Hands-on analysis of DArTseq data for linkage mapping

23–27 July 2018, Bioscience Center, IITA

Instructor: Jessen Bredeson, University of California, Berkeley USA
jessenbredeson@berkeley.edu

Co-instructor: Jessica Lyons, University of California, Berkeley USA
jblyons@berkeley.edu

Course website: https://github.com/bredeson/HandsOnDArT

Program

Day 1: Monday, 23 July		
08:45 – 09:00	Arrival and Registration	
09:00 – 09:15	Welcome address	**Dr. Michael Abberton/ Dr. Robert Asiedu**
09:15 – 09:40	Introductions and course overview	
09:40 – 11:00	GBS/DArTseq overview AWS server and UNIX I	
11:00 – 11:30	Coffee/Tea break	
11:30 – 13:00	UNIX II; HTS file formats	
13:00 – 14:00	Lunch	
14:00 – 15:30	Exercises: UNIX and File Formats	
15:30 – 17:00	Office hours (optional)	
Day 2: Tuesday, 24 July		
11:00 – 11:30	Coffee/Tea break	
11:30 – 13:00	Review DArTseq file formats	
13:00 – 14:00	Lunch	
14:00 – 16:00	Anchoring genotypes to a genome assembly	

Day 3: Wednesday, 25 July

Time	Activity	
08:45 – 09:00	Arrival	
09:00 – 11:00	Marker filtering	
11:00 – 11:30	Coffee/Tea break	
11:30 – 13:00	Sample filtering	
13:00 – 14:00	Lunch	
14:00 – 15:30	Imputation	
15:30 – 17:00	Office hours (optional)	

Day 4: Thursday, 26 July

Time	Activity	
08:45 – 09:00	Arrival	
09:00 – 11:00	Introduction to R programming I	
11:00 – 11:30	Coffee/Tea break	
11:30 – 13:00	Introduction to R programming II	
13:00 – 14:00	Lunch	
14:00 – 15:30	Linkage mapping with R/OneMap I	
15:30 – 17:00	Office hours (optional)	

Day 5: Friday, 27 July

Time	Activity	
08:45 – 09:00	Arrival	
09:00 – 10:45	Linkage mapping with R/OneMap II	
10:45 – 11:00	Group photo	
11:00 – 11:30	Coffee/Tea break	
11:30– 13:00	Linkage mapping with R/OneMap III	
13:00 – 14:00	Lunch	
14:00 – 15:30	Linkage map consistency checking	
15:30 – 16:00	Wrap up	