

## Advanced Workshop in Whole Genome Sequence Analysis for Microbial Diagnostics

TIME	Monday 5th of November 2018	Tuesday 6th of November 2018
8:30-9:00	Registration and light breakfast	Light breakfast
9:00-9:15	Introduction of workshop and participants	Welcome back and intro
9:15-9:30		Presentation: Read mapping to identify depth of coverage, contaminating reads, and SNPs
9:30-9:45	Presentation: Intro to working commandline	
9:45-10:00	Ex. 1: Commandline on Mac/Windows	Ex. 5: Read mapping with BWA Id. of depth, contaminating reads, SNPs
10:00-10:15		
10:15-10:30	Coffee	Coffee
10:30-10:45	Presentation: Amazon Web Service (AWS) - Cloud Computing	
10:45-11:00	Presentation: Linux software repositories and -installation	Ex. 5, continued
11:00-11:15	Ex. 2: Initialising and setting up your first AWS instance	Ex. 5. recap
11:15-11:30		
11:30-11:45		Presentation: Intro to PATRIC. Examining the identified SNPs
11:45-12:00		
12:00-12:15	Lunch	Lunch
12:15-12:30		
12:30-12:45		
12:45-13:00		
13:00-13:15	Presentation: Short read quality assessment	Presentation: CGE databases and -methods run commandline
13:15-13:30	Ex. 3: Short read quality assessment with FASTQC  Trimming with Cutadapt	
13:30-13:45		
13:45-14:00		
14:00-14:15		
14:15-14:30	Ex. 3 recap	Ex. 6. recap
14:30-14:45	Coffee	
14:45-15:00	Presentation: Short reads assembly and draft genome quality assessment	Coffee
15:00-15:15	Presentation: Docker - software in containers	Ex. 7: Generating phylogenetic trees commandline  Tree visualisations
15:15-15:30	Ex. 4: Short read assembly with SPAdes and Shovill Quality evaluation with QUASt	
15:30-15:45		
15:45-16:00		
16:00-16:15	Ex. 4 recap	Ex. 7. recap
16:15-16:30		
16:30-16:45	Ex. 4 recap	Evaluation and workshop end
16:45-17:00		