



Immunological Insights from Novel Fluorescent Reporter Viruses and Pandemic Strains

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Date	:	8 March 2016 (Tuesday)
Time	:	10:30 – 11:30 am
Venue	:	SCM 809
Language	:	English
Facilitator	:	Dr. Zhang Hongjie

Abstract

Influenza A viruses cause severe upper respiratory illness during seasonal epidemics. They are responsible for more than 500,000 annual deaths worldwide. Dr. Manicassamy's lab is interested in understanding *in vivo* virus-host interactions and the natural evolution of influenza viruses. He will discuss new ways to develop recombinant influenza fluorescent reporter viruses and how to utilize these viruses to study *in vivo* viral infection and host responses to infection. In addition, Dr. Manicassamy will present their findings on why the 2009 H1N1 pandemic virus mostly caused infections in younger people but not elderly adults and how their lab can utilize this information to develop novel influenza vaccines.

Biography

Dr. Manicassamy received his B.Tech in Industrial Biotechnology from Anna University, Madras-India and his PhD in Microbiology and Immunology from the University of Illinois at Chicago. His graduate research in the laboratory of Prof. Lijun Rong focused on understanding the entry mechanisms of Ebola and Marburg viruses. During his postdoctoral fellowship with Dr. Adolfo Garcia-Sastre at Mount Sinai School of Medicine (New York), he engineered recombinant viruses carrying fluorescent reporter genes using the reverse genetics system. This novel tool provided the unprecedented ability to follow the dynamics of influenza virus infection *in vivo*. His research focuses on understanding *in vivo* interactions between influenza virus and its host.