



***Host interactions and pathogenesis of emerging human viruses:  
Zika and Influenza in focus***

by

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**Date : 9 September 2019 (Monday)**

**Time : 11:30 a.m.**

**Venue : Room S1A, G/F Jockey Club Building for Interdisciplinary Research, 5 Sassoon Road**

**Abstract:**

With increasing globalization, urbanization, deforestation and climate change there has been alarming increase in emergence of new human viral pathogens and reemergence of old ones. Zika virus is the latest example which caused global emergency in 2016. Influenza on the other hand is constantly reemerging and continues to be a grave concern for public health across the globe. In this talk speaker will discuss his published research on Zika virus, which will include antagonism of host cellular innate immunity by ZIKV NS5 mediated targeting of STAT2, development of *Stat2*<sup>-/-</sup> mouse as a model to study Zika virus pathogenesis, ZIKV strain specific differences in the virulence and role of preexisting anti-flavivirus immunity in antibody dependent enhancement of Zika virus infection. Further, speaker will discuss his work on systems level analysis of Influenza A virus RNAi and Proteomics datasets to chart the functional landscape of IAV-Host interaction network, which led to identification of multiple host directed therapy targets. Speaker will conclude with discussing new research on regulation of intracellular trafficking of IAV structural proteins.

**Bio-sketch:**

Dr. Shashank Tripathi is currently an Assistant Professor in the Microbiology & Cell Biology Department of Indian Institute of Science, which is India's no.1 research and education Institute. He was awarded Wellcome Trust India Alliance Intermediate fellowship in 2018 and Infosys young investigator award in 2019. Earlier, he worked as Research Assistant Professor (2017-2018) and as Post-Doctoral Researcher (2012-2016) in Microbiology Department of Icahn School of Medicine at Mount Sinai in New York. There he worked in world renowned virologist Prof. Adolfo Garcia-Sastre's lab, studying influenza A virus-host interactions at systems level and immune evasion and pathogenesis of Zika viruses. Dr. Tripathi did his PhD (2012) in supervision of Dr. Sunil Lal in the Virology Group of International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi in collaboration with Influenza Division, Centers for Disease Control, Atlanta.