

# Animal Genomics

Animal Genomics

## V(A). Planned Program (Summary)

### 1. Name of the Planned Program

Animal Genomics

## V(B). Program Knowledge Area(s)

### 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
303	Genetic Improvement of Animals	0%		50%	
304	Animal Genome	0%		50%	
<b>Total</b>		0%		100%	

## V(C). Planned Program (Inputs)

### 1. Actual amount of professional FTE/SYs expended this Program

Year: 2007	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	0.2	0.0	5.0	0.0
<b>Actual</b>	0.0	0.0	2.0	0.0

### 2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	194576	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	194576	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	523352	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

Activities include continuing to sequence the porcine genome, developing statistical and bioinformatics tools that provide accurate and precise results, thus supporting the effective application of genomics and proteomics information to the improvement of U.S. agriculture, the completion of a diagnostic test for Tibial Hemimelia that has been commercially licensed and performed on more than 16,000 animals since late 2005, work to identify genetic regions that influence the production and quality of pork, and research to establish which genes in the bovine mammary gland are involved in milk fat synthesis regulation to improve nutrient utilization and profitability of dairy farming. The CSREES Special Research Grant focused on sequencing the porcine genome was funded by reallocated Hatch dollars in FY 2007.

### 2. Brief description of the target audience

The target audience consists of the international animal genomics community, with work being done in several U.S. sites [Nevada, Illinois, Nebraska, Iowa] and several international sites [United Kingdom, France, Scotland].

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

**Target for the number of persons (contacts) reached through direct and indirect contact methods**

	<b>Direct Contacts Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
<b>Plan</b>	500	5000	0	0
2007	0	0	0	0

**2. Number of Patent Applications Submitted (Standard Research Output)**

**Patent Applications Submitted**

**Year Target**

**Plan: 0**

**2007: 0**

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Plan</b>			
2007	0	6	6

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

Number of research publications.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2007	49	6

**Output #2**

**Output Measure**

Number of completed research projects.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2007	8	4

**V(G). State Defined Outcomes**

<b>O No.</b>	<b>Outcome Name</b>
1	Percent of sequence in 3x coverage of the Porcine Genome and deposit it in a public database

**Outcome #1**

**1. Outcome Measures**

*Not reporting on this Outcome for this Annual Report*

**2. Associated Institution Types**

**3a. Outcome Type:**

**3b. Quantitative Outcome**

<b>Year</b>	<b>Quantitative Target</b>	<b>Actual</b>
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**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
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**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

Other (Changes In Instrumentation)

**Brief Explanation**

Sequencing has been delayed in part because The Sanger Institute is retooling and increasing instrumentation and the investigators have chosen to continue to utilize the original equipment because of their high level of confidence in it. The project has been extended to 2009.

**V(I). Planned Program (Evaluation Studies and Data Collection)**

**1. Evaluation Studies Planned**

Other (Please see explanation below.)

**Evaluation Results**

Sequencing data will be made available to the research community, allowing them to evaluate and build on our results.

**Key Items of Evaluation**