

INTERNATIONAL RESEACH EFFORT TO MAP SHEEP GENOME

WASHINGTON, May 16, 2005 – An international research effort, funded by USDA’s Cooperative State Research, Education and Extension Service (CSREES) and others, will begin activities that will lay the foundation for mapping the sheep genome. The International Sheep Genome Sequencing Consortium expects to complete an initial map by March 31, 2006, but CSREES funding continues to June 2008 for analysis of the map.

“Mapping the sheep genome will lead to advances in food and fiber production and identification of important traits in animal health and disease resistance,” said Undersecretary, Research, Education and Economics Dr. Joseph Jen . “International collaborations like these are vital for promoting worldwide use and understanding of important scientific information.”

The International Sheep Genome Sequencing Consortium includes Utah State University (the lead institution), The Institute for Genomic Research, USDA’s Agricultural Research Service Meat Animal Research Center, the UK’s Genesis Faraday, New Zealand’s AgResearch, and three Australian groups: Commonwealth Scientific and Industrial Research Organization Livestock Industries Division, Meat and Livestock Australia, and Australian Wool Innovation.

Due to the similarities between livestock genomes with those of humans, economically important sheep genes and traits will be more easily identified. This allows for better leveraging of the large public investment made in the Human Genome Project, which was completed in 2003.

CSREES awarded two National Research Initiative (NRI) grants to Dr. Noelle Cockett, Interim Provost at Utah State University, which have been instrumental in leading this international effort. In 2005, Dr. Cockett received a \$1 million grant to develop a high resolution physical map for the sheep genome. She also received a \$395,000 grant in 2002 for the development of a sheep genome radiation hybrid map.

The beef genome sequencing effort currently underway, also supported by an international consortium with major support from USDA/CSREES and the National Institutes of Health, will provide a comparison of the sheep physical map and will be extremely important in identifying and positioning genes on the sheep map.

The NRI program is the largest peer reviewed, competitive grants program in CSREES, and its purpose is to support research, extension and education grants that address key problems of national, regional and multi-state importance in sustaining all components of agriculture. President Bush has proposed in his fiscal year 2006 budget to advance cutting edge agricultural research in genomics by funding the NRI at \$250 million, an increase of 40 percent over 2005. ARS and CSREES are coordinating the

funding of genomics research initiatives funded by other federal agencies, like the National Institutes of Health, the National Science Foundation and the Department of Energy, by facilitating an interagency working group that is chaired by Dr. Joseph Jen.

United Kingdom's Genesis Faraday and Meat and Livestock Australia also provided funding for this project.

CSREES advances knowledge for agriculture, the environment, human health and well-being, and communities by supporting research, education and extension programs in the Land-Grant University System and other partner organizations. For more information visit the CSREES Web site at <http://www.csrees.usda.gov>.

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