

# **POULTRY GENOME NEWSLETTER, LAST ISSUE OF THE 1900's Issue No. 4, October 1999**

## **PLANT & ANIMAL GENOME VIII (PAG-VIII) & NAGRP/NC-168-2000**

### **Register Soon to Save \$100!!**

Most of you will have received registration information for PAG-VIII, but, if not, it can be viewed by clicking on the PAG-VIII title at the conference Web site, <http://www.intl-pag.org/>. Abstracts can be submitted on-line at this address: the abstract deadline is Oct. 15. Registration can also be completed on-line or using a form obtained at the site. The registration fee is \$375 for those from non-profit institutions, if postmarked by Nov. 5; \$475, thereafter (\$100 more for participants from industry.) As usual, NC-168 gets an early start on Saturday, January 8 with a 6:00-8:30 p.m. session, continuing on Sunday until about 6:00-7:00 p.m.

Numerous other workshops will run concurrently on Sunday, with the PAG talks and workshops running Monday through Wednesday, culminating with Wednesday night's banquet. For those interested in infectious diseases, PAG-VIII will be followed directly by the first Ag Microbial Genome meeting; see the same web site for details. Limited travel support for NAGRP members is available: contact me at [dodgson@msu.edu](mailto:dodgson@msu.edu) asap, if interested. Graduate students may compete for a Neal Jorgensen Travel Award of \$300 plus complementary registration; see <http://www.intl-pag.org/> or contact me before Oct. 15.

## **ISAG 2000: MINNEAPOLIS, MINNESOTA MILLENIAL MEETING**

**ISAG 2000, the 27<sup>th</sup> International Conference on Animal Genetics will be held July 22-26, 2000 at the Hyatt Regency in Minneapolis, Minnesota. The schedule and registration information are available at <http://www.cvm.umn.edu/research/isag2000/home.htm>. The fee for early registration for ISAG members is \$400 before Jan. 8, \$500 between Jan. 8 and March 31, and \$750 thereafter. Grad student registration is available at \$100.**

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## **POULTRY GENOME HOMEPAGE GETS NEW WEBMASTER**

**Russell Coleman ([colemara@msu.edu](mailto:colemara@msu.edu)) has taken over as Webmaster for the Poultry Genome Mapping Homepage (<http://poultry.mph.msu.edu>) from out-going (and graduated) Neil Sarkar. Russell is doing so on a volunteer basis to enhance and demonstrate his growing informatics training, and we're very grateful for his help. Russell already has a new, streamlined version of the Homepage in testing, and we hope to have that up and running soon. Feel free to forward any suggestions to Russell at the address above or to either of the Coordinators ([dodgson@msu.edu](mailto:dodgson@msu.edu) or [hcheng@msu.edu](mailto:hcheng@msu.edu)).**

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## **WASHINGTON UPDATE: NEW HOPE FOR COMPETITIVE GRANTS**

**As most folks know, the Federal Government is presently working temporarily via a "Continuing Resolution" while Congress and the Administration try to work out details of the budget that was supposed to be passed by October 1. If and when that occurs, there is hope that the USDA National Research Initiative-Competitive Grants Program (NRI) budget will be approved at last year's \$119M level. This is much below the**

President's initial request of \$200M, but \$14M above the reduced budget initially included in the House version of the Ag Appropriations Bill. The final outcome for next year remains uncertain.

Meanwhile, the announcement of the 2000 USDA NRI Grants Program has been posted at <http://www.reeusda.gov/nri/>, and the deadline for the Animal Genome and Genetic Mechanisms panel is Feb. 15, 2000. Poultry geneticists are strongly encouraged to apply!! Note that the Animal Genome Basic Reagents and Tools special program is included again in this year's program. (Last year, this was a last minute add-on due to the unanticipated late increase in the NRI budget.) This program accepts proposals up to \$1 million in total costs that will provide critical shared animal genome reagents to facilitate research progress in this area. Five such grants were awarded this past year involving resources such as new microsatellites, BAC libraries, physical and comparative maps, and EST (expressed sequence tags = sequenced cDNA library sets) banks. The grantees recently met in Washington so that the NRI could review their plans and provide consultation. The NRI Program officials (e.g., Chief Scientist, Michael Roberts and his soon-to-be successor) will monitor the progress of these programs carefully and insure the public availability of the resources generated.

Colin Scanes and Caird Rexroad organized a workshop at the USDA on Sept. 24, entitled "Towards Excellence in Agricultural Genomics". Leaders in both plant and animal genomics from CSREES, ARS, NSF, and industry attended and presented their perspectives. Jim Womack gave an excellent overview of the history and present state of livestock genomics. Mary Clutter of NSF outlined their Plant Genome Program, which recently awarded 16 new grants for a total of \$50M in its second round of competition. They hope to reach a funding level of \$60M next year, if Congress can be persuaded. Mark Trusheim of Monsanto presented his company's view that there will be an enormous expansion in demand for high quality food protein in the developing world market, especially in Asia and Latin America. He estimated that industry as a whole is spending \$500M to \$1000M on agri-genomics, mostly plant genomics.

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## CONSENSUS MAP v2.0: SOON TO COME!!

As noted last time, Martien Groenen has completed the task of joining the three major chicken linkage maps based on the Compton, East Lansing, and Wageningen populations into a single Consensus Map, now containing a total of 1889 markers on 50 linkage groups. It is becoming increasingly complex to meld the different population structures and marker types used, but Martien has developed an informative graphic presentation that updates our last Consensus Map (circa 1996). The new Consensus Map has been submitted for publication and it soon should be available at [http://www.zod.wau.nl/vf/research/chicken/frame\\_chicken.html](http://www.zod.wau.nl/vf/research/chicken/frame_chicken.html), the Groenen lab homepage, or through links from our own site, <http://poultry.mph.msu.edu>.

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## BAC LIBRARY FILTERS STILL AVAILABLE, WHILE THEY LAST!!

Reminder: 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 have been obtained and will be available free while supplies last (email me at [dodgson@msu.edu](mailto: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 (about \$400 per filter set with two spots of each clone per set). Once your clone of interest is identified by hybridization, individual clones can be obtained at cost from the BAC Center. If you'd like a complete replica of the library for pooling or other purposes, this can also be ordered from the BAC Center at a cost of about \$4000 in the U.S. (about twice this outside the U.S.) Again, contact the Center if interested: <http://hbz.tamu.edu>.

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 (about 5X coverage) in the HindIII site of pECBAC1. See the Groenen homepage at [http://www.zod.wau.nl/vf/research/chicken/frame\\_chicken.html](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>) or **R. Crooijmans** at [richard.crooijmans@alg.vf.wau.nl](mailto:richard.crooijmans@alg.vf.wau.nl).

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## CHICKEN GENE PRIMERS AND MICROSATELLITE KITS

**Gene primers:** (Reminder) Two sets of PCR primer pairs complementary to chicken genes are still available. In each case, a likely primer pair for PCR was derived using primer optimization software based on Genbank DNA sequence data. See the Tables entitled "**Chicken Gene Primers #1 and #2**" listed under "Resources" on our Web Page (<http://poultry.mph.msu.edu>). None of these primers are fluorescently labeled. Due to the high cost of synthesis, we are not able to provide the whole kits of 200 or 100 primer pairs, respectively. However, requests for primer pairs for one or several specific genes (up to 20 pairs at a time) will be filled while supplies last. Contact: ([dodgson@msu.edu](mailto:dodgson@msu.edu)) or ([hcheng@msu.edu](mailto:hcheng@msu.edu)).

**Microsatellite primers:** With the recent addition of Kit #6, we are now up to 647 microsatellite primer pairs made available. Information can be found and requests made as noted in the previous paragraph. (Info on the latest 35 primer pairs in Kit #6 will be posted on the homepage shortly.) As noted last time, we are very low on primer pairs in kit #1, and their dye labels are probably starting to degrade with age, anyway. At this point, we don't intend to re-synthesize Kit #1. If you have a special need for this kit, please let us know as soon as possible.

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## CYTOGENETICISTS HONOR BOB SHOFFNER

The 11<sup>th</sup> North American Colloquium on Domestic Animal Cytogenetics and Gene Mapping was held at the U. of Minnesota on June 14-18. The meeting was dedicated in

honor of **Dr. Robert Shoffner**, who is well known to many of our readers for his work on poultry genetics and cytogenetics. About 80 scientists from 20 different countries attended. **Congratulations to Bob and to meeting organizer and host, Abel Ponce de Leon.**

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### WEBSITE OF NOTE: HAPPY BIRTHDAY

Keygene N.V., developer of AFLP mapping and a leading company in plant genome mapping celebrated the 10<sup>th</sup> anniversary of their founding by opening their new website: <http://www.keygene.com>. As noted previously, those wishing to apply AFLP to animal genomes should buy the Perkin Elmer kit designed for plant genome AFLP (<http://www2.perkin-elmer.com/ag/775601/775601.html>) and then should contact [keygene@euronet.nl](mailto:keygene@euronet.nl) or use the URL above. Keygene will provide you the additional primers needed for animal AFLP mapping for a nominal fee (\$100 US at last report).

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### CHICKEN JOKE: STOP ME IF YOU'VE HEARD THIS ONE

Scientists at NASA built a gun specifically to launch dead chickens at the windshields of airliners, military jets and the space shuttle, all traveling at a maximum velocity. The idea was to simulate the frequent incidents of collisions with airborne fowl to test the strength of the windshields. British engineers heard about the gun and were eager to test it on the windshields of their new high speed trains. Arrangements were made, and a gun was sent to the British engineers. When the gun was fired, engineers stood shocked as the chicken hurtled out of the barrel, crashed into the shatterproof shield, smashed it to smithereens, blasted through the control console, snapped the engineer's backrest in two and embedded itself in the back wall of the cabin, like an arrow shot from a bow. The horrified Brits sent NASA the disastrous results of the experiment, along with the designs of the windshield, and begged the U.S. scientists for suggestions. NASA responded with a one-line memo: "Thaw the chicken."

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### ON THE ROAD AGAIN. UPCOMING MEETINGS:

Physiological Genomics and Rat Models, Dec. 9-12, 1999, Cold Spring Harbor Laboratory, N.Y. Contact info: <http://www.cshl.org/meetings/>

Plant and Animal Genome VIII, joint with NC-168 and NAGRP annual meetings, Jan. 8-13, 2000, Town & Country Convention Center, San Diego, CA. More information on page 1 of newsletter and/or see <http://www.intl-pag.org>. Followed immediately by Ag Microbial Genome I, Jan. 13-14, same location. See <http://www.ag-microbial.org/agm/>

International Society of Animal Genetics (ISAG 2000), Hyatt Regency Hotel, Minneapolis, MN, July 22-26, 2000. See <http://www.cvm.umn.edu/research/isag2000/home.htm>

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](mailto:info@eventsintl.com) .

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## **PUT YOUR ITEM OF INTEREST HERE**

We are 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 December 15 to be sure it gets into the next issue.

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