NUS National University of Singapore

Department of Biological Sciences
Faculty of Science

BIOLOGY COLLOQUIUM

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Hosted by A/P Theodore Evans

Selfish genetic elements, sexual selection and sexual conflict

By **Nina Wedell**

Professor and Royal Society Wolfson Research Merit Award Holder

Selfish Genetic Elements (SGEs) are genes, organelles or microorganims present within the genome or cell of an organism that spread by subverting normal patterns of inheritance to increase their representation in the next generation; hence the term 'selfish'. SGEs such as endosymbionts, transposable elements, and meiotic drive genes are ubiquitous in living organisms and are often associated with fitness costs to the bearer. Despite their dramatic ability to manipulate host reproduction and frequent reduction in male fertility, the impact on mating systems and sexual selection remains little explored. I will give examples of different types of SGEs and discuss how they may impact on insect mating systems by affecting sexual selection and sexual conflict. In particular, I will show how they influence mating strategies and explore the dynamic relationship between polyandry and the frequency of SGEs in insect populations.