

Day 1: Tuesday 9th April (Introduction to working with DNA)

Time	Activity	Location	Staff	Aim
09:30	Arrival and refreshments (tea & coffee)	Discovery Zone		
10:00	Welcome and Introduction to the programme	Discovery Zone	Fran Gale	Introduction to the programme and what will be covered Introduction to online portal to find resources Quick introduction to genomics and history of campus
10:30	Introduction to lab safety and overview of practical activities	Discovery Zone	Fran Gale	Provide an introduction to lab safety
10:45	Lab practical - Pipetting skills and DNA extraction	Learning and Training lab	Aaron Dean, Chris Adamson, Fran Gale	Introduction to pipetting skills, large and small volumes DNA extraction from strawberries as an example of a plant.
11:15	Lab practical - Edvotek Quick PCR reaction	Learning and Training lab	Aaron Dean, Chris Adamson, Fran Gale	Introduction to PCR as a method discussion of the stages in the process and applications
11:45	Speaker - DToL. Tropical diseases and drug creation	Discovery Zone	Michael Ansah	Science Insight
12:15	Lunch			
13:00 - 13:30	Lab practical - Running a gel	Learning and Training lab	Aaron Dean, Cassandra Soo, Fran Gale	Practical skills in Electrophoresis latest PCR techniques
13:30	Lab tours -CASM lab	CASM Lab	Yvette Hooks, Mimy Phan and Maria Torra I Benach.	Introduction to histology and LCM - how these samples are sent to sequencing. Groups will also check results of their gels
15:00	Discussion / reflection on the day	Discovery Zone	Fran Gale	Recap and reflections of the first day
15:30	Wrap up and depart	Discovery Zone		

Day 2: Wednesday 10th April (DNA sequencing)

Time	Activity	Location	Staff	Science aim
09:30	Arrival and refreshments	Open Lab	Fran Gale	
10:00	Refresher quiz	Open lab	Fran Gale	Recap of Day 1 content
10:15	Open lab experience and Sequencing team tour	Open lab and Long read tour	Fran Gale, Liz Cook and team	Introduction to Sequencing facilities and staff who work there
11:30	Break	Discovery Zone		
11:45	Introduction to MinION sequencing	Discovery Zone and Training Lab	Aaron Dean	Introduction to minIONs and nanopore sequencing
12:30	Lunch	Discovery Zone		
13:30	Speaker - single cell sequencing techniques	Discovery Zone	Lia Chappell	Introduction to single cell sequencing
14:30	Speaker: Applications of CRISPR	Discovery Zone	Sam Washer	Introduction to CRISPR and its applications
15:15	Reflections on the day	Discovery Zone	Fran Gale	Reflections on content covered
15:30	Wrap up / depart			

Day 3: Thursday 11th April (Working with data)

Time	Activity	Location	Staff	Science aim
09:30	Arrival and refreshments	Discovery Zone	Fran Gale	
10:00	Refresher Quiz	Discovery Zone	Fran Gale	Recap of Day 2 content
10:15	Introduction to Bioinformatics	Learning IT suite	Jorge Batista da Rocha and team	Working with data sets - explore tools, carry out multiple sequence alignment
11:45	Speaker: Real life applications of Bioinformatics	Learning IT Suite	Anna Swan - EMBL-EBI	Applications of bioinformatics
12:30	Lunch	Discovery Zone		
13:15	Bioinformatics workshop continued	Learning IT suite	Jorge Batista da Rocha and team	Use a genome browser to explore data about your favourite animal
14:30	Ethics Discussion	Discovery Zone	Sam Shingles,	Have an understanding of the ethics issues around the use genomic data
15:15	Wrap up and present certificates	Discovery Zone	Whole team	
15:30	Depart			