CHICKEN MAP 2000

Included with the hard copy version of this issue of the Poultry Genome Newsletter is the new Chicken Consensus Linkage Map poster, an expanded version of the map shown in Groenen et al., Genome Research 10:137-147 (2000). Special thanks to Martien Groenen for leading the effort to join the three major chicken linkage maps based on the Compton, East Lansing, and Wageningen populations into a single map. The Consensus Map is also available at http://www.zod.wau.nl/vf/research/chicken/frame_chicken.html, the Groenen homepage, or on our own site, http://poultry.mph.msu.edu. (Look under "Resources". You can view the map on-line or download it as a gif file. Thanks to Russell Coleman for preparing and loading our version of the map.) Additional copies of the poster will be passed out at the ISAG or WPC meetings (see below) or can be requested from the Coordinators.

PLANT & ANIMAL GENOME IX (PAG-IX) & NAGRP/NC-168

Plans already are well underway for PAG-IX (again in San Diego, Jan. 14-17, 2001 with the Poultry Workshop/NC-168 meeting beginning Saturday evening, Jan. 13). Most of the plenary speakers are invited, if not confirmed, and there will be more workshops than ever before. Many groups will be following poultry's lead and starting to meet on Saturday night, or even earlier that day. Abstracts for PAG-VIII can be viewed at the PAG website, http://www.intl-pag.org/pag. PAG-IX again will be followed directly by the Ag Microbial Genome meeting.

ISAG 2000: MINNEAPOLIS, MINNESOTA MILLENIAL MEETING

ISAG 2000, the 27th International Conference on Animal Genetics will be held July 22-26, 2000 at the Hyatt Regency in Minneapolis, Minnesota. Schedule and registration information are available at http://www.cvm.umn.edu/research/isag2000/home.htm. The fee for registration for ISAG members is $650. Grad student registration is available at $100. Hotel information is also available on the web site. An excellent group of plenary speakers has been assembled (see http://www.cvm.umn.edu/research/isag2000/scientificprogram.html).
World Poultry Congress-Poultry Science Assoc.-MD Symposium

The XXI World Poultry Congress will be held in conjunction with the Poultry Science Association meeting and the 6th International Symposium on Marek's Disease in Montreal, Canada this August. PSA will begin the evening of Friday, August 18, while the Marek's Disease Symposium will begin Saturday evening and the WPC will officially open Monday evening, August 21 and run through Thursday evening, August 24. Information can be obtained at http://www.wpc2000.org or by email to info@eventsintl.com.

WASHINGTON UPDATE: MORE HOPE FOR COMPETITIVE GRANTS

As noted last time, USDA Secretary Glickman authorized spending the funds available this year under the Initiative for Future Agriculture and Food Systems (IFAFS). This involves a new competitive grant program, one of whose priorities is agricultural genomics. Ag Genomics grants (animal, microbial, and plant) will be funded at roughly $30 million in total. IFAFS was authorized a couple of years ago for five years at $120 million/year. However, the U.S. House previously has blocked USDA from making any expenditures under the program. In the rush to finish the 2000 budget last October, that exclusion was left out of the Ag Appropriations Bill, so the Secretary has decided to spend it. It is likely that the House will try to stop further expenditures in the Program next year (although it is in the President's proposed 2001 USDA budget), so this may well be a one-time-only offer! In fact, as many of you are aware, the program went into limbo after it was announced while certain House members tried to kill it ex post facto. As of this writing, it appears that the IFAFS program will survive this assault and that the proposal due date will be May 22, 2000. For more information, see: http://www.reeusda.gov/1700/programs/IFAFS/IFAFS.htm

Some readers may be interested in the National Science Foundation announcement of an STTR Program in Agricultural and Food Biotechnology (part of their overall Biotechnology STTR Program) with an application deadline of January 4, 2001. STTR Phase I awards are for a maximum of $100,000 for up to one year. Only successful Phase I grantees can apply for Phase II grants of up to $400,000 over a total of two years. The PI of the proposal must be an employee of a small business concern and at least one investigator must be from a research institution. See: http://www.eng.nsf.gov/sbirspecs/BT/bt.htm for more information.

THE MODEL CHICKEN

NIH has established a web site on "Model Organisms for Biomedical Research" at http://www.nih.gov/science/models/, which includes access to both information and funding opportunities for both mammalian and non-mammalian models. It appears that whether the chicken falls into the "model organism" category is still under debate. Those involved in this debate are members of...
the Trans-NIH Coordinating Committee for Non-Mammalian Models (CCNMM) who are listed at http://www.nih.gov/welcome/director/CCNMM.htm, along with contact information for the NIH staff representative for the chicken, Dr. Robert W. Baughman, of NINDS, (rb175y@nih.gov). You may also access the Proposal for a Chicken Genome Project made to the CCNMM at http://www.nih.gov/science/models/nmm/appd.html.

While we're on the subject of the use of chickens as model organisms for comparative genomics, check out the commentary, "So many genomes, so little time", by Webb Miller in the February 2000 issue of Nature Biotechnology (18:148-149; http://biotech.nature.com). Miller discusses the use of what might be called ZOO-sequencing (in analogy to ZOO-blots and ZOO-PCR) by Göttgens et al. (Nature Biotech. 18:181-186, 2000), in which they sequenced the full SCL gene region from human (197 kb), mouse (86 kb), and chicken (36 kb) genomes. Comparative sequence alignment between genomes aided in the identification of new enhancer elements. Sequence analysis of the relatively compact chicken genome (3-5 fold more distant, evolutionarily, from human than those of other mammals) provided unique new clues to understanding SCL gene regulation. Miller views this as a strong argument in favor of sequencing the complete chicken genome, and, of course, we're in full agreement.

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**CHICKEN GENE PRIMERS AND MICROSATELLITE KITS**

Gene primers: (Reminder) Two sets of PCR primer pairs complementary to chicken mRNAs are still available. In each case, a likely primer pair for PCR was derived based on Genbank DNA sequence data. See the Tables entitled "Chicken Gene Primers #1 and #2" listed under "Resources" (scroll down) on our Web Page (http://poultry.mph.msu.edu). Contact: (dodgson@.msu.edu) or (hcheng@.msu.edu).

Microsatellite primers: We're now up to 647 microsatellite primer pairs made available. Information can be found on the Web Page under Resources, and requests made as noted above. As indicated in our last issue, we are now out of stock of kits #1 and #2, and have a very limited (and possibly outdated) amount of kit #3. A streamlined replacement kit that will cover the most polymorphic and evenly distributed markers in kits #1 and #2 (including all of those which are anchor markers on the Groenen et al. Consensus Map, see above) has been designed. We are trying out a new (more economical) supplier, so a test sample of this kit has been ordered, but if successful, the full replacement kit should be available in the next few months.

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**RISK ASSESSMENT: CHICKEN STOCKS ARE FALLING**

A report from the Genetic Resources Conservation Program of the U. of California, Davis on Avian Genetic Resources at Risk: An Assessment and Proposal for Conservation of Genetic Stocks in the USA and Canada has been printed. Single copies are available at no charge at http://www.grcp.ucdavis.edu. Thanks to Jacqueline Pisenti (Davis), Mary Delaney (Davis) and Bob Taylor (New Hampshire) for editing this informative and attractive report.
ON THE ROAD AGAIN. UPCOMING MEETINGS:


Poultry Science Association Annual Meeting, August 18-20, 2000, Montreal, Quebec. Info at: http://www.psa.uiuc.edu

XXI World Poultry Congress, August 20-25, 2000, Montreal Convention Centre, Montreal, Quebec. (Held in conjunction with the PSA meeting, see above, and the 6th International Marek's Disease Symposium. See http://www.wpc2000.org or email: info@eventsintl.com


THE BAC PAGE!

A few filter sets are still available for the chicken BAC library constructed at the Texas A&M BAC Center, using UCD 001 Jungle Fowl line as its DNA source, one of the two lines used in the East Lansing reference map backcross. Robot-spotted filter sets (containing about 30,000 of the present 38,000 BACs) have been obtained and will be available free while supplies last (email dodgson@msu.edu). Alternatively, filter sets can be obtained directly from the Texas A&M BAC Center (http://hbz.tamu.edu) at the cost of preparing and sending them. Once your clone of interest is identified by hybridization, individual clones can be obtained at cost from the BAC Center. We're in the process of doubling the library in size, using different restriction enzyme sites, to insure complete coverage of the genome. As noted previously, Martien Groenen's lab has also constructed a BAC library in collaboration with the Texas A&M BAC Center. This BAC library consists of nearly 50,000 clones with average inserts of about 130 kb. See the Groenen homepage at http://www.zod.wau.nl/vf/research/chicken/frame_chicken.html. If you wish to purchase or use this
library, either contact the Texas A&M BAC Center (http://hbz.tamu.edu), the Groenen site above, or the UK Human Genome Mapping Project Resource Center at http://www.hgmp.mrc.ac.uk which sells filter sets of this library.

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**PUT YOUR ITEM OF INTEREST HERE**

We're always happy to include items of general interest to the poultry genetics community in the Poultry Genome Newsletter. Please email your contributions to us at the addresses below. Please send any items by June 15 to be sure it gets into the next issue.

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