



**QIMR Berghofer**  
Medical Research Institute

# Statistical modelling of data arising from observational clinical studies

Unlike experimental studies where the researcher has a strong degree of control over sources of bias and variation, observational studies present major hurdles to conducting research that provides strong clinical evidence. Issues such as missing data, confounding bias and effect modification mean that we need to use statistical modelling to adjust or offset these problems. In this series, biostatistical models used for the analysis of continuous (Seminar 1) and binary (Seminar 2) clinical outcomes will be discussed.

## **Modelling continuous outcomes**

**Presented by Cameron Hurst and Alison Griffin | QIMR Berghofer Bancroft Level 6 Auditorium**

11am-12:30pm Wednesday 27 November 2019

- Research objectives and modelling approach
- Risk factors, confounders and effect modifiers
- Linear regression and ANOVA
- The General Linear Model

## **Modelling binary outcomes**

**Presented by Cameron Hurst and Alison Griffin | QIMR Berghofer Bancroft Level 6 Auditorium**

11am-12:30pm Wednesday 4 December 2019

- Measuring effect size for binary outcomes: Risk difference, relative risk and odds ratios
- Binary logistic regression
- Communicating your results

For questions or additional information, contact:

Alison Griffin at [Alison.Griffin@qimrberghofer.edu.au](mailto:Alison.Griffin@qimrberghofer.edu.au)

Statistics Unit, QIMR Berghofer Medical Research Institute,  
300 Herston Road, Herston, Queensland 4006