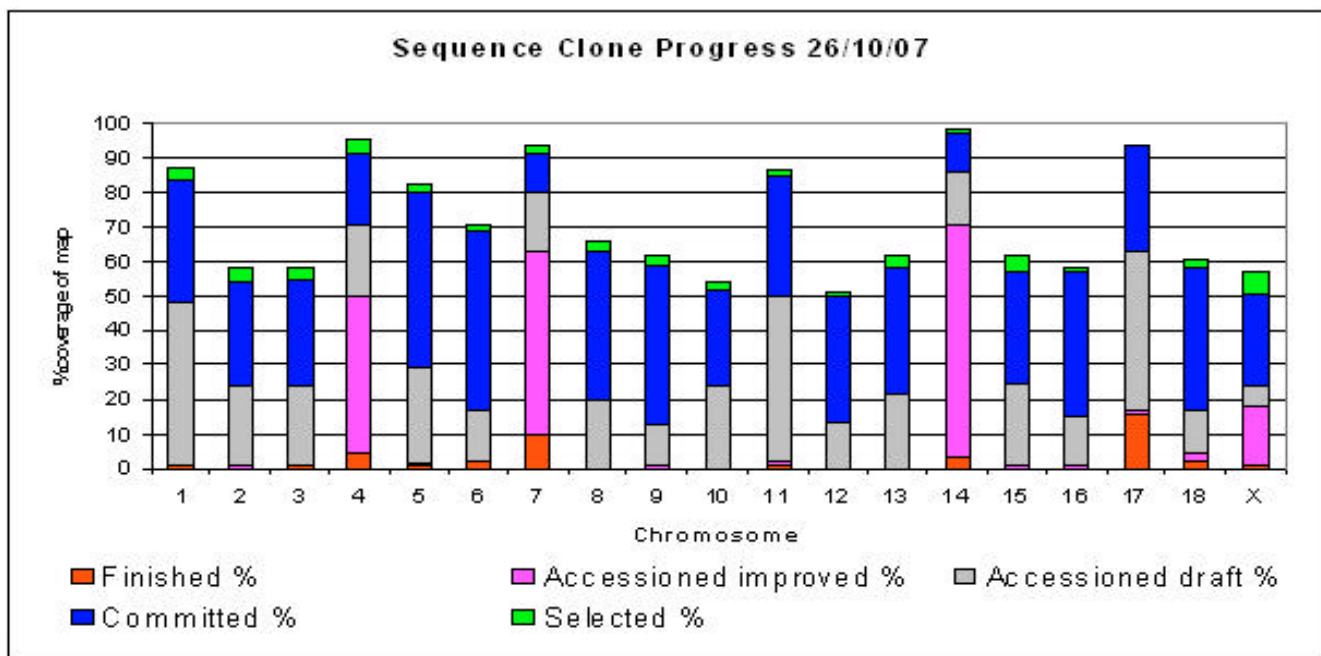




Pig Genome Update

No. 87 November 1, 2007

The Swine Genome Sequencing Workshop was held October 26th in Paris. It was attended by 30 individuals from nearly 10 countries. Issues of the sequencing project, identifying approaches to ensure broad and rapid utilization of the sequence information, and examining ways to find additional financial support were discussed. To date about 72% of the map is undergoing sequencing or in the pipeline with 46MB finished. The goal is to move beyond the original 3X coverage desired and move to an “improved” coverage that is actually better than 4X since “improved” sequencing will reduce the gaps greatly. The progress of sequencing is somewhere in the neighborhood of 500-600 clones a month. This means that there will be an improved sequence likely completed in Fall of 2009. It is important to remember that while this appears to be a year later than earlier predicted the quality of the sequence will be considerably improved. Interested persons are encouraged to visit the various web sites at Sanger, the pig genome and the animal genome web site. Further details will be at the International Swine Genome Workshop meeting on Sunday at 12:45 pm at PAG 2008 in San Diego. An annotation workshop will also be presented in the summer of 2008 near the time of ISAG. For those further interested please see progress chart below and recently published papers <http://genomebiology.com/2007/8/7/R139> and <http://genomebiology.com/2007/8/8/R168> and <http://genomebiology.com/2007/8/4/R45> for new information on the progress.



The International Symposium of Animal Genetics for Animal health (AGAH) was in Paris, France from October 23-25, 2008. It was a large success, in large part due to the excellent program of talks and posters, and the large number of participants (over 250 from 33 countries) that attended. The program chairs, Drs. Marie-Hélène Pinard and Cyril Gay and the scientific committee should be commended as should OIE for providing such a nice location. Proceedings will be published in the early spring and details will follow when available.

SNP chip development underway. A consortium from the USDA (ARS, CSREES), University of Illinois, Iowa State University and the National Pork Board is currently undertaking a concerted effort to develop a high density (~50K) SNP chip for pigs. The consortium is aiming to develop this research tool by mid 2008. It is envisioned that this chip will be employed widely by the porcine research community to drive gene discovery and association analyses and eventually whole genome selection. The SNPs included for this project will be selected from those in public databases on February 1, 2008. The consortium would like to invite researchers interested in access to this technology to join their group. In addition, investigators possessing SNP information that has not been placed in public databases are encouraged to submit their information as soon as possible so that the most useful set of SNPs can be included in the final product. At present, neither the cost per chip nor the commercial provider of the technology has been finalized. To help define both of these, the consortium is now seeking to quantify the likely demand for the finished chip. Please contact either Mohammad Koohmaraie (Mohammad.Koohmaraie@ARS.USDA.GOV), Max Rothschild (mfrothsc@iastate.edu) or Larry Schook (schook@uiuc.edu) if your research program/institution would consider purchasing and employing the 50K pig SNP chip. Also, please indicate the approximate number of chips required initially and per year so that we can include you in the mailing list concerning chip production and supply. Our aim is to achieve the maximum economy of scale across the pig genomic community and in turn achieve the lowest unit cost per chip. Please don't hesitate to contact any of the individuals included in this notice for additional information.

PAG-XVI and the swine genome and NRSP8 meetings will be held January 12-16, 2008 at the usual spot, the Town and Country Hotel, San Diego, CA. The program is available at <http://www.intl-pag.org/16/16-pag.html>. The swine genome meeting NC1004 will be held on Saturday, Jan. 12 and the swine genome sequencing meeting Sunday January 13. The Swine Genome Coordinator again have some funds to help with travel support for NAGRP members or their lab members so please contact the Coordinator as soon as possible.

USDA-NRI Grant RFA for FY 2008 is now available at <http://www.csrees.usda.gov/> or www.grants.gov. Program 43.0, Animal Genome, contains five elements: Translational Animal Genomics, Tools and Resources, Bioinformatics, Functional Genomics and Whole Genome Enabled Animal Selection. The deadline for the first four elements is June 5, 2008. However, integrated proposals only for Translational Animal Genomics and all proposals for Functional Genomics require submission of a letter of intent by March 14, 2008. The deadline for Whole Animal Genome Enabled Selection is Feb. 14, 2008, and this section requires a letter of intent by November 26, 2007 (only one award is likely to be made in this element). Please see the RFA for deadlines for other animal-related programs. Letters of intent are required for some programs/elements to insure that proposal aims meet the goals of the program and to minimize wasted effort in the application process.

The NRSP-8 renewal application is mid stream now. The NRSP-8 writing team, coordinated by Mary Delany, includes existing coordinators or their representatives, and the NC-1008 writing team is being led by Chris Ashwell (objective 1), Jim Petitte (objective 2) and Sue Lamont (objective 3). Be sure to fill out your appendix E to state your participation and please get your director's support for this project.

The USDA's Blueprint for Animal Genomics, a product of several months of effort of a USDA Animal Genomics Task Force commissioned by Undersecretary Joseph Jen in 2006, is now available at <http://www.csrees.usda.gov/newsroom/news/2007news/blueprint.html>. The Blueprint outlines needs and goals in the areas of "Science to Practice", "Discovery Science" and "Infrastructure". The goals of this Blueprint are closely aligned with the priorities of the NRSP-8 renewal application.

The pig oligo arrays can be ordered. Swine oligo arrays can now be ordered (<http://www.pigoligoarray.org/>). A validation experiment, funded in part by the participants and the USDA Pig Genome Coordinator, is taking place and will be reported on at PAG 2008.

Upcoming meetings (see: <http://www.animalgenome.org/pigs/community/meetings.html>)

NSIF Annual Meeting and Genetic Symposium being held in Kansas City, Missouri on December 6 and 7, 2007. For details and program information please contact Steve Moeller at moeller.29@osu.edu

2nd GSA Model Organisms & Human Biology Meeting, Jan. 5-9, 2008, Town & Country Convention Center, San Diego, CA. Please see <http://www.gsa-modelorganisms.org/>

Plant and Animal Genome XVI, joint with NC-1008 and NAGRP annual meetings, Jan. 12-16, 2008, Town & Country Convention Center, San Diego, CA. See <http://www.intl-pag.org/>.

Midwestern Section, American Dairy Science Association, American Society of Animal Science, Annual Meeting, Des Moines, Iowa, March 17-19, 2008. See <http://adsa.asas.org/midwest/2008/>

ASAS 2008 Centennial meeting, July 7-11, 2008, Indianapolis, Indiana, USA. See <http://www.asas.org/100years/>

XXXI conference of the International Society of Animal Genetics (ISAG) July 20-24, 2008 Amsterdam, The Netherlands. See www.isag2008.nl

Items for *Pig Genome Update 88* can be sent to me by no later than December 15 please.

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cc: Muquarrab A. Qureshi, CSREES and Caird Rexroad II, ARS

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