



From blood to sequence

Course Plan:

Day 1	Monday, November 28th	
8.30	Registration	
9.00	DNA isolation from blood	Hands-on
13.00	Lunch break	
14.00	AmpliSeq library preparation – basic principles	Lecture
15.00	DNA isolation from blood	Hands-on
18.00	Welcome party	
Day 2	Tuesday, November 29th	
9.00	DNA quality assessment (Nanodrop, Qubit)	Hands-on
10.30	Targeted PCR	Hands-on
13.00	Lunch break	
14.00	End repair and purification	Hands-on
15.00	Adapter ligation	Hands-on
16.00	Purification/size selection with magnetic beads	Hands-on
Day 3	Wednesday, November 30th	
9.00	Amplification of library	Hands-on
10.00	Purification/size selection with magnetic beads	Hands-on
11.00	Quality control on Agilent Bioanalyser	Hands-on
13.00	Lunch break	
14.00	Overview on NGS Technologies	Lecture
15.00	Introduction to Galaxy Project, Galaxy interface	Lecture
16.00	Preparation of emulsion PCR	Hands-on
Day 4	Thursday, December 1st	
9.00	Initialization of Ion Torrent sequencer	Hands-on
11.00	Chip loading and sequencing	Hands-on
13.00	Lunch break	
14.00	FastQ file processing and quality control	Hands-on
15.30	NGS data mapping and variation calling	Hands-on
Day 5	Friday, December 2nd	
9.00	Workflows and working with large datasets	Hands-on
11.30	Sequencing data analysis	Hands-on
13.00	Lunch break	
13.30	Sequencing data analysis	Hands-on
15.00	Farewell and closure	

Courses will be held in Latvian Biomedical Research and Study centre, Ratsupites str. 1 k-1, Riga, Latvia

Two coffee breaks will be held each day - one in the morning and one in the afternoon, timing will depend on completion of laboratory hands-on tasks