
Preface

In this book, a panel of experts distil the most important up-to-date research findings in their calicivirus field of study, producing timely and comprehensive reviews. Each chapter gives the reader a brief introduction to the topic followed by a descriptive discussion of the past and present research areas. At the time of writing, the virus family *Caliciviridae* consisted of four genera, *Norovirus*, *Sapovirus*, *Lagovirus* and *Vesivirus*. Since then, a fifth genus has been added, *Nebovirus*, and several other genera have been proposed.

Caliciviruses infect a broad range of animals, including human, pig, cow, rabbit and mice. Caliciviruses cause a variety of symptoms in the different animal hosts, including diarrhoea, vomiting, fever, nausea, liver necrosis, and urinary tract infection. In this book, research results from a number of well-studied prototype caliciviruses are explained and discussed, and comparisons among different caliciviruses are included whenever possible. Examples include human Norwalk virus, a norovirus, thought to be responsible for roughly 90% of epidemic, non-bacterial outbreaks

of gastroenteritis around the world; feline calicivirus, a vesivirus, which infect cats and causes a variety of diseases including oral and upper respiratory tract infections; porcine enteric calicivirus, a sapovirus, which infect pigs of all ages and has been found in numerous countries; murine norovirus, a norovirus, which infect mice and has the potential to be an important replication model; and rabbit haemorrhagic disease virus, a lagovirus, which is a highly pathogenic virus in rabbits and has an interesting research history in Australia and New Zealand.

Topics include norovirus epidemiology; calicivirus contamination of the environment; genome organization and recombination, proteolytic cleavage and viral proteins; viral protein structures; virus-host interactions; calicivirus reverse genetics and replicon systems; feline calicivirus; swine calicivirus; murine norovirus pathogenesis and immunity; murine norovirus translation, replication and reverse genetics; and lagoviruses.

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