

Second *Aspergillus* Meeting Summary

The Second *Aspergillus* Meeting (informally called Asperfest2) was a resounding success. Held March 13-15, 2005, at Asilomar Conference Center (California) immediately before the 23rd Fungal Genetics Meeting, Asperfest2 brought together 102 registered participants representing 16 countries. The scientific program included a session devoted to young investigators, talks selected from abstracts, a session focusing on new technologies for *Aspergilli*, a poster session and the annual Pontecorvo lecture, presented this year by John Clutterbuck. In addition to the scientific program, community directions were discussed and elections for two open *Aspergillus* Genomics Research Policy Committee (AGRPC) positions were held.

From the community directions discussion session the following priorities were clear:

1. Annotation Improvement. The top priority for the community is the improvement of annotation for the existing *Aspergillus* genomes. Improved annotation is needed for most of the genome-wide approaches the community envisions (ie, high quality microarrays, protein tagging and knockouts). The tools session showcased several recent exciting technical developments including Ku deletion strains for improved homologous integration and tagging methods. Realizing the potential of these developments requires accurate designation of 5' and 3' ends and to a lesser degree, introns. As Steve Osmani (Ohio State) pointed out, annotation has now become the bottleneck restricting full use of genome resources. The basic problem seems to be that the auto-annotation of filamentous fungal genomes is still very new and so the prediction programs have a long way to go.

2. Microarrays. There was a lively discussion of microarrays covering both glass slide and Affymetrix formats.

A. Glass slide format – Questions were raised about the design and quality of currently available PFGRC *A. fumigatus* oligo microarrays and the soon to be available PFGRC *A. nidulans* arrays. The feeling was that fungal auto-annotation was the likely source of at least some problems. The community expressed a willingness to help in any way possible with individuals volunteering to furnish existing cDNA and partial microarray data. The community charged the chair of the AGRPC with contacting PFGRC representatives to investigate ways to improve annotation.

Questions were also raised about access of non-US scientists to PFGRC arrays. AGRPC Chair will investigate how international array applications are evaluated by PFGRC and report back to the community.

B. Affymetrix format - According to Michael Lyng Nielsen (DTU) and Lorri Maggio-Hall (UWM) NimbleGen and Affymetrix are now making *A. nidulans* chips which their groups are using or have used. The feeling from many comments was that Affy chips are the best quality, but the cost of these chips and the equipment needed to use them would be more than most labs could afford. Because these chips have already been designed it is hoped that the community might be able to get some kind of group deal to make these arrays more affordable. AGRPC will investigate possibilities.

3. Database improvement. It was recognized in the discussions of annotation and microarrays that an essential resource for exploiting *Aspergillus* genomes will be a database where updated annotation and access to a variety of genome-wide data will be available. Michael Anderson (Univ. of Manchester) presented an update of the CADRE database. He

pointed out that CADRE is very supportive of improved annotation, but needs more funding to curate genomes.

After the close of Asperfest, the newly elected 2005 AGRPC took the following actions:

1. Linda Lasure and Gustavo Goldman were asked to join the AGRPC as special appointees for 2005. Both agreed to serve.
2. Michelle Momany was re-elected AGRPC chair.
3. Paul Dyer was elected program chair for Asperfest3 to be held in Vienna, Austria, April 6-7, 2006, immediately preceding ECFG8.
4. AGRPC discussions emphasized the need to investigate funding options and facilitate grant applications for community resource development. After the close of Asperfest and in response to AGRPC discussions and specific suggestions from Greg May (MD Anderson) and Mark Caddick (Univ of Liverpool), Michelle Momany appointed an *A. nidulans* "Action Committee" charged with investigating funding options and coming up with a plan for submitting proposals. It is hoped that this committee will lay the ground work for a proposal(s) to generate genome-wide community resources. The *A. nidulans* Action Committee members are: Gerhard Braus, Mark Caddick, Gustavo Goldman, Michael Hynes, Nancy Keller, Michelle Momany, Berl Oakely and Steve Osmani. Steve Osmani agreed to chair the committee.

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