

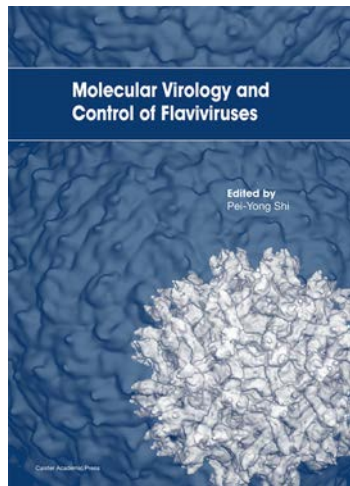
Molecular Virology and Control of Flaviviruses

Edited by: Pei-Yong Shi

Novartis Institute for Tropical Diseases, Singapore 138670

x + 358 (plus colour plates) pp, January 2012

ISBN: 978-1-904455-92-9, \$360/£180



In recent years, research on flaviviruses has progressed at a remarkable rate, leading to significant advances in our understanding of virus biology; this should ultimately lead to the development of better vaccine and antiviral strategies. The editor of this book, Pei-Yong Shi, has assembled an up-to-date and cutting-edge anthology from the leading experts in the flavivirus field.

Chapters by contributions

from established investigators, who have dedicated their careers to flavivirus research, are balanced by those from newcomers who have recently made significant contributions to the flavivirus field. The book opens with a brief introduction then divides into two sections: *Molecular Virology* (Chapters 2-9) and *Virus Prevention* (Chapters 10-15). The first section covers: virion structure; virus replication; the NS1 glycoprotein; the NS3 protein; the NS5 protein; innate immunity and flavivirus infection; host responses to flavivirus infection; and flavivirus fitness and transmission. The second section includes: vaccines; antibody therapy; small molecule antiviral development; flavivirus diagnostics; vector-virus interactions; and vector control. The book represents an important update of flavivirus research and will serve as a reference to flavivirus researchers at the graduate level and beyond. A recommended text for all virology libraries.

Contents

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Bunyaviridae

Molecular and Cellular Biology

Edited by: Alexander Plyusnin¹ and Richard M. Elliott²

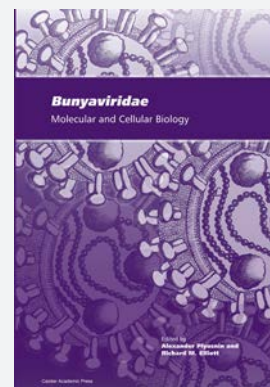
¹Department of Virology, Haartman Institute, Helsinki, Finland;

²Centre for Biomolecular Sciences, University of St Andrews, UK

viii + 214 pp, September 2011

ISBN: 978-1-904455-90-5, \$319/£159

Fuelled by the application of omics and reverse genetics technologies, impressive progress has been achieved in the field of molecular and cellular biology of *Bunyaviridae* in recent years. In this book, a panel of international experts review the most important findings, providing a timely and coherent overview of the field. All five genera i.e. *Orthobunyavirus*, *Hantavirus*, *Nairovirus*, *Plebovirus* and *Tospovirus*, are covered in separate chapters. Genetics and evolution of hantaviruses is given a special treatment in chapter 3 while current advances in diagnostics are reviewed in detail in chapter 7. The book closes with an excellent overview of the remaining challenges and future prospects in this fascinating field. The book is essential reading for everyone working on bunyaviruses and related viruses. A recommended text for all virology libraries.



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• Chapter 1: Molecular biology of orthobunyaviruses. *Richard M. Elliott and Gjon Blakqori* • Chapter 2: Molecular biology of hantavirus infection. *Christina Spiropoulou* • Chapter 3: Genetics and evolution of hantaviruses. *Tarja Sironen and Alexander Plyusnin* • Chapter 4: Molecular biology of phleboviruses. *Michèle Bouloy* • Chapter 5: Nairovirus molecular biology and interaction with host cells. *Natalia Frias-Staheli, Rafael A. Medina and Anne Bridgen* • Chapter 6: The molecular biology of tospoviruses and resistance strategies. *Richard Kormelink* • Chapter 7: *Bunyaviridae* infections and their diagnostics: *Hantavirus*, *Nairovirus*, *Orthobunyavirus*, and *Plebovirus* genera. *Antti Vaheri and Olli Vapalahti* • Chapter 8: Concluding remarks. *Alexander Plyusnin and Richard M. Elliott*

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