



Draft Timetable
Introduction to NGS Data Analysis Workshop
The University of Sydney, NSW
27th June -29th June 2017

Time	Subject
Day 1 - Introduction to the command line, data quality & alignment & ChIP-Seq	
09:00 - 09:45	Introductions and course orientation
09:45 - 10:15	Practical: Introduction to the command line
10:15 - 10:40	Morning Tea
10:40 - 11:20	Practical: Introduction to the command line course and R course
11:20 - 12:30	Introduction to NGS- technology, data formats and introduction to quality control
12:30 - 13:15	Lunch
13:15 - 13:25	Quality control: Intro to practical
13:25 - 14:05	Practical: Quality control
14:05 - 14.15	Introduction to sequence alignment
14:15 - 15:00	Practical: Sequence alignment
15:00 - 15:25	Afternoon Tea
15:25 - 15:55	Introduction to ChIP-Seq
15:55 - 17:30	Practical: ChIP-Seq analysis - Peak calling and annotation
16:30 - 17:00	Q&A and day 1 wrap-up

Time	Subject
Day 2 - ChIP-Seq motif analysis and RNA-Seq analysis	
09:00 - 09:40	Practical: Motif analysis
09:40 - 10:30	Introduction to RNA-Seq
10:30 - 10:50	Morning Tea
10:50 - 12:30	Practical: Alignment and splice junction identification
12:30 - 13:30	Lunch
13:30 - 15:00	Practical: Differential gene expression with Bio-conductor package: EdgeR and Voom
15:00 - 15:30	Afternoon Tea
15:30 - 17:00	Practical: Biological interpretation
16:30 - 17:00	Q&A and day 2 wrap-up

Time	Subject
Day 3 - <i>de novo</i> Assembly	
09:00 - 09:40	Introduction to <i>de novo</i> assembly
09:40 - 10:30	Practical: <i>de novo</i> assembly using Illumina reads
10:30 - 10:50	Morning Tea
10:50 - 11:30	Practical: <i>de novo</i> assembly using Illumina reads (cont.)
11:30 - 12:30	Practical: <i>de novo</i> assembly using PacBio – Canu workflow
12:30 - 13:30	Lunch
13:30 - 15:30	Practical: <i>de novo</i> assembly using PacBio – Canu workflow
15:30 - 15:50	Afternoon Tea
15:50 - 16:30	Practical: Polishing PacBio <i>de novo</i> assembly with Illumina reads
16:30 - 17:00	Q&A and workshop wrap-up
17:00 - 17:30	Workshop Survey



Thank you also to our partners at the CSIRO.

