

Day 1: Tuesday 22 August (Introduction to working with DNA)

Time	Activity	Location	Staff	aim
09:30	<i>Arrival and refreshments (tea & coffee)</i>	Discovery Zone		
10:00	Welcome and Introduction to the programme	Discovery Zone	Fran Gale Cindy Smidt	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 Cindy Smidt	Provide an introduction to lab safety
10:45	Lab practical - Pipetting skills and DNA extraction	Learning and Training lab	Aaron Dean, Cassandra Soo, Fran Gale	<i>Introduction to pipetting skills, large and small volumes DNA extraction from animal / human vs plant / fruit</i>
11:15	Lab practical - Edvotek Quick PCR reaction	Learning and Training lab	Aaron Dean, Cassandra Soo, Fran Gale	<i>Introduction to PCR as a method discussion of the stages in the process and applications</i>
11:45	Speaker - Bioscan / DTOL	Discovery Zone	Petra Korlević	<i>Applications of PCR and barcoding</i>
12:15	<i>Lunch</i>	DiNA		
13:00 -13:45	Lab practical - Running a gel	Learning and Training lab	Aaron Dean, Cassandra Soo, Fran Gale	Practical skills in Electrophoresis latest PCR techniques
14:00	Lab tour -CASM lab	CASM (pickup at 13:50 in DZ)	Yvette Hooks and Alex Cagan	Introduction to histology and LCM - how these samples are sent to sequencing
15:00	Discussion / reflection on the day	Discovery Zone	Fran Gale Cindy Smidt	Recap and reflections of the first day
15:30	Wrap up and depart	Discovery Zone		

Day 2: Wednesday 23 August (DNA sequencing)

Time	Activity	Location	Staff	Science aim
09:30	<i>Arrival and refreshments</i>	Open Lab	Fran Gale / Cindy Smidt	
10:00	Refresher quiz	Open lab	Fran Gale / Cindy Smidt	Recap of Day 1 content
10:15	Open lab experience and Long read team tour	Open lab and Long read tour	<i>Fran Gale / Cindy Smidt</i>	Introduction to Sequencing facilities and staff who work there
11:00	<i>Break</i>	Discovery Zone		
11:15	Introduction to Minion sequencing	Discovery Zone and Training Lab	Aaaron Dean Cassandra Soo	Introducton to minions and nanopore sequencing
12:30	<i>Lunch</i>	DiNA		
13:30	Speaker - <i>single cell sequencing techniques</i>	Discovery Zone	<i>Lia chappell</i>	Introduction to single cell sequencing
14:30	Speaker: Applications of CRISPR	Discovery Zone	Andrew Bassett	Introduction to CRISPR and its applications
15:15	Reflections on the day	Discovery Zone	Fran Gale Cindy Smidt	Relections on content covered
15:30	Wrap up / depart			

Day 3: Thursday 24 August (Working with data)

Time	Activity	Location	Staff	Science aim
09:30	<i>Settle in and refreshments</i>	Discovery Zone	<i>Fran Gale Cindy Smidt</i>	
10:00	Refresher Quiz	Discovery Zone	<i>Fran Gale Cindy Smidt</i>	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	Kim Gurwitz - EMBL-EBI	Applications of bioinformatics
12:30	<i>Lunch</i>	DiNA		
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, Cindy Smidt	Have an understanding of the ethics issues around the use of genomic data
15:15	Wrap up and present certificates	Discovery Zone	Whole team	
15:30	Depart			