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Location: Merrill-Cazier Library room 154
March 19, 2009 from 3:30 – 4:30 PM

“Clinical Manifestations of West Nile Virus Infection in Humans”

Our understanding of the clinical spectrum of human illness from West Nile virus (WNV) has expanded in recent years. Approximately 80% of human infections with WNV remain clinically silent. Most individuals who do become symptomatic develop West Nile fever, characterized by fever, chills, headache, and fatigue. While most people recover completely from this manifestation, recent data suggest that some persons continue to experience persistent difficulties, particularly overwhelming fatigue. Non-neurologic clinical manifestations, including rhabdomyolysis, ocular disease, and myocarditis, have been described in case reports. More severe illness is seen in patients developing West Nile neuroinvasive disease (WNND), which includes meningitis, encephalitis, and a poliomyelitis-like syndrome. Elderly persons and immunocompromised individuals are at greater risk of developing WNND. West Nile meningitis is similar to other viral meningitides, and is characterized by fever, meningismus, and headache; most persons recover uneventfully. West Nile encephalitis is characterized by altered mental status or other neurologic deficits, and may range in severity from a mild confusional state to severe encephalopathy, coma, and death. Movement disorders including positional tremor, myoclonus, and parkinsonism, are frequently seen. West Nile poliomyelitis is due to involvement of the lower motor neurons of the spinal cord, similar to the syndrome produced by poliovirus infection. It is characterized clinically by acute, asymmetric weakness that is generally unassociated with sensory loss; brainstem involvement may result in acute neuromuscular respiratory failure, associated with high morbidity and mortality. Clinical outcomes of WNND vary, with some individuals experiencing persistent headaches, movement disorders, cognitive difficulties, and fatigue. In West Nile poliomyelitis, persistent long-term limb weakness and disability appear to be the rule. Further understanding of the clinical manifestations and outcomes of WNV infection will help guide future management and treatment options.

Refreshments will follow in the Biotechnology Building Lobby

Seminar