areas like Taiwan, the majority of the DHF/DSS cases are adults and the infected elders tend to have high mortality. Taiwan s dengue outbreaks also have a unique type of transmission: starting from imported cases from abroad, spreading out locally, and ending in the winter. This pattern repeats every year. The dengue disease pattern in Taiwan represents a new type of epidemiology which is different from that in the endemic area of Southeast Asia. In this book, a comprehensive review from dengue epidemiology, diagnosis, clinical, dengue genome, cellular response post dengue virus infection, animal model, dengue-induced autoimmunity, antibody-dependent enhancement,

immunopathogenesis, patient management, to dengue vaccine development is covered. All chapters are contributed by Taiwanese dengue researchers. Based on the Dengue Research Team in Department of Microbiology and Immunology, National Cheng Kung University Medical College, we have established a vigorous research network linking various laboratories in National Taiwan University Medical College, Academia Sinica, Center for Disease Control, and National Defense Medical Center with the financial support for dengue program project by National Health Research Institute. We also collaborate with dengue investigators from Canada, Thailand, and Vietnam. Through intensive communication, research ideas are generated, fine-tuned and executed by members from different laboratories within an interactive and cooperative atmosphere. Using approaches aimed at the patient, virus, animal, cellular, and molecular levels, an intensive study of dengue pathogenesis by this highly-integrated research network is helping to develop new understanding and strategies to cope with dengue disease. In particularly, acute dengue virus infection can induce autoimmunity due to molecular mimicry between dengue NS-1, prM and platelet, endothelial cells. A new autoantibody-associated immunopathogenesis is proposed and offers new insights into the molecular mechanisms underlying DHF/DSS, and will have impact on the future design of safe and protective dengue vaccines.

DENGUE FEVER IN A ONE HEALTH PERSPECTIVE

BoD – Books on Demand **Dengue Fever in a One Health Perspective underlines important aspects of dengue virus, the most prevalent and life-threatening arbovirus in the world. Over three sections, chapters cover such topics as biological and environmental aspects, physiopathology, molecular biology, diagnosis, and control strategies. The first section provides knowledge on basic aspects of dengue virus biology and its emergence and re-emergence associated to environmental changes. The second section includes two chapters on dengue immunopathology, a drawback in disease control and vaccine development. Finally, the third section examines molecular biology tools employed in dengue virus immunopathogenesis studies, diagnosis, drug design, and in the use of vectors as sentinels in surveillance and vector biology studies.**

DENGUE VIRUS

Springer Science & Business Media **Scientific research on dengue has a long and rich history. The literature has been touched by famous names in medicine- Benjamin Rush, Walter Reed, and Albert Sabin, to name a very few- and has been fertile ground for medical historians . The advances made in those early investigations are all the more remarkable for the limited tools available at the time. The demonstration of a viral etiology for dengue fever, the recognition of mosquitoes as the vector for transmission to humans, and the existence of multiple viral variants (serotypes) with only partial cross-protection were all accomplished prior to the ability to culture and characterize the etiologic agent. Research on dengue in this period was typically driven by circumstances. Epidemics of dengue created public health crises, although these were relatively short-lived in any one location, as the population of susceptible individuals quickly shrank. Military considerations became as a major driving force for research. With the introduction of large numbers of non-immune individuals into endemic areas, dengue could cripple military readiness, taking more soldiers out of action than hostile fire. Dengue and dengue hemorrhagic fever, which assumed pandemic proportions during the latter half of the last century, have shown no indication of slowing their growth during this first decade of the twenty-first century. Challenges remain in understanding the basic mechanisms of viral replication and disease pathogenesis, in clinical management of patients, and in control of dengue viral transmission. Nevertheless, new tools and insights have led to major recent scientific advances. As the first candidate vaccines enter large-scale efficacy trials, there is reason to hope that we may soon "turn the corner" on this disease.**

DENGUE FEVER

A RESILIENT THREAT IN THE FACE OF INNOVATION

BoD – Books on Demand **For over 70 years, dengue fever has challenged health systems in every region of the World. It has evolved from a benign febrile illness from the tropics to a major concern in urban settlements, overwhelming health infrastructure with large outbreaks, as it continues to teach us important lessons with its complexities. This book intends to review the latest updates on dengue fever, the tools available for its study and control, and promising technologies currently in the pipeline. With this work, the editors wish to provide students with an updated reference text on the basics of this disease as well as researchers and academics, with a useful document to understand the current outlook and the perspectives for the future.**

STUDIES OF DENGUE FEVER VIRUS IN THE CAVE BAT (MYOTUS LUCIFUGUS).

CURRENT TOPICS IN VECTOR RESEARCH

VOLUME 3

Springer Science & Business Media **Vector transmission of pathogens affecting human, animal, and plant health continues to plague mankind both in industrialized and Third World coun tries. The diseases caused by these pathogens cost billions of dollars an nually in medical expenses and lost productivity. Some cause widespread of food-and fiber-producing plants and animals, whereas others destruction present direct and immediate threats to human life and further development in Third World countries. During the past 15 years or so, we have witnessed an explosive increase in interest in how vectors acquire, carry, and subsequently inoculate dis ease agents to human, animal, and plant hosts. This interest transcends the boundaries of anyone discipline and involves researchers from such varied fields as human and veterinary medicine, entomology, plant pa thology, virology, physiology, microbiology, parasitology, biochemistry, molecular biology, genetic engineering, ultrastructure, biophysics, bio systematics, biogeography, ecology, behavioral sciences, and others. Ac companying and perhaps generating this renewed interest is the realization that fundamental knowledge of pathogen-vector-host interrelationships is a first and necessary step in our quest for efficient, safe methods of disease control.**

DENGUE VIRUSES

Springer Science & Business Media **2. Virological Findings. 90 3. Immunity. . . . . 90 C. Secondary Dengue: Dengue Hemorrhagic Fever and the Shock Syndrome 92 1. General Remarks. . . . . 92 2. Clinical Course and Clinical Laboratory Findings 93 3. Virological and Serological Findings. . . 95 4. Immunopathology of Secondary Dengue. 98 XI. Immunization. . . . . 104 A. Anamnestic Immune Responses in Sequential Infections With Dengue and Other Group B Togaviruses . . . . . 104 1. Results With Members of the Dengue Subgroup 104 2. Results With Dengue and Other Flaviviruses. 107 B. Dengue Vaccines for Use in Man 108 XII. Opportunities for the Future 113 Acknowledgments. 114 References. . . . . 114 I. Introduction Dengue fever is a mosquito-transmitted disease of man which has afflicted untold millions of people over the past two centuries. It is caused by viruses classified as a subgroup of the group B togaviruses. Along with other members of that group as well as group A, the dengue viruses have been investigated intensively during recent years. Certain unique aspects of their structure, composition, antigenicity, replication, and antigenic relationships have established the togavirus family as quite distinct from other families of enveloped RNA viruses (see recent review of PFEFFERKORN and SHAPIRO, 1974). The basic studies leading to this conclusion have coincided with epidemiological field investigations which have resulted in a continuing increase in the number of viruses now designated as group A or B togaviruses. This, in turn, has led to a growing appreciation of their immense importance as actual or potential pathogens of man and beast.**

PROTECTIVE IMMUNE RESPONSE TO DENGUE VIRUS INFECTION AND VACCINES: PERSPECTIVES FROM THE FIELD TO THE BENCH

Frontiers Media SA **Dengue is the most important mosquito-transmitted viral disease in humans. Half of the world population is at risk of infection, mostly in tropical and sub-tropical areas. The World Health Organization (WHO) estimates that 50 to 100 million infections occur yearly, with 50,000 to 100,000 deaths related to dengue, mainly in children. Recent estimates show higher numbers, up to three times more, with 390 million estimated dengue infections per year, among which 96 million apparent infections (Bhatt et al. 2013). Initially localized to South-East Asia, dengue virus (DENV) started its spread in Latin America in the 80’s. Little is known about DENV spread in Africa, but multiple seroprevalence surveys over several years are now clearly showing endemic areas in East and West Africa (Brady et al. 2013). Finally, due to global warming and intense traveling there is a risk of global spread towards more temperate regions, and both US Key islands (FL) and southern Europe recently faced DENV outbreaks. There are currently no specific treatments or vaccines available. Even though several dengue vaccines are in the pipeline, clear correlates of protection are still lacking. The recent failure of the live-attenuated Sanofi vaccine Phase 2b trial (Sabchareon et al. 2013) and the lack of correlation between clinical protection and in vitro neutralization assays, clearly underlines the necessity to better understand the role of the different components of the immune system in protection against dengue virus infection and the requirement for the development of additional and/or improved predictive assays. The aim of this research topic is to provide novel data, opinions and literature reviews on the best immune correlates of protection and recent advances in the immune response to DENV infection that can allow rapid progress of dengue vaccines. Authors can choose to submit original research papers, reviews or opinions on pre-clinical or clinical observations that will help unify the field, with perspectives from epidemiology, virology, immunology and vaccine developers. This research topic will discuss different aspects of the protective immune response to DENV that can influence vaccine development. It will include a review of epidemiological data generated in the field, which**

will address spatio-temporal diversity of DENV epidemics, the importance of cross-reactive protection and of the time-interval between infections as a predictor of disease. It will further include a review of the role of both the innate and adaptive immunity in DENV infection control, and discuss the usefulness of new improved animal models in dissecting the role of each immunological compartment, which will help define new correlate of immune protection. New data concerning the DENV structure and anti-dengue antibody structure will address the necessity of improved neutralization assays. The ultimate test to prove vaccine efficacy and study immune correlates of protection in humans before large trials will open up the discussion on human DENV challenges using controlled attenuated viral strains. Finally, the role of vaccines, administered in flavi-immune populations, in the modification of future epidemics will also be approached and will include novel studies on mosquitoes infection thresholds.

RESEARCH ADVANCES IN DENGUE VIRUS

Frontiers Media SA

THE EVOLUTION OF PREVENTIVE MEDICINE IN THE UNITED STATES ARMY, 1607-1939

RAPID DIAGNOSIS OF DENGUE OUTBREAKS IN RESOURCE LIMITED FACILITIES

Anchor Academic Publishing **Dengue is a tropical, mosquito borne flavivirus infection and a leading public health problem in India. Four serotypes DEN1-4 cause high morbidity and mortality. Dengue is a spherical, lipid enveloped, positive stranded RNA virus having a 10200 Kb RNA genome coding for three structural (capsid C, premembrane PrM, and envelope E) and seven nonstructural proteins. Early, sensitive and specific diagnosis is paramount for patient management, prevention of complications, etiologic investigation and disease control. Early diagnosis is achieved by NS1 antigen detection, nucleic acid amplification and virus isolation. Diagnosis after five days is conferred by IgM/IgG based serological techniques such as ELISA, hemagglutination inhibition, complement fixation and neutralization test. The aim of this study is to compare serological and nucleic acid based methods for early diagnosis of dengue and differentiation of serotypes. For this, Dengue was diagnosed using NS1 antigen, IgM/IgG LF-ICT, IgM µ capture ELISA, RT-PCR and tests were compared. M-PCR was done to identify serotypes.**

DENGUE FEVER: NEW INSIGHTS FOR THE HEALTHCARE PROFESSIONAL: 2013 EDITION

SCHOLARLYBRIEF

ScholarlyEditions **Dengue Fever: New Insights for the Healthcare Professional: 2013 Edition is a ScholarlyBrief™ that delivers timely, authoritative, comprehensive, and specialized information about Diagnosis and Screening in a concise format. The editors have built Dengue Fever: New Insights for the Healthcare Professional: 2013 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Diagnosis and Screening in this book to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Dengue Fever: New Insights for the Healthcare Professional: 2013 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/.**

CDC YELLOW BOOK 2018: HEALTH INFORMATION FOR INTERNATIONAL TRAVEL

Oxford University Press **THE ESSENTIAL WORK IN TRAVEL MEDICINE -- NOW COMPLETELY UPDATED FOR 2018 As unprecedented numbers of travelers cross international borders each day, the need for up-to-date, practical information about the health challenges posed by travel has never been greater. For both international travelers and the health professionals who care for them, the CDC Yellow Book 2018: Health Information for International Travel is the definitive guide to staying safe and healthy anywhere in the world. The fully revised and updated 2018 edition codifies the U.S. government's most current health guidelines and information for international travelers, including pretravel vaccine recommendations, destination-specific health advice, and easy-to-reference maps, tables, and charts. The 2018 Yellow Book also addresses the needs of specific types of travelers, with dedicated sections on: - Precautions for pregnant travelers, immunocompromised travelers, and travelers with disabilities - Special considerations for newly arrived adoptees, immigrants, and refugees - Practical tips for last-minute or resource-limited travelers - Advice for air crews, humanitarian workers, missionaries, and others who provide care and support overseas Authored by a team of the world's most esteemed travel medicine experts, the Yellow Book is an essential resource for travelers -- and the clinicians overseeing their care -- at home**

and abroad.

FLAVIVIRUS—ADVANCES IN RESEARCH AND TREATMENT: 2013 EDITION

SCHOLARLYBRIEF

ScholarlyEditions **Flavivirus—Advances in Research and Treatment: 2013 Edition is a ScholarlyBrief™ that delivers timely, authoritative, comprehensive, and specialized information about ZZZAdditional Research in a concise format. The editors have built Flavivirus—Advances in Research and Treatment: 2013 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about ZZZAdditional Research in this book to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Flavivirus—Advances in Research and Treatment: 2013 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/.**

FLAVIVIRUS—ADVANCES IN RESEARCH AND TREATMENT: 2012 EDITION

ScholarlyEditions **Flavivirus—Advances in Research and Treatment: 2012 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Flavivirus. The editors have built Flavivirus—Advances in Research and Treatment: 2012 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Flavivirus 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 Flavivirus—Advances in Research and Treatment: 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/.**

NEW TREATMENT STRATEGIES FOR DENGUE AND OTHER FLAVIVIRAL DISEASES

John Wiley & Sons **Dengue virus is a member of the Flaviviridae family, which includes viruses associated with human diseases such as yellow fever, Japanese encephalitis and hepatitis C. Dengue fever is transmitted by mosquitoes, principally Aedes aegypti. There are four serotypes of dengue virus, of which DENV-2 has been the most prevalent in many recent epidemics. Following primary infection, lifelong immunity develops, preventing repeated assault by the same serotype. However, the non-neutralizing antibodies from a previous infection or maternally acquired antibodies are thought to form complexes with a different serotype during a subsequent infection and cause dengue haemorrhagic fever/dengue shock syndrome, which can be fatal. There is no treatment or vaccine available today that can combat this emerging and uncontrolled disease. This book features contributions from the world's leading researchers working on dengue and related flaviviruses who examine the current state of the art in the molecular biology of the dengue virus. Particular emphasis is placed on the structure and function of the virus and the targeting of virus proteins by potential antiviral agents. The pathogenesis of dengue and dengue haemorrhagic fever are discussed in detail, especially the target cells and the specific receptors on these cells, thereby developing a clear overview of host and viral factors that contribute to dengue haemorrhagic fever. Finally, the book reviews the therapeutic options, paying particular attention to ways in which vector, host and environment can play a critical role in the spread of this disease. With dengue fever and other emerging viral diseases becoming increasingly prevalent around the world, this book provides valuable insight into the virus that causes this disease and potential ways to manage it. It is essential reading for all those working in tropical diseases, public health and virology. Praise from the reviews: "The book provides an excellent summary of dengue/flavivirus research and is important for individuals and institutions interested in emerging infectious diseases." MICROBIOLOGY TODAY**

DENGUE VIRUS DISEASE

FROM ORIGIN TO OUTBREAK

Academic Press **Dengue Virus Disease: From Origin to Outbreak provides a detailed accounting of one of the world's fastest growing infections. According to the World Health Organization, Dengue virus incidence has increased 30-fold over the past 50 years, with up to 50 to 100 million infections occurring annually in over 100 endemic countries. This estimate puts nearly half the world's population at risk. This book reviews the history, clinical and diagnostic aspects of dengue virus, also presenting our current knowledge on the**

pathophysiology of severe dengue and addressing the importance of dengue virus infections in those traveling to parts of the world where it is endemic. Covers every important aspect of Dengue virus disease, from biological, to its social and economic impacts Highlights the unique aspects of Dengue virus infection and the evolving nature of our understanding of the virus Provides a complete description of Dengue virus disease, with details on more recent outbreaks, clinical features, first hand experiences, treatment modalities, and recent novel treatment regimens Gives insights into the detailed psychological impact the disease has caused in outbreak regions

STUDIES UPON THE ETIOLOGY OF DENGUE FEVER

CULTIVATION AND NATURE OF THE VIRUS

DENGUE AND ZIKA: CONTROL AND ANTIVIRAL TREATMENT STRATEGIES

Springer **This contributed volume contains 25 chapters from leading international scientists working on dengue and Zika viruses, who came together in Praia do Tofo in Mozambique to discuss the latest developments in the fields of epidemiology, pathogenesis, structural virology, immunology, antiviral drug discovery and development, vaccine efficacy, and mosquito control programs. The meeting venue offered an opportunity to discuss current research on these flaviviruses in an idyllic setting, and also to develop first-hand appreciation of the issues in infectious diseases facing developing countries and of the research gaps in Africa. For readers, who should include basic and clinical researchers in the field and public health professionals, the chapters are organized to provide a comprehensive overview of the various topics in current dengue and Zika virus research. A unique feature of the proceedings of this meeting is the inclusion of the discussions that took place following presentations. These have been transcribed and appended to the end of the relevant chapters, and they form the “salt in the soup” of this book.**

CURRENT TOPICS IN CHIKUNGUNYA

BoD – Books on Demand **Chikungunya, an arbovirus, is a major global threat affecting multiple areas of the world, even Europe, but recently (2014 - 2015) with large epidemics in Latin America, causing an important acute and chronic morbidity with a low, but present, mortality. This book tries to update the significant epidemiological and clinical research in many aspects with a multinational perspective. This book has been organized in two major sections: (I) ''Clinical and Epidemiological Aspects'' and (II) ''Entomology.'' Section I includes topics covering experiences and studies in different countries, including the infection during pregnancy and children, imported cases, ocular manifestations, coinfections, and therapeutics. Section II includes topics on entomological aspects, related to vector control, and new options for biological control of Aedes aegypti.**

THE FLAVIVIRUSES: DETECTION, DIAGNOSIS AND VACCINE DEVELOPMENT

Elsevier **Over 50% of known flaviviruses have been associated with human disease. The Flavivirus genus constitutes some of the most serious human pathogens including Japanese encephalitis, dengue and yellow fever. Flaviviruses are known for their complex life cycles and epidemic spread, and are considered a globally-emergent viral threat. Detection, Diagnosis and Vaccine Development, the third volume of The Flaviviruses details the current status of technologies for detection and differentiation of these viruses, their use in surveillance and outbreak investigation, and also reviews the latest clinical research. Comprehensive approach to the scientific disciplines needed to unravle the complexities of virus-host interactions Descibes the technologies that have contributed to our current knowledge about the Flaviviruses Identifies the major problems faced in understanding the virus-host interactins that result in disease An exhaustive compendium of current and past knowledge on the Flavivirus family**

CURRENT TOPICS IN TROPICAL EMERGING DISEASES AND TRAVEL MEDICINE

BoD – Books on Demand **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.**

NEGLECTED TROPICAL DISEASES - SOUTH ASIA

Springer **This book covers all aspects of Neglected Tropical Diseases in the region of South Asia. NTDs constitute a significant part of the total disease burden in this geographic area, including soil borne helminth infections, vector borne viral infections, protozoan infections and a few bacterial infections. The current volume covers the most common neglected viral, bacterial and protozoan infections. On top of that, the last part of the volume is dedicated to the management of neglected tropical diseases.**

SMALL BITE, BIG THREAT

DEADLY INFECTIONS TRANSMITTED BY AEDES MOSQUITOES

CRC Press **Mosquitoes are significant vectors that transmit various pathogens to humans and other mammals. Mosquitoes seem to be omnipresent and easily breed in climates favourable to them. Life cycle of the Aedes species of mosquitoes is similar to others of its genera. This book focuses on Aedes mosquitoes that are responsible for many dreadful diseases and discusses every stage in the life cycle of the species. The contributing authors of this book have extensive teaching and research experience in the field of detection of viruses of Dengue, Chikungunya, yellow fever and West Nile. One of the contributing authors, Prof. Vinod Joshi, has researched on Dengue viruses for 17 years. The book provides a detailed account of the distribution of Aedes mosquitoes, their role as a vector and their control through various methods. Currently, there has been increased interest among researchers to mitigate the threat caused by Aedes mosquitoes and substantial investigation is being done on the mosquito's history, in characterizing present circumstances and to collaborate future efforts.**

VIRAL HEMORRHAGIC FEVERS—ADVANCES IN RESEARCH AND TREATMENT: 2013 EDITION

SCHOLARLYPAPER

ScholarlyEditions **Viral Hemorrhagic Fevers—Advances in Research and Treatment: 2013 Edition is a ScholarlyPaper™ that delivers timely, authoritative, and intensively focused information about ZZZAdditional Research in a compact format. The editors have built Viral Hemorrhagic Fevers—Advances in Research and Treatment: 2013 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about ZZZAdditional Research in this book to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Viral Hemorrhagic Fevers—Advances in Research and Treatment: 2013 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/.**

STRUCTURAL AND BIOPHYSICAL STUDIES OF ANTIBODY - DENGUE VIRUS INTERACTION

Dengue virus (DENV), a member of Flaviviridae family, is a mosquito-borne human viral pathogen, causing every year more than 50 million infections, some of which can lead to dengue haemorrhagic fever (DHF) and dengue shock syndrome (DSS). It co-circulates as four serotypes. Humoral immunity plays a significant role in controlling flavivirus dissemination within an infected host. However, antibodies raised against DENV may be both protective and pathogenic, due to the phenomenon of antibody-dependent enhancement (ADE), which leads to a dramatic increase in the infection of cells bearing Fcy receptors. As such ADE is a major obstacle in the development of a successful vaccine against DENV. The main challenge in the field is to understand the mechanisms of neutralization and enhancement of DENV infection at the molecular level and identify antibody epitopes that minimize ADE. DENV envelope (E) and precursor membrane (prM) proteins are the main targets of antibodies. Each monomer of E consists of three domains (EI, EII and EIII), of which EIII contains critical neutralization determinants. PrM acts as a chaperone for the correct folding of E and undergoes proteolytic cleavage to soluble pr peptide and membrane-associated M during virus maturation. This thesis reports the functional and structural characterization of four types of antibodies in complexes with recombinant antigens, E and prM. The crystal structures of murine antibodies 3H5 and 2C8 complexed with EIII indicate a possible explanation of ADE mediated by strongly neutralizing antibodies specific to EIII. The proposed structural rearrangement of E induced by 3H5 binding, results in neutralization at a significantly lower occupancy of the antibody on the virus than that observed with 2C8 which can bind without distorting the DENV envelope. The occupancy required for neutralization is directly correlated with ADE as low density of antibodies bound at neutralization may fail to reach a threshold to drive efficient Fc-receptor-dependent uptake. The crystal structures of the fully cross-reactive murine antibody

2H12 in complex with EIII from DENV serotypes 1, 3 and 4 revealed that it recognizes a highly conserved epitope, which has limited accessibility on the mature virus and the ability of the antibody to bind the virus is serotype- dependent. 2H12 displayed high affinity to isolated antigen (EIII) yet the position of the epitope in the mature virus hindered efficient neutralization. The structural analyses of human mAbs recognizing EI-EII prove to be challenging. Whilst the Fab fragment of 30E2 formed a stable complex with recombinant E, and yielded crystals, other Fabs did not bind to recombinant E in a monomeric form indicating that they target epitopes on oligomeric forms of E present only in the virions. DENV cross-reactive human antibodies against prM do not neutralize the infection with DENV yet greatly promote ADE. They bind immature and partially mature yet infectious particles and recognize a discontinuous epitope spanning across pr peptide and M. Initial crystallographic studies of Fab- prM complexes provide a platform for further experiments aimed at the elucidation of the specificity of prM-specific antibodies.

VIRAL HEMORRHAGIC FEVERS: ADVANCES IN RESEARCH AND TREATMENT: 2011 EDITION

SCHOLARLYBRIEF

ScholarlyEditions **Viral Hemorrhagic Fevers: Advances in Research and Treatment: 2011 Edition is a ScholarlyBrief™ that delivers timely, authoritative, comprehensive, and specialized information about Viral Hemorrhagic Fevers in a concise format. The editors have built Viral Hemorrhagic Fevers: Advances in Research and Treatment: 2011 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Viral Hemorrhagic Fevers 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 Viral Hemorrhagic Fevers: Advances in Research and Treatment: 2011 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/.**

DENGUE FEVER ON THE TEXAS-MEXICO BORDER

USING INTERDISCIPLINARY SCIENCE TO IMPROVE PUBLIC HEALTH

DENGUE

Imperial College Press

DENGUE

METHODS AND PROTOCOLS

Humana Press **Infection by flaviviruses such as dengue virus serotypes (DENV 1-4), Japanese encephalitis virus (JEV), tick-borne encephalitis virus (TBE), yellow fever virus (YFV) and West Nile virus (WNV) impact millions of lives and cause tens of thousands of mortalities each year. Dengue is a global public health emergency especially since there is no preventative vaccine or antiviral treatment for dengue disease. Dengue: Methods and Protocols offers the increasing number of dengue researchers a one-stop protocol book with techniques compiled from the leading laboratories working on dengue. Chapters cover topics such as dengue virus isolation from clinical samples, quantification of human antibodies against the virus, assays to quantify the virus particles, the widely used mouse model to study dengue pathogenesis, vaccine and antiviral efficacies. Written in the 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 protocols and notes on troubleshooting and avoiding known pitfalls. Authoritative and easily accessible, Dengue: Methods and Protocols seeks to serve both professionals and novices with its well-honed methodologies on dengue research.**

VIRAL HEMORRHAGIC FEVERS—ADVANCES IN RESEARCH AND TREATMENT: 2012 EDITION

SCHOLARLYBRIEF

ScholarlyEditions **Viral Hemorrhagic Fevers—Advances in Research and Treatment: 2012 Edition is a ScholarlyBrief™ that delivers timely, authoritative, comprehensive, and specialized information about Viral Hemorrhagic Fevers in a concise format. The editors have built Viral Hemorrhagic Fevers—Advances in Research and Treatment: 2012 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Viral Hemorrhagic Fevers 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 Viral Hemorrhagic Fevers—Advances in Research and Treatment: 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/.**

FLAVIVIRUS INFECTIONS—ADVANCES IN RESEARCH AND TREATMENT: 2012 EDITION

SCHOLARLYBRIEF

ScholarlyEditions **Flavivirus Infections—Advances in Research and Treatment: 2012 Edition is a ScholarlyBrief™ that delivers timely, authoritative, comprehensive, and specialized information about Flavivirus Infections in a concise format. The editors have built Flavivirus Infections—Advances in Research and Treatment: 2012 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Flavivirus Infections 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 Flavivirus Infections—Advances in Research and Treatment: 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/.**

INFECTIOUS DISEASES IN AN AGE OF CHANGE

THE IMPACT OF HUMAN ECOLOGY AND BEHAVIOR ON DISEASE TRANSMISSION

National Academies Press **Twenty-first century progress against infectious diseases is threatened by urbanization, population growth, war refugees, changing sexual standards, and a host of other factors that open doors to the transmission of deadly pathogens. Infectious Diseases in an Age of Change reports on major infectious diseases that are on the rise today because of changing conditions and identifies urgently needed public health measures. This volume looks at the range of factors that shape the epidemiology of infectious diseases--from government policies to economic trends to family practices. Describing clinical characteristics, transmission, and other aspects, the book addresses major infectious threats--sexually transmitted diseases, Lyme disease, human cytomegalovirus, diarrheal diseases, dengue fever, hepatitis viruses, HIV, and malaria. The authors also look at the rising threat of drug-resistant strains of tuberculosis, rapid exhaustion of the weapons to fight bacterial infections, and prospects for vaccinations and eradication of pathogens. Infectious Diseases in an Age of Change will be important to public health policymakers, administrators, and providers as well as epidemiologists and researchers.**

BIBLIOGRAPHY ON DENGUE AND YELLOW FEVERS

NEW TREATMENT STRATEGIES FOR DENGUE AND OTHER FLAVIVIRAL DISEASES

Wiley **Dengue virus is a member of the Flaviviridae family, which includes viruses associated with human diseases such as yellow fever, Japanese encephalitis and hepatitis C. Dengue fever is transmitted by mosquitoes, principally Aedes aegypti. There are four serotypes of dengue virus, of which DENV-2 has been the most prevalent in many recent epidemics. Following primary infection, lifelong immunity develops, preventing repeated assault by the same serotype. However, the non-neutralizing antibodies from a previous infection or maternally acquired antibodies are thought to form complexes with a different serotype during a subsequent infection and cause dengue haemorrhagic fever/dengue shock syndrome, which can be fatal. There is no treatment or vaccine available today that can combat this emerging and uncontrolled disease. This book features contributions from the world's leading researchers working on dengue and related flaviviruses who examine the current state of the art in the molecular biology of the dengue virus. Particular**

emphasis is placed on the structure and function of the virus and the targeting of virus proteins by potential antiviral agents. The pathogenesis of dengue and dengue haemorrhagic fever are discussed in detail, especially the target cells and the specific receptors on these cells, thereby developing a clear overview of host and viral factors that contribute to dengue haemorrhagic fever. Finally, the book reviews the therapeutic options, paying particular attention to ways in which vector, host and environment can play a critical role in the spread of this disease. With dengue fever and other emerging viral diseases becoming increasingly prevalent around the world, this book provides valuable insight into the virus that causes this disease and potential ways to manage it. It is essential reading for all those working in tropical diseases, public health and virology. Praise from the reviews: "The book provides an excellent summary of dengue/flavivirus research and is important for individuals and institutions interested in emerging infectious diseases." MICROBIOLOGY TODAY