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City University Distinguished Lecture Series

Speaker

Professor George Fu Gao

*Director of CAS Key Laboratory of Pathogenic Microbiology and Immunology,
Institute of Microbiology, Chinese Academy of Sciences*

Vice-President of Beijing Institutes of Life Science, Chinese Academy of Science

Deputy Director-General of Chinese Center for Disease Control and Prevention



Host jump: Flu, MERS-CoV, Ebola and Zika

on

Thursday, 26 May 2016 at 10:30 am

at

Connie Fan Multi-media Conference Room

4/F Cheng Yick-chi Building

City University of Hong Kong

Tat Chee Avenue, Kowloon

Abstract

The emergence of viral infectious diseases in recent years has caused great public health concerns worldwide. For example, the flu continues to be a major cause of mortality worldwide and highly pathogenic Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection has emerged since 2012 in the Middle East. More recently the deadly Ebola virus infected 25,000 people in West Africa, resulting in more than 10,000 deaths and Zika virus, a mosquito-borne flavivirus that seriously harms especially the developing fetus, is becoming a global public health crisis. Most of the infectious viruses are zoonotic pathogens that crossed the species barriers to infect humans, a process that we refer as 'host jump'. Here, we discuss the functional and structural mechanisms of interspecies transmission, viral genome evolution and host cell entry in flu, MERS-CoV, Ebola and Zika infections. Understanding the key determinants of 'host jump' could lead to more effective control and prevention of viral infectious diseases.

Biography

Professor George Fu Gao obtained his Ph.D degree in 1995 from Oxford University, UK. After becoming a lecturer at Oxford University, he went back to China to lead the Institute of Microbiology, Chinese Academy of Sciences (CAS), in 2004. Currently Professor Gao is the Director of CAS Key Laboratory of Pathogenic Microbiology and Immunology. He is also the Vice-President of CAS Beijing Institutes of Life Science, Deputy Director-General of Chinese Center for Disease Control and Prevention (China CDC) and Dean of UCAS Cunjia College of Medicine. He is an elected Member of CAS, Fellow of The Third World Academy of Sciences (TWAS) and Fellow of American Academy of Microbiology.

Professor Gao's research focuses on mechanisms of interspecies transmission ("host jump") and molecular immune recognition of pathogens (e.g. HIV, Influenza viruses, MERS and Ebola). He is also involved in public health policy research. He has published more than 350 papers in prestigious journals including *Cell*, *Nature*, *Science*, *Lancet*, *NEJM*, *PNAS* etc. He has received many awards including TWAS prizes in Medical Sciences in 2012 and Nikkei Asia Prize in 2014.

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http://www.cityu.edu.hk/vprt/distinguished_lecture_series/upcoming.htm

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