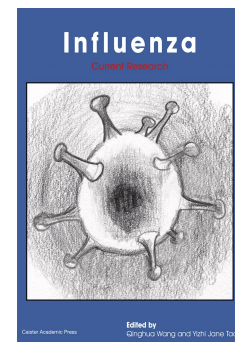


Influenza

Current Research



Edited by: Qinghua Wang and Yizhi Jane Tao
Baylor College of Medicine, and Rice University, Houston, TX, USA

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Influenza viruses are important pathogens responsible for flu epidemics and pandemics. The socio-economic impact of seasonal flu is very significant and the rapid rate of virus evolution necessitates the development of new vaccines every year. Another major challenge is the emergence of novel strains that are highly pathogenic for humans. Examples include H7N9 and H5N1 (emerged from birds) which have mortality rates of up to 30% and 60%, respectively. Research is underway to develop a universal flu vaccine that would provide long-lasting protection and be effective against emergent strains.

Following on from their highly-acclaimed 2010 book, Drs. Wang and Tao present a new, up-to-date and comprehensive review of current advancements in molecular influenza virology. Topics covered include: stem-specific broadly neutralizing antibodies to the virus hemagglutinin; virus replication and transcription; influenza B virus hemagglutinin; influenza A virus ribonucleoprotein complex; regulation of the virus replication machinery by host factors; evolution of receptor specificity of influenza A virus hemagglutinin: PB1-F2, a multi-functional non-structural influenza A virus protein; and avian influenza H7N9 virus.

Highly informative and well referenced, this book is essential reading for all influenza specialists and is recommended reading for all virologists, immunologists, molecular biologists, public health scientists and research scientists in pharmaceutical companies.

- Chapter 1.** Stem-specific Broadly Neutralizing Antibodies of Influenza Virus Hemagglutinin (*Fengyun Ni and Qinghua Wang*)
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- Chapter 3.** Recent Progress in Understanding Influenza B Virus Hemagglutinin (*Fengyun Ni and Qinghua Wang*)
- Chapter 4.** Structure and Assembly of the Influenza A Virus Ribonucleoprotein Complex (*Wenjie Zheng, Wenting Zhang, Yusong R. Guo and Yizhi Jane Tao*)
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- Chapter 6.** Receptor Specificity in Surveillance of Natural Sequence Evolution of Influenza A Virus Hemagglutinin (*Rahul Raman, Kannan Tharakaraman, Zachary Shriver, Akila Jayaraman, V. Sasisekharan and Ram Sasisekharan*)
- Chapter 7.** PB1-F2: A Multi-functional Non-structural Influenza A Virus Protein (*Eike R. Hrincius and Jonathan A. McCullers*)
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