

GEORGE MASON UNIVERSITY
COLLEGE OF SCIENCE
BIOLOGY DEPARTMENT SEMINAR
Spring 2016

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“Host-Pathogen interactions between encephalitic viruses and their human host”

New World alphaviruses are encephalitic viruses that infect humans and horses and lead to death due to encephalitic disease. These viruses are usually transmitted by mosquitoes under natural conditions. These viruses may also be transmitted via the aerosol route. There are currently no FDA approved vaccines or therapeutics available for the treatment of these infections. We have focused on the host responses to infection to identify critical aspects of host-pathogen interactions that may be used to control viral multiplication in the human host. Using state of the art protein study approaches, we have identified at least one human enzyme (a kinase) that is required for the virus to multiply in human cells. Inhibition of the enzymatic activity controls viral replication and protects the infected host, thus providing proof of concept for such an approach to the development of novel therapeutics for emerging infectious diseases.

TUESDAY March 1, 2016

3:00-4:15 PM

Fairfax Campus: Innovation Hall Room 334
Science & Technology Campus: OCC 221