PROGRAM

Time	Sunday 11/6	Monday 12/6	Tuesday 13/6	Wednesday 14/6	Thursday 15/6	Friday 16/6
8:30	**Arrival to Umeå (latest)**	Introduction to adaptation and resilience in plant breeding [Dr. Sæmundur]	Genotype-by-environment interactions in plant breeding for adaptation and resilience [Dr. Lillemo]	Physiology-led breeding [Prof. Rasmussen]	Visit to Umeå Plant Science Center (UPSC) and talks therein by key Faculty members researching on adaptation and resilience for plant breeding [Prof. Nilsson/Prof. Jansson]	The use of new plant breeding techniques and epigenetics for enhancing adaptation and resilience [Prof. Teeri]
9:30		Genetic resources – sampling and search [Kristensen]	Measuring genotype-by-environment interactions [Moen]	Resource use efficiency versus tolerance [Mendanha]		Cisgenics [Hautsalo]
10:15		**Coffee**	**Coffee**	**Coffee**	**Coffee**	**Coffee**
10:45		Concepts and methods for crossbreeding [Meng]	Wide or narrow adaptation [Batte]	Ideotype breeding [Ločmele]	Visit to UPSC (cont.)	Genome editing through CRISP/Cas9 [Lin]
11:30		Marker-aided breeding [Davidsson]	Evolutionary and participatory breeding approach [Hayatgheibi]	Adaptation and adaptability [Bos]	Visit to UPSC (cont.)	*Closing*
12:15		**Lunch Umeå Univ. (UU) Restaurang Lingon**	**Lunch UU Restaurang Lingon**	**Lunch UU Restaurang Lingon**	**Lunch UU Restaurang Lingon**	**Lunch (may start before) UU Restaurang Lingon**
14:00		Association genetics for elucidating inheritance of adaptation and resilience related traits [Prof. Wu]	Case study Breeding maize for adaptation and resilience [Prof. Bernardo]	Case study Genomic selection for adaptation and resilience in maize and wheat [Prof. Crossa]	Genomic prediction in selfing species: rice [Zhou]	
15:00		Association genetics in perennial crops and tress [Chen]	Flooding/Sub-emergence [Haikka]	Association genetics in selfing species [Mukamuhirwa]	**14:45** Genomic prediction in outcrossing species: maize [Tefera]	
15:45		**Coffee/Fika**	**Coffee/Fika**	**Coffee/Fika**	**15:30 Coffee/Fika**	
16:15	Coffee/Fika + Welcome	Plant Breeding Pro-Am Invitational [z] Prof. Rex Bernardo	Salinity [Kokare]	Genomic association studies in polyploids [Selga]	**16:00** Genomic prediction in disomic polyploid wheat [Tsehay]	
17:00	Guest Lecture Prof. José Crossa		**Poster I (1 – 9)**	**Poster II (11 – 18)**	**16:45** Results on Plant Breeding Pro-Am Invitational Chair: Prof. Rex Bernardo	
19:00	**Dinner Hotel OK [tbc]**	**Dinner UU Restaurang Lingon [tbc]**	**Dinner UU Restaurang Lingon [tbc]**	**Dinner UU Restaurang Lingon [tbc]**	**Course Dinner [name and address tbc]** *Best Poster Award*	

[z] In the Invitational Pro-Am Plant Breeding Tournament, teams will compete to maximize the genetic gains in a simulated breeding program for barley. Each team will include 2-3 graduate students and a professional plant breeder. Together, the teammates will make breeding decisions in an attempt to develop a barley cultivar that meets certain standards for three traits that show unfavorable correlations: grain yield, protein concentration, and disease resistance. Each team will need to decide which parents to cross; how many crosses to make; how many progeny to create in each cross; when and how to use markers in selection; how many locations to use in phenotyping; and which specific progeny to select in each stage--all while staying within a fixed budget.