

SEMINAR

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Hosted by Prof Koh Lian Pin



By Katie Hampson

University of Glasgow

Katie Hampson is a Professor at the Institute of Biodiversity Animal Health & Comparative Medicine, at the University of Glasgow. For over two decades, Prof. Hampson has focused her research on the ecology of infectious diseases, particularly rabies, with the aim understanding infection dynamics across spatial scales and the impacts of control efforts, using a combination of detailed field investigations, vaccination interventions and modelling. Prof. Hampson's main areas of research include transmission dynamics, impacts of population structure, demography, and geography on spatiotemporal dynamics, and vaccination strategy and surveillance design. Her current research investigates the dynamics of infections in partially vaccinated populations, the determinants of disease persistence and challenges of eliminating infectious diseases. She completed her PhD at Princeton University in 2007, where she established a contact tracing study to investigate rabies transmission dynamics in northern Tanzania.

Contact Tracing a Different Deadly Virus

Rabies has the highest case fatality rate of any known disease, and still kills tens of thousands people every year in low- and middle-income countries around the world. Here I present insights from two decades of contact tracing rabies in Tanzania, providing understanding on the basic reproductive number, superspreading behaviour and transmission heterogeneities, the role of wildlife populations, introductions and virus movement between populations including how real-time genomic surveillance can enhance contact tracing. I also discuss the transferability of these insights to very different settings in Southeast Asia where rabies is emerging and endemic. I conclude by examine why this deadly infection persists despite being entirely preventable and implications and prospects for its elimination.