

Contents

Contents	iii
Contributors	v
Preface	ix
Chapter 1	Genome Organization, Replication, and Transcription of Filoviruses	1 <i>Elke Mühlberger</i>
Chapter 2	Structure of Viral Proteins	27 <i>Winfried Weissenhorn</i>
Chapter 3	Structural and Functional Polymorphism of the Glycoproteins of Filoviruses	59 <i>Viktor E. Volchkov, Valentina A. Volchkova, Olga Dolnik, Heinz Feldmann, and Hans-Dieter Klenk</i>
Chapter 4	Molecular Mechanisms of Filovirus Entry	91 <i>Stephen Y. Chan and Mark A. Goldsmith</i>
Chapter 5	Roles of Filoviral Matrix- and Glycoproteins in the Viral Life Cycle	137 <i>Gabriele Neumann, Takeshi Noda, Ayato Takada, Luke D. Jasenosky, and Yoshihiro Kawaoka</i>
Chapter 6	Virus Maturation	171 <i>Larissa Kolesnikova and Stephan Becker</i>
Chapter 7	Filovirus Pathogenesis in Nonhuman Primates	203 <i>Thomas W. Geisbert, Peter B. Jahrling, Tom Larsen, Kelly J. Davis, and Lisa E. Hensley</i>
Chapter 8	Ebola Virus Infection in the Guinea Pig	239 <i>Elena Ryabchikova, Margarita Smolina, Antonina Grajdantseva, and Jurii Rassadkin</i>

Chapter 9	Pathogenesis of Filovirus Infection in Mice	255
	<i>Mike Bray</i>	
Chapter 10	The Role of Endothelial Cells in Filovirus Hemorrhagic Fever	279
	<i>Hans-Joachim Schnittler, Ute Ströher, Tatiana Afanasieva, and Heinz Feldmann</i>	
Chapter 11	Modulation of Innate Immunity by Filoviruses	305
	<i>Christopher F. Basler and Peter Palese</i>	
Chapter 12	Cellular and Molecular Mechanisms of Ebola Pathogenicity and Approaches to Vaccine Development	351
	<i>Gary J. Nabel, Nancy J. Sullivan, and Zhi-Yong Yang</i>	
Index	367