Molecular pathogenesis of virus infections

Virus and prion diseases remain a major public health threat, in both developed and developing countries. The worldwide HIV pandemic is but one example of a newly emerged virus disease; other potential threats come from exotic viruses such as SARS, Ebola and Hantaan viruses. Older human viruses such as influenza, papilloma, herpes and the hepatitis viruses still cause major health problems. Furthermore, as well as causing acute infections, some viruses may also establish persistent infections which can lead to the development of chronic diseases, including cancer. This symposium book covers central factors that influence the pathogenicity of virus and prion infections. Topics range from innate and adaptive immune responses and virus evasion of host defences to details of selected virus–host interactions, including those involving dengue virus, HIV, influenza viruses, coronaviruses, hepatitis C virus, herpesviruses, papillomaviruses, African swine fever virus and poxviruses.

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CONTENTS

Contributors vii

J. L. Whitton
Adaptive immune responses 1

G. Screaton and J. Mongkolsapaya
T-cell responses and dengue haemorrhagic fever 15

E. Turnbull and P. Borrow
The immune response to human immunodeficiency virus type 1 (HIV-1) 23

C. M. Dixon, L. Breakwell, G. Barry and J. K. Fazakerley
Persistent RNA virus infections 91

A. L. Hartman, J. S. Towner and S. Nichol
Pathogenesis of Ebola and Marburg viruses 109

C. Dye and S. Siddell
Molecular approaches to the pathogenesis of feline coronaviruses 125

J. C. Manson and R. M. Barron
The transmissible spongiform encephalopathies 137

R. G. Webster, A. S. Lipatov and E. Hoffmann
Influenza virus pathogenicity 159

R. P. van Rij and R. Andino
RNAi as an antiviral mechanism and therapeutic approach 179

M. L. Freeman, V. Decman and R. L. Hendricks
Neurons and host immunity conspire to maintain herpes simplex virus in a latent state 203

S. M. Lemon and K. Li
Hepatitis C virus disruption of interferon signalling pathways and evasion of innate intracellular antiviral defences 215

L. Gray, C. Jolly and C. S. Herrington
Human papillomaviruses and their effects on cell cycle control and apoptosis 235

O. Haller, F. Weber and G. Kochs
Intracellular antiviral defence mechanisms: the power of interferon-regulated restriction factors 253

M. B. Ruiz-Argüello, A. Alejo and A. Alcami
Secreted tumour necrosis factor inhibitors encoded by poxviruses 269
## Contents

**L. K. Dixon**  
Evasion of host defence systems by African swine fever virus  

**J. P. Stewart, D. Hughes, L. Roaden and B. Ebrahimi**  
Murid herpesvirus 4 as a model for gammaherpesvirus pathogenesis  

Index
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Molecular Pathogenesis of Virus Infections as Want to Read: Want to Read saving… Want to Read.

This symposium book covers the central factors that influence the pathogenicity of virus and prion infections. Virus and prion diseases remain a major public health threat, in both developed and developing countries. The worldwide HIV pandemic is one example of a newly emerged virus disease, and older human viruses such as influenza, papilloma, and the hepatitis viruses. This symposium book covers the central factors that influence the pathogenicity of virus and prion infections. Virus and prion diseases remain a major public health threat, in both developed and developing countries.

Molecular biology of CVB3 infection. Proposed mechanisms for virus-induced myocardial injury.

Host signaling determinants of CVB3 pathogenesis. Concluding remarks. Summary points.

Figure 9 Host cellular signaling determinants of viral pathogenesis. CVB3 orchestrates the simultaneous activation of a wide range of cellular signaling that contributes to the development and progression of disease. Activation of protein kinase B/Akt has been reported in a cell culture model of CVB3 infection. CVB3 activates Akt through a phosphatidylinositol 3-kinase/integrin-linked kinase (PI3K/ILK)-dependent pathway.

Pathogenesis. Measles virus invades the cells lining the upper respiratory tracts i.e. respiratory epithelium of the nasopharynx and spreads to the regional lymph nodes. After 2-3 days of replication in these sites, a primary viraemia widens the infection to the reticuloendothelial system where further replication takes place. Secondary viraemia occurs and the virus enters skin, conjunctiva, respiratory tract and other organs, including the spleen, thymus, lung, liver, and kidney and further replication occurs. Soon after the rash appears, the patient is no longer infectious. Complications because of Measles infections. Encephalitis: 1 per 1000 cases. Subacute sclerosing panencephalitis (SSPE): Fatal disease of nervous system can develop after several years after measles. Giant cell pneumonia.