Minutes for Steering Committee for the Multinational Brassica Genome Project (MBGP)

Date: Sunday January 15, 2012

Time: 10:00 AM to 1:00 PM (13:00)

Place: Town and Country Hotel, San Diego

Agenda:

1. Introductions and approval of minutes; sign up sheet passed around

2. Update on genetic resources/diversity sets/association studies

Brassica napus and B. oleracea diversity sets established in UK (Graham Teakle).

Seeds may be provided with cost for seed production costs included.

Brassica rapa diversity sets – none available yet?

Brassica napus lines, 150, with phenotype data to be available, also from Germany?

Graham King is willing to post any information on brassica.info

3. Update on genome sequencing activities (Brassica species only)

Brassica rapa genome: Applause for Nature Genetics paper published.

Xiaowu Wang will continue to improve this genome.

Other Brassica rapa genomes being sequenced and re-sequenced by JGI.

Brassica oleracea genomes: At least two projects:

Shengyi has sequenced genotype called golden early, an inbred used for many commercial hybrid (so he can not provide seed).

Isobel Parkin and collaborators have sequenced the rapid cycling TO1000 genotype.

Brassica nigra – Isobel Parkin is working on this

Brassica carinata and B. juncea – nobody is working on these genomes?

Brassica napus: Several projects:

Boulos Chaloub updated us in his Brassica workshop talk on the status of Brassica napus project.

Shengyi is also sequencing Brassica napus genome (but seed not publicly available yet?).

4. Update on SNP discovery activities and assay resources

There is a 50k SNP chip consortium (goldengate & infinium). In total, there are about 45,000 SNPs (with aim of 50-60K) in that collection. Others hope to add to this to get to 80-90K SNPs. A 6k Infinium is available, but will people want to use it with 60 k available?

KASPARs available for B. oleracea. Also, Kbioscience markers?

Others are moving on to GBS and RAD-tag-like markers; and transcriptome markers.

5. Standardised annotation of genome sequences, and databases (and future of Brassica.info)

EBI and ENSEMBL, no funding for brassica like there is for Gramene?

ENSEMBL loaded from the Brassica oleracea genome.

What about EU taskforce? EU-US plant biotech taskforce. Are there plans to make ENSEMBL more ploidy friendly. Different formats for presenting data, doesn’t matter what format, but important to have annotation universal. It is not EBI’s job to police which annotation programs are used. Comparative genomics and functional annotation and GO terms and such will be updated with each release. It will come down to file format issues.

Eric Lyons updated group on CoGE/iPlant tools: it provides much finer control and allows sharing prepublication. Loading genomes is not fully public, and takes about half an hour to an hour to load. There are about 15,000 genomes. Haibo Tang is working on algorithms.

How do we deal with all the resequencing data? Prototype is not scalable or robust, for adding additional layersCan help order contigs roughly, but quickly

Arabidopsis Informatics Platform (AIP): The Brassica community should be at the table for the Arabidopsis workshop to discuss these.

Graham King will be taking brassica.info with him from the UK to Australia.

6. Upcoming international meetings

Brassica 2012 meeting. Nov 12th-16th 2012 in Italy (2013 one in China?)

Canola Meeting in March 2013 in Brazil.

Horticultural meeting in Brisbane?

7. Discuss future role/purpose of MBPG in age of democratized –omics

Is there a fundamental difference now in the meeting? Perhaps we need a wiki .

It is important to not perhaps reinvent the wheel regarding infrastructure.

Subcommittee to define what is needed for infrastructure.

Revisit Graham King’s white paper on this topic. Version 1.0 in March 2005!

Template from France Canada UK…. List of names taken by Pires.

Future, we should consider moving this meeting to Saturday evenings so we can get some food and beer into meeting. BYOF, and with beer.

8 Any other business?

None, meeting adjourned.