
Contents

Contributors	ix
Preface	xxiii
Section I Retrovirus	1
1 Efforts to Characterize Host Response to HIV-1 Infection <i>Monty Montano & Paola Sebastiani</i>	3
2 Signaling Pathways Activated by HIV and Their Impact on Immune Responses <i>Katrina Gee, Sasmita Mishra, Wei Ma, Marko Kryworuchko & Ashok Kumar</i>	31
3 Host Immune Responses in HIV Infection <i>Robert D. Allison & Shyam Kottlil</i>	59
4 HIV-1 and RNA Interference — Examining a Complex System <i>Zachary A. Klase, Kuan-Teh Jeang & Fatah Kashanchi</i>	83
Section II Negative Single-Stranded RNA Virus	107
5 Signaling Pathways Induced by Influenza Viruses <i>Stephan Pleschka, Stephan Ludwig, Oliver Planz & Thorsten Wolff</i>	109

6	Host Immune Response to Influenza Virus <i>Thomas M. Moran & Carolina B. López</i>	131
7	Signaling Pathways in the Host Cell Response to RSV Infection <i>Allan R. Brasier, Ping Liu, Bing Tian & Sanjeev Choudhary</i>	157
8	Protective and Pathologic Host Responses to Pulmonary Respiratory Syncytial Virus Infection <i>Dennis M. Lindell & Nicholas W. Lukacs</i>	185
9	Innate Recognition of Viral Infection and the Involvement of Autophagy <i>Balaji Ramanathan & Akiko Iwasaki</i>	209
10	VSV Infection Elicits Distinct Host Responses in the Periphery and the Brain <i>Carol Shoshkes Reiss</i>	229
11	Hantavirus Infection and Innate Immunity <i>Nandini Sen, Adrish Sen, Peter Alff, Irina Gavrilovskaya & Erich R. Mackow</i>	247
12	Measles Virus Captures Specific Host Machineries to Cause Immunosuppression and Disease <i>Bumsuk Hahm & Michael B. A. Oldstone</i>	269
Section III Positive Single-Stranded RNA Virus		293
13	Severe Acute Respiratory Syndrome Coronavirus Induces Differential Host Gene Expression Responses Associated with Pathogenesis <i>Vincent T. K. Chow & W. F. Leong</i>	295

- 14 Characterization of Signaling Pathways in Cells Infected with SARS-CoV 321
Tetsuya Mizutani
- 15 Impact of Filovirus Infection upon Cellular Signaling Pathways 345
Christopher F. Basler
- 16 Responses to Ebola and Marburg Virus Infections 371
Thomas W. Geisbert, Friederike Feldmann, Joan Geisbert & Heinz Feldmann
- 17 Host Gene Expression Triggered by West Nile Virus Infection 391
Janusz T. Pawęska
- 18 West Nile Virus-host Interaction: An Immunological Prospective 415
Raghavan Bhuvanakantham & Mah-Lee Ng
- 19 Hepatitis C Virus (*Flaviviridae*): Host Immune Responses to Hepatitis C Virus 445
Christoph Neumann-Haefelin & Robert Thimme
- 20 Host responses to Hepatitis C Virus Infection: Gene Expression Profiles and Viral Pathogenesis 471
Melanie Lambotin, Françoise Stoll-Keller & Thomas F. Baumert
- 21 Differential Gene Expression in Coxsackievirus Infection and Its Effect on Viral Pathogenesis 495
Huifang M. Zhang, Travis Lim, Honglin Luo, Bruce McManus & Decheng Yang

22	Host Signaling Responses to Coxsackievirus Infection <i>Guang Gao, Decheng Yang, Bruce M. McManus & Honglin Luo</i>	525
23	Endothelial Damage Response by Dengue Virus Infection <i>Irene Bosch, Katherine J. Martin, Aniuska Becerra Artilles & Rajas V. Warke</i>	547
24	Molecular Pathogenesis of Human Norovirus <i>Ming Tan, Tibor Farkas & Xi Jiang</i>	575
25	Host Responses During Sindbis Virus Encephalomyelitis in Mice: New Implications for Understanding the Pathogenesis of Alphavirus Infections of the Central Nervous System <i>David N. Irani & Natalie A. Prow</i>	601
	Section IV Double-Stranded RNA Virus	625
26	Host Signaling Responses to Reovirus Infection <i>Da Pan, Paola Marcato, Maya Shmulevitz & Patrick W. Lee</i>	627
27	Rotavirus Antagonism of the Host Innate Immune Response <i>John T. Patton & Mario Barro</i>	655
	Index	679