

Viral Replication

About the Book

The aim of this book is to educate the readers about the process of viral replication with the help of comprehensive information. It offers a compilation of descriptive reviews regarding the mechanisms of viral replication as implemented to several viruses of crucial significance to animal or human disease. Particularly, the book covers following topics: West Nile Virus: basic principles, replication mechanism, immune response and significant genetic determinants of virulence; elucidation of the immune evasion strategies employed by various viruses with special reference to classical swine fever virus; Influenza A Virus multiplication and the cellular SUMOylation System; viral replication techniques: manipulation of ER stress response pathways and promotion of IRES-Dependent Translation; Hepatitis B virus genetic diversity; disease pathogenesis; and antiviral replication agents. The aim of this book is to serve as a valuable source of reference for scholars, investigators, students and professors associated to the distinct fields of virology, as well as for individuals possessing greater knowledge and expertise regarding these fields, who are keen on updating their knowledge through descriptive reviews.

About the Editor

Igor Melnikov received his PhD in molecular virology from the Case Western Reserve University in Ohio, United States. He is a research professor of virology at a public research university in America. His academic and research interests lie in molecular biology and detailed analysis of viral life cycle. Melnikov has authored and edited numerous articles, journal papers and book chapters in the fields of molecular biology and virology.



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