



FACT SHEET

ANIMAL BREEDING & FUNCTIONAL ANNOTATION OF GENOMES

Genetic selection is key to continuously improving the agricultural commodities that provide the nation's food supply as the demand for dietary protein in the United States and around the world increases. The Animal Breeding & Functional Annotation of Genomes program funds research that will do just that – identify methods to improve and increase animal production while maintaining animal health and welfare. Research in animal breeding and genetics is vital to the U.S. as it underpins the nation's potential to provide food to an ever-growing population.

The Animal Breeding & Functional Annotation of Genomes program (A1201) provides funding to establish or expand research to enhance animal food production throughout the U.S. Refer to the report [“Genome to Phenome: Improving Animal Health, Production, and Well-Being: A new USDA Blueprint for Animal Genome Research 2018 – 2027”](#) to learn what U.S. stakeholders have outlined as research priorities for funding to improve U.S. food animal agriculture production.

IMPORTANT FACTS

- In FY 2021, A1201 received 32 applications; \$6.2 million was awarded to 9 applications
- Out of the 9 applications awarded in 2021, 6 were standard awards, 2 were new investigator awards, and 1 award was to a strengthening institution.

APPLICANT ELIGIBILITY

- Colleges or universities (including junior colleges offering associate degrees or higher); State agricultural experiment stations;
- National laboratories; Private organizations or corporations; Federal agencies;
- Individuals who are U.S. citizens, nationals, or permanent residents;
- Other research institutions and organizations;
- Eligible new investigators may apply for standard grants, seed grants, and new investigator standard grants

APPLICANT DEADLINES

- FY 2022: Thursday, August 11, 2022 (5:00 p.m. Eastern Time)
- Conference Grants: submitted after letter of intent decision response and a minimum of 150 days before the conference begins

NIFA invests in and advances agricultural research, education, and extension and seeks to make transformative discoveries that solve societal challenges.



PROGRAM AREA PRIORITIES

Some research topics that welcome applications include (please see RFA for further information):

- Novel quantitative genetic methods including selection theory and modeling; implementing selection methods that use a systems approach combining of genomics, epigenomics, functional genomics, and microbiome data for simultaneous improvement of multiple traits.
- Development of national and regional breeding strategies to address biotic and abiotic stresses (including climate variability), genetic diversity, germplasm storage and characterization, crossbreeding or genome modifications.
- Development of new phenotypes for improving selection criteria and/or development of high-throughput methods for on-farm recording of traits and strategies for their use in breeding programs.

FUNDED PROJECTS

- Previously funded projects can be found using the NIFA Data Gateway and the “Search Projects” box at: <https://nifa.usda.gov/data>

APPLYING FOR FUNDING

- Only electronic applications submitted via Grants.gov will be accepted. For instructions on how to apply visit <https://nifa.usda.gov/funding-opportunity/agriculture-and-food-research-initiative-foundational-applied-science-program>.

PROGRAM CONTACTS

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