Record Nr. UNINA9910298340603321 Influenza Pathogenesis and Control - Volume I / edited by Richard W. **Titolo** Compans, Michael B. A. Oldstone Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2014 **ISBN** 3-319-11155-8 Edizione [1st ed. 2014.] 1 online resource (442 p.) Descrizione fisica Collana Current Topics in Microbiology and Immunology, , 0070-217X;; 385 Disciplina 610 613 614.44 616.9 Soggetti Virology **Immunology** Infectious diseases Health promotion Infectious Diseases Health Promotion and Disease Prevention Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. The Hemagglutinin - a Determinant of Pathogenicity -- Molecular Nota di contenuto determinants of pathogenicity in the polymerase complex -- Receptor binding properties of the influenza virus hemagglutinin as a determinant of host range -- Acid-induced membrane fusion by the hemagglutinin protein and its role in influenza virus biology --Pandemic Preparedness and the Influenza Risk Assessment Tool (IRAT) -- Avian influenza virus transmission to mammals -- Transmission in the Guinea Pig Model -- Enhancement of influenza virus transmission by gene reassortment -- Swine and Influenza: A Challenge to One Health Research -- Influenza Pathobiology and Pathogenesis in Avian

Species -- Molecular determinants of influenza virus pathogenesis in mice -- Mammalian models for the study of H7 virus pathogenesis and transmission -- Pathogenesis and vaccination of influenza A virus in swine -- Secondary Bacterial Infections in Influenza Virus Infection

Sommario/riassunto

Pathogenesis -- Evolution and Ecology of Influenza A viruses -- Influenza A virus reassortment -- Antigenic Analyses of Highly Pathogenic Avian Influenza A Viruses.

This two-volume work covers the molecular and cell biology, genetics and evolution of influenza viruses, the pathogenesis of infection, resultant host innate and adaptive immune response, prevention of infection through vaccination and approaches to the therapeutic control of infection. Experts at the forefront of these areas provide critical assessments with regard to influenza virology, immunology, cell and molecular biology, and pathogenesis. Volume I provides overviews of the latest findings on molecular determinants of viral pathogenicity, virus entry and cell tropism, pandemic risk assessment, transmission and pathogenesis in animal species, viral evolution, ecology and antigenic variation, while Volume II focuses on the role of innate and adaptive immunity in pathogenesis, development of vaccines and antivirals.