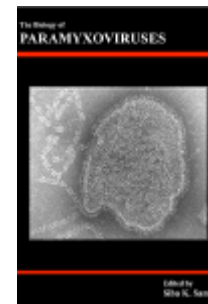


The Biology of Paramyxoviruses



Edited by: **Siba K. Samal**

VA-MD Regional College of Veterinary Medicine, University of Maryland, College Park, MD 20742-3711, USA

Published: July 2011. **Pages:** x + 470

Hardback: ISBN 978-1-904455-85-1 £180, \$360

Published by: Caister Academic Press www.caister.com

Paramyxoviruses are a diverse family of non-segmented negative strand RNA viruses that include many important human, animal, and zoonotic pathogens. Despite their enormous importance, the nature of the viral genome had proved an obstacle to research, with the result that paramyxoviral research had lagged behind that of other viruses. The advent of reverse genetics in recent years has changed this, enabling great strides to be made in our understanding of the genomics, molecular biology and viral pathogenesis.

This book provides a timely and comprehensive review of current knowledge of all paramyxoviruses and is written by renowned scientists who have made seminal contributions in their respective paramyxovirus fields of expertise. Topics include: mumps virus, simian virus 5, parainfluenza viruses, Newcastle disease and related avian paramyxoviruses, Sendai virus, Hendra virus, Nipah virus, measles virus, canine distemper virus, rinderpest virus, peste des petits ruminants virus, human respiratory syncytial virus, metapneumoviruses, and new and emerging paramyxoviruses. Each chapter covers our current knowledge on history, genome organization, viral proteins, reverse genetics, epidemiology, pathogenesis, immunity, diagnosis, prevention and control and future challenges.

This book is an invaluable reference source of timely information for virologists, microbiologists, immunologists, physicians, veterinarians and scientists working on paramyxoviruses. It is also strongly recommended for all medical and veterinary school libraries.

Chapter 1. Mumps. *Steven Rubin and Corinne Vandermeulen*

Chapter 2. The Parainfluenza Virus Simian Virus 5. *Griffith D. Parks, Mary J. Manuse, and John B. Johnson*

Chapter 3. Newcastle Disease and Related Avian Paramyxoviruses. *Siba K. Samal*

Chapter 4. Evolution of Sendai Virus: The Journey from Mouse Pathogen to a State-of-the-Art Tool in Virus Research and Biotechnology. *Yoshiyuki Nagai, Akira Takakura, Takashi Irie, Yoshikazu Yonemitsu and Bin Gotoh*

Chapter 5. Parainfluenza Viruses. *Santanu Chattopadhyay, Frank Esper and Amiya K. Banerjee*

Chapter 6. Hendra and Nipah Viruses. *Michael K. Lo, Melissa M. Coughlin and Paul A. Rota*

Chapter 7. Measles Virus. *Sibylle Schneider-Schaulies and W. Paul Duprex*

Chapter 8. Canine Distemper Virus. *Bevan Sawatsky, Sébastien Delpout and Veronika von Messling*

Chapter 9. Rinderpest and Peste des Petits Ruminants Viruses. *Michael D. Baron*

Chapter 10. Human Respiratory Syncytial Virus. *Peter L. Collins*

Chapter 11. Metapneumoviruses. *James E. Crowe, Jr. and John V. Williams*

Chapter 12. New and Emerging Paramyxoviruses. *Danielle E. Anderson and Lin-Fa Wang*

Order from:

Caister Academic Press, c/o Book Systems Plus <http://www.caister.com/order>

☞ **MALDI-TOF Mass Spectrometry in Microbiology**

Edited by: Markus Kostrzewa and Sören Schubert (Published: 2016)

☞ ***Aspergillus* and *Penicillium* in the Post-genomic Era**

Edited by: Ronald P. de Vries, Isabelle Benoit Gelber and Mikael Rørdam Andersen (Published: 2016)

☞ **The Bacteriocins: Current Knowledge and Future Prospects**

Edited by: Robert L. Dorit, Sandra M. Roy and Margaret A. Riley (Published: 2016)

☞ **Omics in Plant Disease Resistance**

Edited by: Vijai Bhadauria (Published: 2016)

☞ **Acidophiles: Life in Extremely Acidic Environments**

Edited by: Raquel Quatrini and D. Barrie Johnson (Published: 2016)

☞ **Climate Change and Microbial Ecology: Current Research and Future Trends**

Edited by: Jürgen Marxsen (Published: 2016)

☞ **Biofilms in Bioremediation: Current Research and Emerging Technologies**

Edited by: Gavin Lear (Published: 2016)

☞ **Microalgae: Current Research and Applications**

Edited by: Maria-Nefeli Tsaloglou (Published: 2016)

☞ **Gas Plasma Sterilization in Microbiology: Theory, Applications, Pitfalls and New Perspectives**

Edited by: Hideharu Shintani and Akikazu Sakudo (Published: 2016)

☞ **Virus Evolution: Current Research and Future Directions**

Edited by: Scott C. Weaver, Mark Denison, Marilyn Roossinck and Marco Vignuzzi (Published: 2016)

☞ **Arboviruses: Molecular Biology, Evolution and Control**

Edited by: Nikos Vasilakis and Duane J. Gubler (Published: 2016)

☞ ***Shigella*: Molecular and Cellular Biology**

Edited by: William D. Picking and Wendy L. Picking (Published: 2016)

☞ **Aquatic Biofilms: Ecology, Water Quality and Wastewater Treatment**

Edited by: Anna M. Romání, Helena Guasch and M. Dolors Balaguer (Published: 2016)

☞ **Alphaviruses: Current Biology**

Edited by: Suresh Mahalingam, Lara Herrero and Belinda Herring (Published: 2016)

☞ **Thermophilic Microorganisms**

Edited by: Fu-Li Li (Published: 2015)

☞ **Flow Cytometry in Microbiology: Technology and Applications**

Edited by: Martin G. Wilkinson (Published: 2015)

"an impressive group of experts" ([ProtoView](#))

☞ **Probiotics and Prebiotics: Current Research and Future Trends**

Edited by: Koen Venema and Ana Paula do Carmo (Published: 2015)

☞ **Epigenetics: Current Research and Emerging Trends**

Edited by: Brian P. Chadwick (Published: 2015)

"this is one text you don't want to miss" ([Epigenie](#)); "up-to-date information" ([ChemMedChem](#))

☞ ***Corynebacterium glutamicum*: From Systems Biology to Biotechnological Applications**

Edited by: Andreas Burkovski (Published: 2015)

"Without question a valuable book" ([BIOSpektrum](#))

☞ **Advanced Vaccine Research Methods for the Decade of Vaccines**

Edited by: Fabio Bagnoli and Rino Rappuoli (Published: 2015)