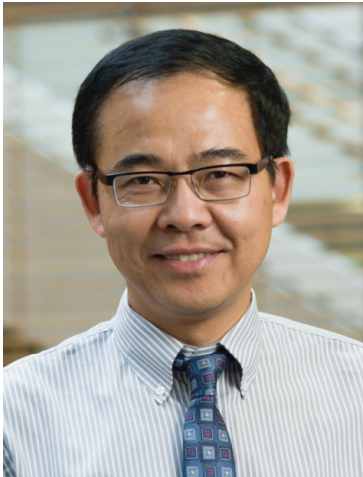




## ***BMC-GPMLS lecture series:***



**Dr. Linfa WANG**

**Programme in Emerging  
Infectious Diseases  
Duke-NUS Medical School, Singapore**

### **Bats, viruses and longevity: what's the link?**

**ABSTRACT:** Since 1994 we have witnessed several major emerging viral disease outbreaks, including Hendra, Nipah, SARS, MERS, Marburg and Ebola viruses. All of them are bat-borne zoonotic agents. Recent works have established beyond doubt that bats are important reservoirs of many viruses and some of them have the potential to spill over into livestock and human population to cause devastating diseases. Bats seem to harbor viruses with higher prevalence and greater genetic diversity. Both field investigation and laboratory infection studies suggest that viruses are capable of replicating in bats without inducing fever or overt clinical diseases. Our recent genomics and immunological studies suggest that bats' ability co-exist with viruses is most likely linked to their adaptation to flight. We hypothesize that the 100-million year adaptive evolution has shaped the bat innate defense system with several unique features that are not shared by terrestrial mammals including human and mouse. This in turn resulted in the exceptional long lifespan of bats and their ability to act as an ideal virus reservoir host.

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**BIOSKETCH:** Prof Linfa Wang is the director of the Programme in Emerging Infectious Diseases at Duke-NUS Medical School, Singapore. He is an international leader in the field of emerging zoonotic viruses and virus-host interaction. He was a member of the WHO SARS Scientific Research Advisory Committee, and played a key role in identification of bats as the natural host of SARS-like viruses. He is currently the Editor-in-Chief for the open access Virology Journal. In 2010, Prof Wang was elected to the Australian Academy of Technological Sciences and Engineering.

**Time: Thursday, July 5<sup>th</sup>, 15.00-16.00**

**Location: Fróði auditorium, Sturlugata 8**