

COBRE RESEARCH SEMINAR SERIES

Virus Ecology in a Changing Environment – A Museum Approach

High latitude environments are undergoing rapid rates of ecological change. Infectious diseases, particularly zoonotic infectious diseases, are affected by environmental change as the natural host and/or vector populations shift and change. It is difficult to accurately predict these changes before they begin. However, through the utilization of broad-scale, long-term collections and specimen archives, coupled with cutting edge mapping and genomic technologies, questions about the geographic distribution, transmission and host specificity of pathogens can be elegantly and efficiently addressed. We are investigating putative transmission foci of as-yet unidentified zoonotic viruses in coastal Alaska. Through serological screening we have found a flavivirus related to Powassan virus and a hantavirus related to Sin Nombre virus. Whether these viruses are truly novel or whether they are known viruses in a novel environment remains to be determined. These are both important human pathogens and it is critical to understand their ecology as it applies to human risk of exposure in rapidly changing environments and interactions.

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Thursday, August 29, 2013 at 12:00 noon John A. Burns School of Medicine, Kaka'ako Medical Education Building Room 314 For further information, contact (808) 692-1654

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