

Special Issue

Advances in West Nile Virus Infection

Message from the Guest Editors

Since its first isolation in Uganda in 1937, the West Nile virus has become one of the most widespread arthropod-borne viruses globally, posing a significant public health concern. Various mosquito species act as competent vectors of the virus, and multiple avian species across different orders serve as effective amplifying hosts. Humans and horses are the primary incidental hosts, but other wild mammals and even reptiles have also been identified as incidental hosts. The complexity of interactions between vectors, hosts, and the virus itself highlights the urgent need for further research to better understand and manage the occurrence and severity of West Nile virus cases. In addition, climate change may play a crucial role in the increasing number of cases and the virus's spread to new regions. Changes in climate affect the biology, physiology, and ecology of both mosquitoes and birds, thus impacting the propagation of the virus in its natural environment. This Special Issue on West Nile virus provides a comprehensive overview of available control measures, exploring detection, ecology, immunology, vaccinology, and treatment strategies.

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