University of Glasgow | College of Medical, Veterinary & Life Sciences

An Introduction to Omics

Two-day training course

A two-day course aimed at familiarizing participants with the basis and application of various omics disciplines: genomics, transcriptomics, metabolomics, proteomics, and bioinformatics. Each of the omics disciplines will be covered by a lecture and a practical bioinformatics session. By the end of the course users should understand, for each omics level: the basis of the discipline, the instrumentation used to generate high-throughput biological data, key applications, and how to visualise the resulting data using commonly used software packages. Participants will also be aware of how different large-scale data sets can be integrated in order to obtain better biological inference, and appreciate the nature of other modern challenges in bioinformatics.

Dates
3–4 March 2014

Time
DAY 1: 10:00am–5:00pm
DAY 2: 9:00am–5:00pm

Course fee
£300

Target group
Research students and staff who wish to deepen their understanding of high-throughput data generation and analysis.

Venue
Jura teaching lab, Level 4 Annexe, University Library

Speakers
Mike Barrett, Richard Burchmore, Karl Burgess, Graham Hamilton, Pawel Herzyk

Registration and enquiries
Contact: Tanita Casci
Tanita.Casci@glasgow.ac.uk

Further information
Online at: www.polyomics.gla.ac.uk/services.html#gpTraining

Follow us on Twitter: @polyomics

Glasgow Polyomics runs formal and informal training session for internal and external users. Informal training, including one-on-one tutorials, can be arranged on request by contacting Tanita Casci.

Programme Day 1

Jura teaching lab, Level 4 Annexe, University Library

Overview of Polyomics (Mike Barrett)
10:00am–10:30am

Tea/Coffee break
10:30am–10:45am

Genomics (Graham Hamilton)
10:45am–11:45am: Lecture
11:45am–12:45pm: Practical session

Lunch
12:45pm–1:45pm

Transcriptomics (Pawel Herzyk)
1:45pm–2:45pm: Lecture
2:45pm–3:45pm: Practical session (Part 1)

Tea/Coffee break
3:45pm–4:10pm

Transcriptomics (cont'd)
4:10pm–4:40pm: Practical session (Part 2)

Questions and discussion: Genomics & Transcriptomics (Pawel Herzyk)
4:40pm–5:00pm

Programme Day 2

LC-MS- and NMR-based Metabolomics (Karl Burgess)
9:00am–10:30am: Lecture
10:30am–11:30am: Practical session

Tea/Coffee break
11:30am–11:45am

Proteomics (Richard Burchmore)
11:45am–12:45pm: Lecture

Lunch
12:45pm–1:45pm

Proteomics (cont'd)
1:45pm–2:45pm: Practical session

Integrating multiple datasets: a case study (Mike Barrett)
2:45pm–3:45pm

Tea/Coffee break
3:45pm–4:00pm

Biomarker discovery (Mike Barrett)
4:00pm–4:40pm

Closing remarks and Discussion (Mike Barrett)
4:40pm–5:00pm