Avian Influenza

Hans-Dieter Klenk, Mikhail N. Matrosovich, and Jürgen Stech, editors

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Avian influenza, caused by influenza virus A (H5N1), continues to be a source of outbreaks among avian species and of sporadic human cases that result in a high case-fatality rate. These historically unprecedented outbreaks have raised serious global concerns for both animal health and human health. Significant progress in the research of avian influenza has occurred in the past decade, but unanswered questions remain. How does avian influenza cross species barriers and acquire transmissibility among humans? How can we minimize the risk of emergence of a pandemic virus? Will subtype H5N1 maintain its virulence in humans when it becomes a pandemic virus? This book helps readers understand what is known and what remains to be known about avian influenza.

The book contains 19 articles written by leaders in avian influenza research. The authors provide a comprehensive and updated review of current knowledge on avian influenza, with particular emphasis on H5N1. The articles cover various aspects of avian influenza, including its epidemiology and ecology as well as control strategies for potential outbreaks of avian influenza in Asia and Europe. Some articles describe the molecular mechanisms of interspecies transmission and virulence in birds and humans. Both interspecies transmission and virulence are determined by many molecular changes in different genes, but the mechanisms for interspecies transmission and virulence are not completely understood. Other articles address timely and important issues such as vaccine development and antiviral resistance.

All pandemic influenza viruses in humans originated from avian influenza viruses. Understanding how an avian virus can become a pandemic virus that causes devastating effects on human health is critical. This book is a valuable reference for scientists and public health specialists who work in either animal health or human health.

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Forgotten People, Forgotten Diseases: The Neglected Tropical Diseases and Their Impact on Global Health and Development

Peter J. Hotez
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Forgotten People, Forgotten Diseases is an interesting and highly informative book about the global status of neglected tropical diseases (NTDs). Author Peter Hotez introduces NTDs by describing them in general, their historical importance and global impact, and their shared characteristics. According to Hotez, NTDs are among the most common infections from antiquity and occur in the world’s poorest people. Their distribution and health and economic effects are similar to those of AIDS, malaria, and tuberculosis. NTDs, however, are much less well known than these diseases and frequently display high rates of illness but few deaths, promote poverty, and create profound social stigma.

Twelve well-illustrated chapters address the important NTDs, including soil-transmitted helminth infections, schistosomiasis, filariasis, onchocerciasis, trachoma, mycobacterial infections, trypanosomiasis, leishmaniasis, dengue, leptospirosis, and rabies. Hotez discusses what these diseases are, where they occur, and who they affect. The final chapters focus on prospects to prevent and control NTDs and the need for additional advocacy. Hotez emphasizes the need for new safer and more effective drugs, as well as for so-called “anti-poverty vaccines,” which by promoting health will open doors to economic advancement and stability, goals that have been all but impossible in developing countries, largely because of NTDs.

Few people are more qualified to write such a book than Hotez, president of the Sabin Vaccine Institute and a pioneer in hookworm molecular genetics, physiology, immunology, and pathogenesis. This easy-to-read and up-to-date text undoubtedly will prove useful to graduate students, volunteers, advocates, healthcare professionals, and others interested in global health and equality. Forgotten People, Forgotten Diseases is an essential read for every serious student of tropical medicine and global infectious diseases.

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