Molecular Aspects of Picornavirus Infection and Detection

Edited by Bert L. Semler, University of California, Irvine, and Ellie Ehrenfeld, University of Utah Medical School, Salt Lake City

In the past two years, giant strides have been made in our knowledge of the molecular biology and structure of picornaviruses. The complete three-dimensional structures of rhinovirus and poliovirus have now been solved through X-ray crystallographic studies, yielding much important information about the antigenic regions of viral proteins and the relationship of viral structure to antibody accessibility, with important implications for vaccine design. These three-dimensional structures have provided new insight into the mechanism of action of several antiviral compounds.

This very timely book presents our current understanding of the biology of these viruses in the context of clinical implications. Virologists, molecular biologists, and clinical researchers will all find this book useful and interesting reading. Based on the 1988 ICN-UCI International Conference on Virology, Newport Beach, Calif.

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I. Molecular Biology of Viral Replication: Use of Mutagenesis Cartridges in Molecular Genetic Analyses of Poliovirus (Bradley et al.); Replication of Hepatitis A Virus (Tiechurst et al.); Comparison of Echoviruses and Poliovirus Translation Initiation and Processing in Vitro (Jackson); Molecular Biology and Genetics of Poliovirus Protein Processing (Dewalt and Semler); Poliovirus RNA Polymerase Expressed in E. coli (Ehrenfeld and Richards); A Large Segment of Poliovirus 5’ Noncoding Region Allows Cap-Independent Translation of Downstream Sequences in Mammalian Cells (Trono et al.)

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