

Dr. KIM ROBERTS

Short CV

2007 PhD with Geoffrey Smith at Imperial College London, UK

2007-2012 Postdoctoral Research Associate with Wendy Barclay at Imperial College London, UK

Since 2012 Ussher Assistant Professor of Virology, Trinity College Dublin, Ireland



Research

Every winter people are infected with influenza virus, which causes respiratory disease of variable severity. In 1918 an influenza virus killed between 40-100 million people globally. Since 1997 a strain of avian influenza, H5N1, has been responsible for sporadic infection of humans, killing approximately 60% of those with confirmed productive infection; luckily this virus is not yet able to transmit efficiently from one person to another. In 2009 a new variant of influenza virus strain H1N1 swept the world but caused relatively mild disease in most people.

Influenza viruses are highly variable and mutate rapidly, and occasionally novel viruses cross the species barrier. This has the potential to lead to a pandemic, which may pose considerable risk to both healthy and “at-risk” populations worldwide. Understanding viral replication and fitness are key to assessing the threat posed by a new virus to the global population and influenza virus research is a highly topical and an exciting area to work in.

Selected Publications

Blumenkrantz D, **Roberts KL**, Shelton H, Lycett S, Barclay WS. The short stalk length of HPAI H5N1 influenza neuraminidase limits transmission of pandemic H1N1 virus in ferrets. *J Virol*. 2013

Roberts KL, Shelton H, Stilwell P, Barclay WS. Transmission of a 2009 H1N1 pandemic influenza virus occurs before fever is detected, in the ferret model. *PLoS One*. 7(8): 2012

Roberts KL, Shelton HA, Scull MA, Pickles RJ, Barclay WS. Lack of transmission of a human influenza virus with avian receptor specificity is not due to decreased virus shedding, but rather a lower infectivity in vivo. *J Gen Virol*. 2011

Roberts KL, Adrien Breiman, Gemma Carter, Helen Ewles, Michael Hollinshead, Mansun Law, and Geoffrey L. Smith. Acidic residues in the membrane-proximal stalk region of vaccinia virus protein B5 are required for glycosaminoglycan-mediated disruption of the extracellular enveloped virus outer membrane *J Gen Virol*. 2009

Address

Department of Microbiology,
Moyne Institute of Preventive Medicine,
School of Genetics and Microbiology,
Trinity College Dublin.