

Advances in Virus Research – Volume 100

Edited by

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Cover illustration:

Morbillivirus genus phylogenetic tree, based on representative phosphoprotein gene sequences. Molecular Evolutionary Genetics Analysis 6 (MEGA6) was used for phylogeny inference according to the maximum likelihood algorithm. (Figure taken from Chapter 4: *Morbillivirus Pathogenesis and Virus-Host Interactions* by Kristin Pfeiffermann, Mareike Dörr, Florian Zirkel and Veronika von Messling)

Electron microscopical image of ASFV virions emerging from infected cells. (Figure from Chapter 3: *African Swine Fever Virus Biology and Vaccine Approaches* by Yolanda Revilla, Daniel Pérez-Núñez and Juergen A. Richt)

Transgenic *Nicotiana benthamiana* plants ideal for providing subcellular reference markers for protein localization assays. The "16c" line expresses GFP-HDEL targeted to the endoplasmic reticulum. Whole-cell view. (Figure taken from Chapter 6: *Protein Localization and Interaction Studies in Plants: Toward Defining Complete Proteomes by Visualization* by Michael M. Goodin)

Schematic of filovirus particle. GP trimers are embedded in the outer membrane, projecting spike-like structures away from the virion. The matrix is composed primarily of VP40. The ribonucleoprotein complex (RNP) is composed of L, NP, VP30, and VP35. (Figure taken from Chapter 9: *Filoviruses: Ecology, Molecular Biology, and Evolution* by Jackson Emanuel, Andrea Marzi and Heinz Feldmann)

Drosophila life cycle and routes of infection. *Drosophila* exhibits complete metamorphosis. The life cycle includes an embryo, larval forms, pupa and finally emergence as an adult. (Figure taken from Chapter 11: *Antiviral Immune Response and the Route of Infection in Drosophila melanogaster* by Juan A. Mondotte and Maria-Carla Saleh)

The reovirus attachment protein $\sigma 1$ engages multiple receptors. The reovirus virion is modeled to scale with an extended conformer of $\sigma 1$ (grey). Outer-capsid proteins $\sigma 3$ (blue), $\mu 1$ (green), and $\lambda 2$ (yellow) are indicated. (Figure taken from Chapter 10: *An Orchestra of Reovirus Receptors: Still Searching for the Conductor* by Danica M. Sutherland, Pavithra Aravamudan and Terence S. Dermody)



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