

# Department Colloquium

Mathematics and Statistics  
York University



## Date, Time, and Room

Tuesday November 19, 2024  
1:30PM-2:30PM  
HNE B17

## Speaker

Dr. Jane Heffernan  
York University

## Title

Modelling Infection & Immunity: Multiscale Modelling

## Abstract

Infection and immunity are both presented as characteristics of individuals and populations. We have developed mathematical models of infection and immunity in-host (immunology) and in populations (epidemiology). The models vary in complexity and thus differ in analytical and data fitting techniques. In this talk, we will discuss our work in in-host, epidemiological, and immuno-epidemiology (integrating in-host and epi models together) modelling of COVID-19, influenza, and measles. Interesting mathematical and biological characteristics will be highlighted.

Refreshments in Ross N620 at 2:30PM

science

