INTRODUCTORY COURSE IN APPLIED PUBLIC HEALTH MICROBIAL GENOMICS

12 - 15 November, 2018

Genomics is revolutionising the practice of public health microbiology and epidemiology globally, however, capacity in genomic data analysis is a key limiting factor in implementation of the technology. This course, designed specifically for public health microbiologists and epidemiologists, will introduce the concepts and provide practical experience in the analysis and interpretation of microbial genome data for public health action, with a focus on antimicrobial resistance.

Course summary

The course will consist of four morning sessions of interactive lectures and four afternoon sessions of practical, computer-based data analysis and interpretation at the Doherty Institute. The course begins with training in the generation and quality control of genome sequence data, followed by the use of genome analysis software such as Artemis and Nullarbor for genome exploration and comparative genomics. The course also covers mapping of Illumina sequence data, SNP calling, genome assembly, and annotation, and the basics of identifying genes (or mutations) associated with antibiotic resistance, as well as defining phylogenetic relationships between microbes. In all cases, the course will focus on the skills required to answer questions relevant to public health. The focus of the course is antimicrobial resistance, but will touch on other major themes, including; health care associated infections, environmental infectious diseases, enteric diseases, sexually transmitted infections, tuberculosis, viral diseases and clinical metagenomics.

Organising committee

Microbiological Diagnostic Unit Public Health Laboratory
Doherty Applied Microbial Genomics
Melbourne Bioinformatics

Prof Tim Stinear, Prof Benjamin Howden, Dr Andre Mu, Dr Deborah Williamson, Dr Dieter Bulach, A/Prof Torsten Seemann, Dr Anders Gonçalves da Silva, Dr Susan Ballard, Dr Danielle Ingle, Dr Jason Kwong, Dr Claire Gorrie, Sarah Baines, Courtney Lane, Kristy Horan, William Pitchers.

How to apply

Click here: tinyurl.com/AppPHMG2018
Applications are open **13 August** - 14 September **2018**.
Successful applicants notified on **21 September 2018**.

Cost

Doherty Applied Microbial Genomics and Melbourne Bioinformatics **subsidise the course**, with a fee of AUD$950 to cover registration (lunch included). Payment is due **by 14 October 2018**.

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Doherty Institute

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