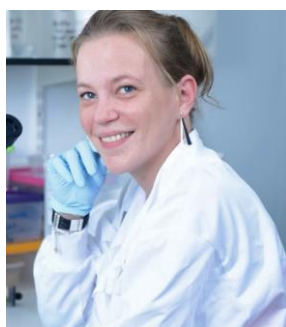




Infectious
Diseases Labs

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Dr Emilie Pondeville

Centre for Virus Research,
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Monday, 17 April 2023
4:00pm to 5:00pm (SGT)

Join Zoom Meeting [here](#)
Meeting ID: 923 4507 8843
Passcode: 902497

Can a sweet appetizer limit arbovirus transmission by mosquitoes?

As mosquito females require a blood meal to reproduce, they can act as vectors of numerous pathogens, such as arboviruses (e.g., Zika, dengue and chikungunya viruses), which constitute a substantial worldwide public health burden. In addition to blood meals, mosquito females can also take sugar meals to get carbohydrates for their energy reserves. It is now recognised that diet is a key regulator of health and disease outcome through interactions with the immune system. However, this has been mostly studied in humans and model organisms. So far, the impact of sugar feeding on mosquito immunity and in turn, how this could affect vector competence for arboviruses has not been explored. I will present findings uncovering a crucial role of sugar feeding in mosquito antiviral immunity which in turn decreases vector competence for arboviruses. Since *Ae. aegypti* almost exclusively feed on blood in some natural settings, our findings suggest that this lack of sugar intake could increase the spread of mosquito-borne arboviral diseases

Dr Emilie Pondeville (MRC-University of Glasgow Centre for Virus Research, CVR, UK) has 15 years of experience in mosquito biology and pathogen interactions. Her research interests focus on understanding how mosquito biology influences spread of mosquito-borne pathogens. In 2014, she joined the CVR to set up mosquito research infrastructures and foster the studies of mosquito-arbovirus interactions within the CVR Arthropod-borne Infections Programme. Her research aims at unravelling the impact of mosquito biology and life traits on the transmission and spread by mosquito vectors of human pathogenic arboviruses to develop vector control strategies for preventing and controlling infectious diseases.

Webinar is open to all. No registration required

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