

Bioinformatics/Database Update

June, 2007

Bovine genome annotation Geneboree workshop

On May 23-25, 2007, the Sanger Institute in Hinxton, UK, hosted a Geneboree to facilitate annotation of the bovine genome. Nearly 30 scientists and students from Spain, Italy, Denmark, UK, Germany, France and the US attended the workshop. The workshop focused on using Otterlace, a Sanger genome annotation tool, to annotate cattle genes. With the invaluable help of Sanger's experienced staff, the participants annotated over 100 genes during the workshop. A plan was outlined for following up an organized annotation effort. Thanks go out to Jan Aerts, Roslin Institute, for organizing the workshop and EADGENE for funding travel expenses.

Upgrades to the AnGenMap member directory

As some have noticed, the AnGenMap member directory was inactive for a period of time. A new software suite was created to manage the AnGenMap member's directory (<u>http://www.animalgenome.org/cgi-bin/angenmap/angendir</u>). With this web-based software, users can edit their profiles, manage the subscriptions/unsubscriptions, change their primary and alternative email addresses, etc. This change was necessary to insure that the attacks to the system, which have been steadily increasing, remain unsuccessful. Thanks go out to Zhiliang for his diligent efforts in this regard.

Additional information has been added to Animal QTLdb

New data have been added to the QTLdb (<u>http://www.animalgenome.org/QTLdb</u>). These include mapping of Affymetrix array elements to QTL maps for pigs and cattle, Oligo array elements to QTL maps for pigs and cattle, and SNPs stored in Genbank to respective chicken, pigs and cattle QTL maps. If there is any additional information that you would like added, please contact us.

Updates to the sheep web site

A new sheep genomics web site has been developed and released, listing all sheep genome research related resources, links and databases (<u>http://www.animalgenome.org/sheep/</u>). Suggestions to improve this web resource for sheep genomics are welcomed. Please email suggestions to Noelle Cockett (fanoelle@cc.usu.edu) or Zhiliang Hu (zhu@iastate.edu).

Chicken added to the NIH Model Organism web site

It was recently announced that chicken is now represented on the NIH Model Organisms for Biomedical Research web site. To view the chicken pages, go to <u>http://www.nih.gov/science/models/</u> and click on the "Gallus" link at the bottom of the listing for Non-Mammalian Models. The Gallus pages were assembled using information provided by members of the bird research community. Please consider these as first drafts, and send suggestions for adding/changing links or other information to Parker Antin (<u>pba@email.arizona.edu</u>). NIH will permit periodic modifications to the site. Since other model organism sites focus on a single species or genus, for now NIH personnel prefer the use the name "Gallus (chicken)". However, links to zebra finch are already included, and it is intended that this site will represent and support genomics related research for all bird species. (Kindly provided by Parker Antin).

Minimal Information for QTLs and Association Studies (MIQAS)

We are working with Dave Burt, Andy Law, Wilfred Carre and Jan Aerts from the Roslin Institute to develop a minimal standard for publication for QTL and gene association studies. See <u>http://miqas.sourceforge.net/</u> for additional information about the concept. We hope to submit a manuscript for publication on the topic shortly. Please send suggestions on this topic to James Reecy (jreecy@iastate.edu).

Animal Trait Ontology (ATO) development continues

In July, we will meet with representatives from the Rat Genome Database and Mouse Genome Informatics to begin to integrate our individual species trait ontologies into a unified animal trait ontology. It is our hope that this will help facilitate the transfer of information across species. We have also begun to collaborate with European researchers to expand the animal trait ontology. If you knowledgeable about a particular set of traits and are interested in participating in the development of the animal trait ontology, please contact James Reecy (jreecy@iastate.edu).

Upcoming meetings:

http://www.animalgenome.org/share/mtg_bioi.html

Annotation training session for the Bovine Genome Sequencing Consortium at Iowa State University In collaboration with Dr. Chris Elsik, TexasA&M, we will be hosting an annotation training session for Bovine Genome Sequencing Consortium members Aug. 7-9th, 2007. Instruction will be provided on retrieving data from the Bovine Genome Database (BovineGenome.org), annotating bovine gene models using the Apollo annotation editor, and submitting your annotations to Bovine Genome Database. If you are interested in attending, please contact James Reecy (jreecy@iastate.edu) for additional information.

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NRSP-8 Database Coordination Team

James Reecy – Cattle, Sheep, Horse, Aquaculture Sue Lamont – Poultry Max Rothschild – Swine Chris Tuggle – Swine Zhiliang Hu – Project Development

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