



EMBL Using Nanopore Technology for Real Time, Direct, Scalable DNA/RNA Sequencing

EMBL COURSE



We have moved our website to embl.org/events. The content below is no longer being updated.

EMBL Courses and Conferences during the Coronavirus pandemic

With the onsite programme paused, many of our events are now being offered in virtual formats.

Registration is open as usual for many events, with back-up plans in place to move further courses and conferences online as necessary. Registration fees for any events affected by the COVID-19 disruption are fully refundable.

More information for participants of events at EMBL Heidelberg can be found [here](#).

Programme

Got something to say? Tweet it with [#EMBLnanopore](#)

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Day 1 - Tuesday 12 June 2018

Time	Speaker	Location
09:00	Self-introduction, project presentation (2 slides from each participant 5 min)	Flex Lab A+B
	Introduction to Nanopore Sequencing	Flex Lab A+B

Time	Speaker	Location
	Coffee break	Flex Lab A+B
	Sample and library prep theory	Flex Lab A+B
	Introduction to phylogenetics/species identification	Flex Lab A+B
	Lunch	EMBL Canteen
Afternoon	QC DNA samples	Training Lab B
	Set up 16S PCR	Training Lab B
	Introduction to MinKNOW and QC flow cells	Training Lab B
	Coffee Break	Flex Lab A+B
	Optional: Q&A session on command line and Linux	Computer Training Lab
18.00	Guided tour	
19.00	Course Dinner Downtown at Restaurant Goldener Falke	

Day 2 - Wednesday 13 June 2018

Time	Speaker	Location
09:00	Flow-cell priming and library loading	Flex Lab A+B
	Library prep for 16S (2 flow cells, 12 barcodes per flow cell)	Training Lab B
	Library prep for 1D (2 flow cells – 6 barcodes per flow cell)	Training Lab B
	Coffee Break	Computer Training Lab
	Flow-cell loading practice and library loading	Training Lab B
	Lunch	EMBL Canteen
Afternoon	Assessing a GridION/MinION run	Training Lab B

Time	Speaker	Location
	Introduction to Dogfish/basecalling	
	Introduction to Epi2ME/16S workflow/WIMP	Computer Training Lab
	Coffee break	Computer Training Lab
	Set up 16S/WIMP workflows	Computer Training Lab
	Optional: Q&A session on command line and Linux	Computer Training Lab
	Dinner	EMBL Canteen

Day 3 - Thursday 14 June 2018

Time	Speaker	Location
09:00	Library prep for rapid barcoding <i>E.Coli</i> (2 flow cells - 12 barcodes per flow cell)	Training Lab B
	Flow-cell loading practice and library loading	Training Lab B
	Coffee Break	Computer Training Lab
	Assessing a GridION/MinION run	Training Lab B
	Lunch	EMBL Canteen
Afternoon	Data Analysis Introduction of analysis tools used in day 4	Computer Training Lab
	Using the Oxford Nanopore technology for de-novo plant genome sequencing Maximilian Schmidt, RWTH Aachen University, Germany	Computer Training Lab
	Coffee Break	Computer Training Lab
	Run through an example data set (E.coli and direct RNA)	Computer Training Lab
	Dinner	EMBL Canteen

Day 4 - Friday 15 June 2018

Time	Speaker	Location
09:00	Review runs	Training Lab B
	Review 16S/WIMP workflows	Computer Training Lab
	Coffee Break	Computer Training Lab
	Data Analysis (follow data analysis script on chosen datasets)	
	Basecalling with Albacore	
	Exploring read length & quality score distribution	
	Mapping the filtered data to a reference	Computer Training Lab
	Visualizing the alignment using Tablet	
	De novo assembly with Miniasm and Racon	
	Determining Assembly quality	
	Assembly polishing with Nanopolish	
	Methylation detection with Nanopolish	
	Lunch	EMBL Canteen
Afternoon	Data Analysis continued	Computer Training Lab
	Group presentation with data analysis results (3-4 slide per group/10 min)	Flex Lab A+B
15:15	End of the course and bus departure	