

BIC Genetics Committee Minutes
Meeting during the 2007 50th Anniversary BIC Meeting
Concourse Hotel, Madison, Wisconsin, October 31st

Started: 4:30PM

Committee member attendance:

- | | |
|------------------|---------------------------------|
| 1. Jim Beaver | University of Puerto Rico |
| 2. Matthew Blair | CIAT |
| 3. Paul Gepts | University of California, Davis |
| 4. Jim Kelly | Michigan State |
| 5. Phil Miklas | USDA-ARS |
| 6. Phil McClean | North Dakota State |
| 7. Tim Porch | USDA-ARS (Chair) |
| 8. Carlos Urrea | University of Nebraska |
| 9. Molly Welsh | USDA-ARS (ex-officio) |

Minutes:

1. Topic: Regular cycle for review of the gene list and updating of the online list at the BIC website

Decision

The gene list will be reviewed and updated every six months. Each Annual Report of the BIC will include a section with new gene symbols. The complete list of gene symbols will continue to be posted on the BIC website and published every 5 years in the Annual Report of the BIC.

2. Topic: Review of published gene symbols or new gene symbols that have not gone through the genetics committee

A. *Phg* gene symbol for angular leaf spot resistance

James Beaver presented the proposed gene symbol for angular leaf spot (*Phg*) and indicated that allelism tests had already been completed (Mahuku et al., 2004).

No Decision

The committee decided to consider the approval of these gene symbols by email or during the next meeting in Puerto Rico, 2009.

B. Gene symbols for *Apion godmani* resistance

Several papers have been published using the *Agm* and *Agr* gene symbols for *Apion godmani* resistance, however these symbols have not been previously approved by the genetics committee. Matthew Blair presented the molecular mapping of *Apion godmani* resistance genes (Blair et al., 2006) and the previous assignment of gene symbols (Garza et al., 1996).

No Decision

The committee will consider the approval of these gene symbols by email or during the next meeting in Puerto Rico, 2009.

C. Gene symbols for Arcelin

Jim Myers presented the issue of the use of *Arc* or *Arl* gene symbols in the literature for Arcelin that confers resistance to bruchid insects. These gene symbols have previously been approved, but guidelines are needed for their application to molecular and genetic studies in tepary and common bean.

No Decision

New gene and allele symbols will be reviewed once sufficient evidence exists to test inheritance hypotheses.

D. Anthracnose gene symbols

Celeste Vidigal presented results on the inheritance of anthracnose resistance in Mexico 222.

No Decision

The committee will continue the discussion by e-mail or during the next meeting in Puerto Rico, 2009.

3. Topic: Nomenclature system

Paul Gepts suggested that the common bean community should use the linkage group nomenclature (Freyre et al., 1998) instead of the chromosome number nomenclature (Pedrosa et al., 2003).

Decision

The Genetics Committee will recommend the Freyre et al. (1998) nomenclature for linkage group nomenclature and orientation. Paul Gepts will contact the relevant groups concerning these new guidelines. These guidelines will then be posted on the BIC website. The prefix identification of each linkage group with the letter 'B' or 'Pv' is still under consideration. Either 'B' or 'Pv' will be selected.

4. Topic: QTL nomenclature

QTL nomenclature varies from study to study in common bean. There is a need for a common system for assigning QTL symbols.

Decision

Phil Milkas (convener), Matthew Blair, and Paul Gepts, will consult and decide on the best system for QTL nomenclature in common bean.

5. Topic: Conflicting complementation results with Widusa and PI 207262 using race 65 in two publications

There are conflicting complementation results from Widusa and PI 207262 from different groups that may be due to differences in the isolate of race 65 that is being employed. In addition, data from a number of different groups indicate that *Co-9* and *Co-3* are allelic.

Decision

Considering the allelism results presented, *Co-9* will be renamed *Co-3*³. Jim Kelly will communicate this information to those scientists involved.

6. Topic: Posting of items regarding common bean genetics on the BIC website.

Review process for posting of unpublished results on the BIC website.

James Kelly brought the issue of SSR data from different sources posted on the BIC website. There were several errors in some of the unpublished work on the website, thus the discussion involved whether or not unpublished work should be posted.

Decision

Post published information on the website. Post unpublished work with author names and a disclaimer so that the authors can be contacted in case questions arise.

7. Topic: Change in Membership of Genetics Committee

Decision

James Beaver stepped down from the Genetics Committee and Kirstin Bett will replace him.

8. Topic: Next Meeting

Recommendation to conduct a half-day meeting during the W1150 meeting in Puerto Rico in February, 2009 because of the lack of time to complete the Genetics Committee business during the short one hour meeting at the BIC.

Minutes prepared by Carlos Urrea

ADDENDUM

Recent Decisions made by the Genetics Committee after the meeting on 10/31/07 in Madison, WI.

1. Decision in reference to “**Topic 3: Nomenclature system**” from the Genetics Committee meeting on 10/31/07 (above).

Decision: The revision of the linkage group nomenclature and orientation has been accomplished and approved by the Genetics Committee. It is available at: <http://www.css.msu.edu/bic/PDF/Standardized%20Genetic%20&%20Physical%20Bean%20Map%202008.pdf>. It has been agreed to drop the prefix B from linkage group names. When warranted, for example in comparative genomics, the prefix Pv (e.g., Pv1) can be added to distinguish linkage groups with the same number but from different species.