



Pig Genome Update

No. 65 March 1, 2004

The PAGXII meetings and workshops were quite successful. Thanks to some excellent plenary speakers and numerous good workshops this year's meeting were again quite successful with nearly 2,000 attendees. Plans are already underway to get exciting speakers for next year. If you have suggestions please email one of the committee or mfrothsc@iastate.edu. In addition, the NRSP8 Swine Meeting was held Saturday, January 10 and organized and chaired by Diane Moody, Chair NRSP8 Swine Committee. The morning's program was a joint program with the NC1004 Swine Genome Committee and co-chaired by Brad Freking. The morning session consisted of three very interesting invited speakers. These speakers and their presentations were: Tosso Leeb, School of Veterinary Medicine Hannover, Germany entitled "A 5.5 MB *Bac/Pac* Contig of Pig Chromosome 6q1.2 and its Integration with Existing RH, Genetic and Comparative Maps", Lawrence Schook, University of Illinois entitled "Recombineering: A Tool For Harvesting Genomic Information" and Archie Clutter, Monsanto Company entitled "Implementation of Marker-Assisted Selection in Commercial Populations". The remainder of the workshop included administrative reports given by Margaret Dentine, NRSP8 Administrative Advisor and Burt Stromberg, NC1004 Administrative Advisor, followed by Max Rothschild, the NRSP8 Swine Genome Coordinator, and Jim Reecy, the new NRSP8 Bioinformatics Coordinator. The joint NRSP8/NC1004 Station Reports were presented by BARC, ISU, IL, MSU, MN, Purdue, NCSU, NV, OK, and WSU. The workshop ended with the NRSP8 Business meeting that concluded a number of items. The NRSP8 representatives discussed and agreed that all station reports should be posted in the future on the Swine Genome Coordinator's website. Representatives agreed that next year reports should be made available electronically to all representatives prior to the PAG meeting so that members will then be able to read the reports in advance. There will also be no need to bring printed reports to the meeting. Microarray availability was discussed. This year has been very successful. The Qiagen produced and University of Minnesota printed 13,000 70-mer oligos have been distributed to many parties and some are still available. The NRSP8 members approved a plan for the oligos and a cutoff date should be set for NRSP8 requests so that remaining sets would be freed up and some sets of oligos should be set aside for other US researchers and if available to non-US researchers for the costs of printing. Other business included that nominations for secretary were accepted and Joe Cassady, NCSU, was elected by acclamation. On Sunday, January 11 the NC1004 business meeting was held. There were extensive discussions of results with current microarrays and a potential plan for a joint analysis of data collected by the Fahrenkrug, MN, Tuggle, ISU, and Beaver, IL, labs. Additionally, members decided to have another committee to develop plans for the next set of swine arrays. A joint NRSP8/NC1004 Swine Arrays committee was selected which included Scott Fahrenkrug, MN, will chair the committee. Members: Chris Tuggle, ISU, Jon Beaver, IL, Diane Moody, Purdue, Cathy Ernst, MI and, ex-officio, Max Rothschild, ISU. The committee will address 3 issues: 1) bioinformatic needs for analyzing and jointly storing array data; 2) companies and platforms for the next generation of swine arrays; and 3) updated criteria for selecting genes and oligo design for next generation arrays (kindly provided in part by Dianne Moody).

Swine Genome Sequencing Consortium moves ahead. Several individuals from the international pig genetics community met in France in September, 2003 and again recently at PAGXII. They established the International Swine Genome Sequencing Consortium (SGSC). The goals of the SGSC are to coordinate the scientific and funding activities associated with sequencing the pig genome. The scientific strategy will include: (1) contig sequencing and the assembly of the sequences at the Baylor Human Genome Center and (2) whole genome shotgun sequencing that will be conducted at various centers around the world. All data will be in the public domain. The recent meeting at PAG centered primarily on securing funding. At present there is a need to secure a total of \$40 million, of which \$20 million must be secured by October 1. This is for (1) Contig construction and assembly at Baylor Human Genome Center (\$0 of \$20 committed). We are targeting USDA for a commitment of \$12M (similar to cattle); NIH for a commitment of \$6-8M; Private sector support of \$2-4M (pharma, pork and feed companies); and targeting special State or Federal appropriations and (2) Whole Genome Shotgun Sequencing (\$12M of \$20M committed) (Sino-Danish release of a 1X sequence; Korea NRLI, Sanger Institute, Roslin, UIUC). More recently a meeting was held at Iowa State University involving Steve Kappes and Ronnie Green from the USDA, Cathie Woteki, Dean of Agriculture and Max Rothschild, Iowa State University, Paul Sundberg, Mark Boggess and Jon Caspers from the National Pork Board and Larry Schook from University of Illinois. The meeting was to discuss a request of over 1 million dollars to the Pork Board to help provide industry support for genome sequencing at the Baylor Human Genome Center. Other requests are also in progress. Any ideas members of the community have to find the needed funding will be appreciated.

Deadlines for the 2004 NRI RFA were announced. Please go to the NRI website (www.reeusda.gov/nri/) for details. Most importantly, deadline dates have been changed and those for Animal Genomics, Animal Genome Reagent & Tool Development and Functional Genomics of Agriculturally Important Organisms are June 15, 2004.

Pig arrays can be ordered now!! Materials needed to produce a 13,000 element oligo array have been produced. Individual researchers can request 20 free arrays and later up to 50 additional ones but they will be responsible for the printing costs of the additional ones. Printing costs will be \$20 dollars a slide and will be billed directly to the researcher from the University of Minnesota facility where they will be printed. Please go to the web site: http://www.genome.iastate.edu/resources/array_request.html to place an order. Please note, to get the information on the gene list you must sign the Qiagen non-disclosure agreement (NDA). This likely requires visiting with your purchasing and or intellectual property office on your campus. Shipping will occur after you specify by email when you want the arrays.

Upcoming meetings (see: <http://www.genome.iastate.edu/community/meetings.html>)

Midwestern American Society of Animal Science Annual Meeting, March 15-17, 2001 at the Polk County Convention Center, Des Moines, Iowa. For information please contact <http://www.asas.org/midwest/2004/index.html>

British Society of Animal Science Annual Meeting, April 5-7, 2004, York University. See www.bsas.org.uk/meetings/annual.htm.

British Pig Breeders Roundtable, April 21-23, 2004, Wye UK. For details please contact Chris Haley at chris.haley@bbsrc.ac.uk

The 16th European Colloquium on Animal Cytogenetics and Gene Mapping will be held at the Jouy-en-Josas research center of the INRA July 6 - 8. For further information please see: <http://www.inra.fr/16cacgm>

American Society of Animal Science- American dairy Science –Poultry Science Association joint Meeting, July 25-29, 2004, St. Louis, MO. For details see <http://www.fass.org/2004/>.

ISAG 2004, 29th International Conference on Animal Genetics, Sept. 11-16, 2004, Surugadai Campus, Meiji University, Tokyo, Japan. For more information see <http://www2.kobe-u.ac.jp/~isag2004/>

Plant, Animal and Microbial Genome XIII, joint with the NAGRP annual meetings, Jan. 15-19, 2005, Town & Country Convention Center, San Diego, CA. Please see www.intl-pag.org/ for information.

Additional items can be found at: <http://www.agbiotechnet.com/calendar/index.asp>.

Items for *Pig Genome Update 66* can be sent to me by no later than April 15 please.

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