

## Evolutionary Biology and Emergence of Zoonotic Influenza Viruses

ABOUT THE LECTURE

The first known zoonotic transmission of an avian influenza virus to humans occurred in Hong Kong in 1997. Since the emergence of this H5N1 virus there has been raised awareness of the pandemic threat posed by influenza viruses in animal populations, as exemplified by the 2009 H1N1 pandemic strain that emerged from pigs and more recently by the first recorded human deaths due to H7N9 viruses from poultry. In this seminar I will present a summary of the ecology and evolution of influenza viruses in various hosts and will discuss research on the origin and emergence of zoonotic influenza strains, with particular reference to the animal production systems they have emerged from.

**Speaker:** **Assoc Prof Gavin Smith, PhD.**

*Associate Professor, Emerging Infectious Diseases Program,  
Duke-NUS Graduate Medical School*

**Host:** **Assoc Prof Ooi Eng Eong**

*Program Deputy Director, Emerging Infectious Diseases Program,  
Duke-NUS Graduate Medical School*

**Date:** **Tuesday, 1 April 2014**

**Time:** **12.00 PM — 1.00 PM**

**(Light refreshments will be served at 11.30 AM)**

**Venue:** **Duke-NUS Graduate Medical School  
Amphitheatre, Level 2**

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ABOUT THE SPEAKER

Gavin Smith's primary training was in ecology and evolution at The University of Melbourne and he obtained his PhD at The University of Hong Kong in 2003, where he also undertook his post-doctoral training in the Department of Microbiology. Dr Smith is an authority on the evolutionary aspects of influenza virus biology, especially at the human-animal interface, and he has provided seminal studies on H5N1 viruses as well as the pandemic viruses of 1918, 1957, 1968 and 2009. In 2007 Dr Smith was awarded a 7-year Career Development Award as part of the NIAID/NIH Centers of Excellence for Influenza Research and Surveillance to continue his work on influenza. Dr Smith joined the Program in Emerging Infectious Diseases at Duke-NUS Graduate Medical School in 2010 where his research focuses on the ecology, evolution and population dynamics of both human and animal viruses. He is Secretary of the International Society for Influenza and other Respiratory Virus Diseases, Co-Chair of the WHO/OIE/FAO Working Group on the Evolution and Nomenclature of Influenza A (H5N1) Virus, and Member of the Orthomyxoviridae Study Group, Virology Division of the IUMS.

