Molecular Basis of Viral and Microbial Pathogenesis

R. Rott

1988-03Original language:EnglishPDF # 1 #File Name: 0387186069185 pages | File size: 38.Mb

R. Rott : Molecular Basis of Viral and Microbial Pathogenesis before purchasing it in order to gage whether or not it would be worth my time, and all praised Molecular Basis of Viral and Microbial Pathogenesis:

Elucidation of the mechanisms of pathogenesis underlying the diseases caused by viruses and bacteria has fascinated scientists for many years in two ways. Firstly, these pathogenic agents represent relatively sim ple biological systems for the study of basic biological processes such as replication, gene regulation, genetic variability and host-pathogen interactions. Secondly, process in this field is valuable in a practi cal sence, since it can help in the control of these diseases. The avail ability of new genetic and immunological techniques, especially recom binant DNA methods and monoclonal antibody technology, has provided powerful tools for unravelling the genetic, biochemical and immunologi cal basis of viral and microbial pathogenesis. Molecular cloning has allowed the isolation of single genes or groups of genes related to phenotypes which appear to be immunologically important for pathogene sis. The specific elimination of such genes from the complex genomes of the pathogens can now be achieved with similar genetic techniques. These genetic studies have provided additional information on the role played by specific phenotypic traits in pathogenesis, especially when combined with relevant animal model systems. Furthermore, the struc tural analysis of important virulence factors and surface antigens may allow the prediction of antigenic domains suitable for the development of new vaccines. The 38th Mosbacher Colloquium focuses on the molecular basis of viral and microbial pathogenesis. The virology part begins with the well studied plant viroids. The unusual structure of their

genome, as well as knowledge about their replication and pathogenicity, are presented.