

Microbial Community Analysis

Using DADA2 and PhyloSeq

Dates: 9 am – 5 pm, Wednesday 1st and Thursday 2nd May 2024

Location: Computer Room 3, Polwarth Building, University of Aberdeen, Foresterhill Campus.

Format: Instructor led computer-based tutorial with support demonstrators.

Instructors: CGEBM Bioinformaticians (Dr Louie van de Lagemaat, Dr Antonio Ribeiro) with lecture from Dr Alan Walker (Rowett Institute)

Description: The workshop will give the knowledge and skills to be able to carry out microbial community analysis with 16S rRNA gene data using the R-based analysis software, DADA2. This tool encompasses quality control, sequence variant identification and quantification, and taxonomic assignment. The outputs can then be processed using PhyloSeq to compute and compare diversity statistics and abundance of specific taxa. Dr. Walker will provide a lecture highlighting the importance of appropriate study design and analysis.

Topics:

- Introduction to R
- Data quality filtering
- Sequence variant identification
- Taxonomic classification
- Alpha and Beta diversities
- Statistical analyses and Best Practices

Who should attend: This workshop is aimed at researchers, staff and PhD students interested in microbial community analysis. The aim of the workshop is to provide understanding of the fundamentals of microbial community analysis and allow participants to be able to run their own analysis through DADA2. A brief introduction to R will be provided, so no previous experience is necessary.

Pre-requisites: None

Closing Date for registrations: Wednesday, 24/04/2024, one week prior to the workshop, or when capacity is reached. This course will only run if there is sufficient interest, so register early!

Closing Date for cancellations: Cancellations received by 24/04/2024 will receive a full refund minus a £40 admin fee. Full course fees will be charged for cancellations after this date.

Cost: For University of Aberdeen staff and PhD students the workshop is £300, and payment information (internal order details) must be provided with registration. Details on how to complete payment are provided on the registration form. For external delegates from academic institutions the workshop fees are £395 for students and £450 for staff. Please contact Elaina Collie-Duguid (e.collie-duguid@abdn.ac.uk) for commercial rates.

Registrations: To register for this workshop, please complete the registration form [here](#), or scan the QR code:



Further Information: Please contact Elaina Collie-Duguid (e.collie-duguid@abdn.ac.uk).