

1. Record Nr.	UNINA9910298418703321
Titolo	Dengue and Zika: Control and Antiviral Treatment Strategies // edited by Rolf Hilgenfeld, Subhash G. Vasudevan
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2018
ISBN	981-10-8727-X
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XIII, 375 p. 99 illus., 70 illus. in color.)
Collana	Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 1062
Disciplina	616.9101
Soggetti	Virology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Arboviruses on the rise -- Chapter 2. Historical perspective of arboviruses in Mozambique and its implication for current and future epidemics -- Chapter 3. Reliable serological testing for the diagnosis of emerging infectious diseases -- Chapter 4. Flaviviral RNA structures and their role in replication and immunity -- Chapter 5. The Molecular Specificity of the Human Antibody Response to Dengue Virus Infections -- Chapter 6. Structures of Zika virus E & NS1: relations with virus infection and host immune responses -- Chapter 7. Plugging the leak – is dengue a case of aseptic shock with NS1 at its center -- Chapter 8. Entry & NS1 as drug targets -- Chapter 9. The dengue virus replication complex: from RNA replication to protein-protein interactions to evasion of innate immunity -- Chapter 10. Crystal structure of Zika virus NS2B-NS3 protease -- Chapter 11. The transactions of NS3 and NS5 in Dengue viral RNA replication -- Chapter 12. Establishment and application of flavivirus replicons -- Chapter 13. Strategies towards protease inhibitors for emerging flaviviruses -- Chapter 14. Discovery of potent non-nucleoside inhibitors of dengue viral RNA-dependent RNA polymerase from fragment screening and structure-guided design -- Chapter 15. Nuclear cytoplasmic trafficking of dengue non-structural protein 5 as a target for antivirals -- Chapter 16. Animal Models for Dengue and Zika Vaccine Development -- Chapter 17 Understanding the human T cell response to dengue virus -- Chapter 18. Regulation and function of NK and T cells during dengue virus infection and vaccination -- Chapter 19. Structural insights into the

broad-spectrum antiviral target Endoplasmic Reticulum alpha glucosidase II -- Chapter 20. Mechanisms of antiviral activity of iminosugars against dengue virus -- Chapter 21. Countering Zika Virus: The USAMRIID Response -- Chapter 22 Dengue Antiviral Development: A Continuing Journey -- Chapter 23 An industry perspective on dengue drug discovery and development -- Chapter 24. The use of Wolbachia by the Eliminate Dengue program to interrupt transmission of *Aedes Aegypti* transmitted viruses -- Chapter 25 Seroepidemiological studies of Arboviruses in Africa.

Sommario/riassunto

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.
