

Electronic Supplementary Material

DC-SIGN promotes Japanese encephalitis virus transmission from dendritic cells to T cells via virological synapses

Ping Wang^{1,2}, Mei Li^{1,2}, Wei Lu⁴, Di Zhang^{1,2}, Qinxue Hu^{1,3}✉, Yalan Liu¹✉

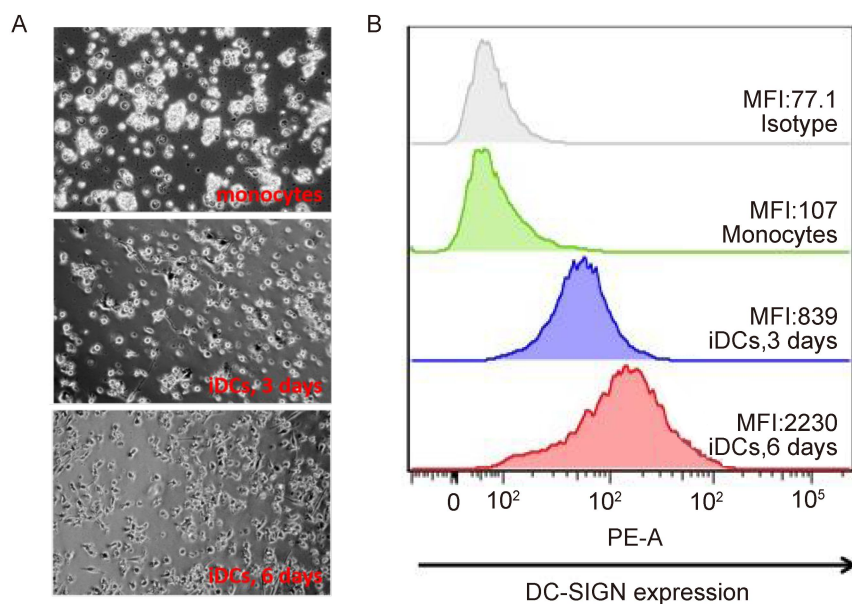
1. State Key Laboratory of Virology, Wuhan Institute of Virology, Chinese Academy of Sciences, Wuhan 430071, China

2. University of Chinese Academy of Sciences, Beijing 100049, China

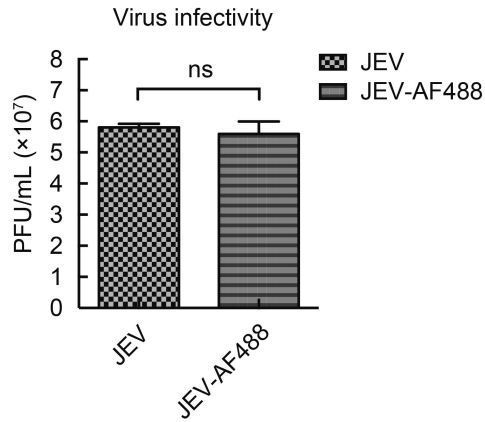
3. Institute for Infection and Immunity, St George's University of London, London SW17 0RE, UK

4. Wuhan Children's Hospital (Wuhan Maternal and Child Healthcare Hospital), Tongji Medical College, Huazhong University of Science & Technology, Wuhan 430016, China

Supporting information to DOI: 10.1007/s12250-017-4034-3

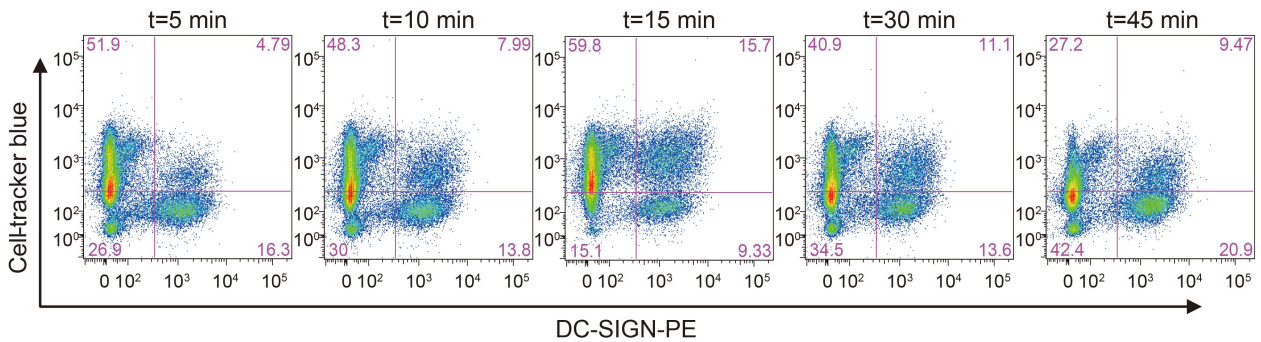


Material S1. DCs and DC-SIGN expression. (A) DC morphology. (B) The surface expression of DC-SIGN on DC.

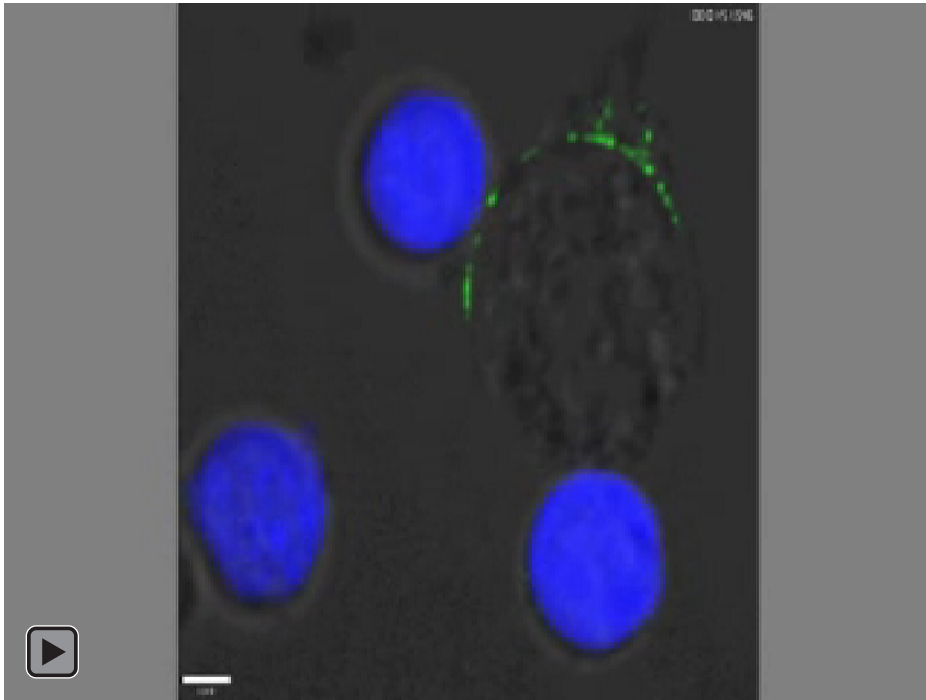


Material S2. Infectivity of JEV and JEV-AF488. JEV or JEV-AF488 (MOI = 0.1) were used to infect Raji-DC-SIGN cells for 3 days. The supernatants were collected and titered in BHK-21 cells. Data represent mean \pm SD of three independent experiments. Means were compared with the Student's *t*-test. ns, Non-significant.

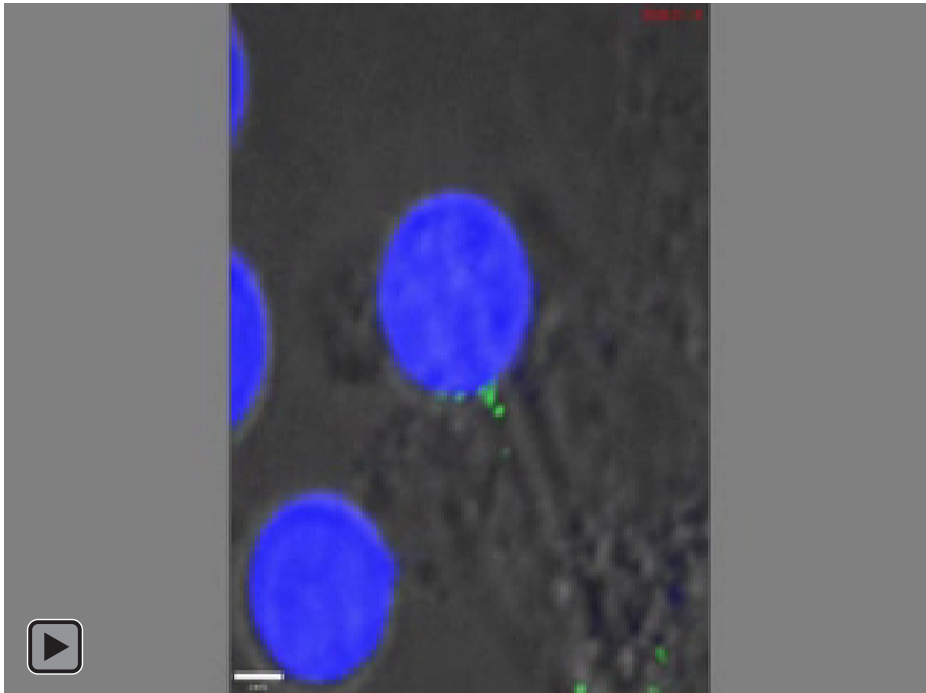
time at 37°C



Material S3. Formation of DC-T clusters. DCs were pulsed with JEV-AF488 (MOI = 10) on ice for 1 h, washed extensively to remove unbound viruses and then incubated with CellTracker Blue-labeled T cells for the indicated times before fixation and staining with phycoerythrin (PE)-conjugated DC-SIGN (DC-SIGN-PE). CD-T clusters were first gated on JEV-AF488⁺ populations followed by analysis with CellTracker Blue⁺ PE⁺ cells. Results of a representative experiment (n = 3) are shown.



Material S4. The VS between DCs and T cells formed in a few minutes (Download to play the AVI movie).



Material S5. JEV viral particles moved to the VS and were then directionally transferred to T cells (Download to play the AVI movie).