

## **Brief Summary of the Genome Database Coordination Program for 2003**

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Coordination structure: Iowa State University faculty help support the national genome database coordination effort as part of Iowa State University's contribution. Dr. Zhiliang Hu has accepted a full time associate scientist position to develop databases.

Database Activities: Currently, we are in the process of replacing the old server at Iowa State University with a new server. We have been investigating a number of options in an attempt to design a system that will exceed the anticipated load. For example, last year over 113,500 individuals who made more than 1.8 million hits used the Pig genome database. With the consolidation of all of the livestock databases the traffic load is anticipated to increase dramatically. It is anticipated that the new server will be operational on or about the middle of February. With the consolidation of the livestock databases, considerable updating and a great deal of new information have been added to the web site <http://www.genome.iastate.edu/> and <http://www.genome.iastate.edu/bioinfo/>. We will continue to work with each of the species coordinators to further enhance the database. Suggestions are always welcome.

Facilitation Efforts: Over the past two months, efforts have been initiated with other bioinformatic establishments in an effort to discuss collaborative efforts for genome annotation. A collaborative effort with USDA/ARS, Lubbock Texas, has been initiated to develop an artificial intelligence pipeline to annotate livestock ESTs. Initially, this effort will focus on pig and cattle ESTs; however, it is our intention to expand this to all livestock species within a years time. In addition, we have initiated a working relationship with Jim Ostell at NCBI in an attempt to bring NCBI's tremendous resources to bear on livestock species. We look forward to an ever expanding interaction with Dr. Ostell. For instance, some our discussions focused on their willingness to host livestock genetic maps (Linkage, RH, cytogenetic). In addition, we discussed development of a training course, whereby livestock personnel interested in bioinformatic raining would actually travel to NCBI, Bethesda, Maryland for advanced training. Tentatively, NCBI is looking at fall 2004 for an initial training session.

Future Activities: With the advent of livestock genome sequencing projects, continued development and expansion of livestock databases will become an ever-increasing effort. In addition, constructive suggestions to help this coordination and facilitation program are greatly appreciated.