

2019 Research Grants

Below are grant funded projects in the Oklahoma State University Department of Animal and Food Sciences for 2019.

ABI development: A genomic data mining resource to accelerate genome-to-phenome discovery in domesticated animals.

Researcher: Darren Hagen* (PI).

Grant Funding: University of Missouri. 8/15/18 - 7/31/22. \$64,040.

Antimicrobial ice based meat grinder sanitation process optimization.

Researcher: Ravi Jadeja* (PI).

Grant Funding: TBDP/OSU. 11/1/17 - 11/30/19. \$5,500.

ARS meat quality.

Researcher: Deb VanOverbeke* (PI).

Grant Funding: USDA ARS El Reno. 9/1/14 - 8/31/19. \$60,000.

Back to Basics: Expanding best management practice adoption in small and mid-sized beef enterprises.

Researcher: David Lalman* (PI).

Grant Funding: USDA. 5/1/17 - 4/30/21. \$109,025.

Beef cattle selection and management for adaptation to drought.

Researcher: Udaya DeSilva* (PI).

Grant Funding: USDA. 5/1/14 - 4/30/19. \$1,000,000.

Comparing enzyme efficiency on total tract starch digestibility.

Researchers: Chris Richards* (PI), Ryan Reuter* (Co-PI), and Blake Wilson* (Co-PI).

Grant Funding: Dupont/ Danisco Animal Health. 1/4/18 - 8/31/20. \$124,916.

Customized food-safety intervention strategies for hard-to-reach producers.

Researcher: Ravi Jadeja* (PI).

Grant Funding: Texas Organic Farmers and Growers Association. 10/1/16 - 8/31/19. \$52,709.

Dietary effects on sow productivity to three parties.

Researcher: Janeen Salak-Johnson* (PI).

Grant Funding: USDA. 2/9/18 - 3/30/19. \$23,696.

Effect of heat stress on broiler chickens medicated with different concentrations of nicarbazin.

Researchers: Glenn Zhang* (PI) and Adel Pezeshki* (Co-PI).

Grant Funding: Elanco Animal Health. 11/17/17 - 5/16/20. \$52,937.

Effects of a Herbanimal supplement as an alternative to antibiotic use in broiler chickens' performance, carcass composition, and immune status.

Researchers: Ali Beker[§] (PI), Adel Pezeshki* (Co-PI), Julia Sutton[¶], and Jacob Burch-Konda[¶].

Grant Funding: Herbanimals Supplements. 8/1/17 - 12/31/19. \$23,000.

Effects of zinc source and concentration on growth performance of nursery pigs.

Researchers: Scott Carter* (PI), Pompim Aparachita[¶], Afton Sawyer[¶], and Jared Harshman[¶].

Grant Funding: Zinpro Corp. 1/1/19 - 12/31/19. \$30,229.

Endocrine adaptation of beef cattle during long-term water restriction.

Researchers: Blake Wilson* (PI), Kelsey Bruno[¶], and Larissa Kozlowski[¶].

Grant Funding: Texas Cattle Feeders Association. 12/17/18 - 6/16/20. \$5,000.

Evaluation of implant strategies in extended grazing periods.

Researcher: Ryan Reuter* (PI).

Grant Funding: Elanco Animal Health. 10/1/18 - 2/28/20. \$86,400.

Evaluation of mintrex beef chelated trace minerals on clinical signs, immune response variables, and mineral balance in calves following natural exposure to bovine viral diarrhea virus type 1b and subsequent Mannheimia haemolytica infection.

Researcher: Chris Richards* (PI).

Grant Funding: NOVUS International, Inc. 12/1/12 - Completion. \$31,591.40.

Fecal microbiota transplantation to enhance production efficiency.

Researchers: Kelsy Robinson^g (PI) and Glenn Zhang*.

Grant Funding: USDA. 4/1/18 - 3/31/20. \$95,000.

Food and Agricultural Sciences National Needs Graduate Fellowship Grant Program.

Researchers: Dani Bellmer (PI), Peter Muriana* (Co-PI), Divya Jaroni* (Co-PI), Ravi Jadeja* (Co-PI), and William McGlynn (Co-PI).

Grant Funding: USDA-AFRI. 8/1/17 - 7/31/21. \$41,000.

Gastric ulcers.

Researchers: Steven Cooper* (PI).

Grant Funding: Mannsville Ag Center. 3/01/19 - Completion. \$10,661.70.

Improving the efficiency of antimicrobial use in feedlot calves and refining treatment protocols for undifferentiated fever using a chute-side diagnostic tool.

Researchers: Blake Wilson* (PI), Paul Beck*, Ryan Reuter*, Colton Robison^g, and Andrea Northup-Warner^g, Kaitlyn Pierce^g, and Nicole Stevenson^u.

Grant Funding: Industry Funding. 9/1/18 - 8/31/19. \$56,918.

Improving the growth performance of nursery pigs with low protein diets supplemented with both crystalline and branched chain amino acids.

Researchers: Adel Pezeshki* (PI), Ranjith Ramanathan*, Ed Lucas, Prasanth Chelikani, Scott Carter*, Mohammad Habibi^g, Monique Randhawa^u, Tanner Strunk^u, Chelsea Shelton^u, and Autumn Gregg^u.

Grant Funding: NIFA. 1/1/18 - 12/31/19. \$150,000.

Interaction of dietary Herbanimal supplement with protein to improve the performance and health of nursery pigs.

Researchers: Adel Pezeshki* (PI), Cedrick Shili^g, Tanner Strunk^u, Chelsea Shelton^u, and Autumn Gregg^u.

Grant Funding: Herbanimals Supplements. 4/1/18 - 9/30/19. \$17,327.

Meat science – Graduate student research assistantship.

Researcher: Deb VanOverbeke* (PI).

Grant Funding: Oklahoma Beef Council. 10/1/18 - 9/30/19. \$15,000.

Multisorb.

Researcher: Deb VanOverbeke* (PI).

Grant Funding: Multisorb Technologies, Inc. 3/1/15 - 2/28/20. \$389,435.

Natural 'green label' fermentates from lactic acid bacteria to inhibit Listeria monocytogenes and Clostridium sporogenes (spores) on low- and high-fat beef hotdogs.

Researchers: Peter Muriana* (PI), Dennis Pletcher^g, and Arjun Bhusal^g.

Grant Funding: Foundation for Meat and Poultry Research and Education. 4/01/18 - 9/30/19. \$32,711.

Novel non-antibiotic approaches for mitigation of antimicrobial resistance in poultry.

Researchers: Glenn Zhang* (PI), J. Lin, Q. Zhong, T. Tabler, and W. Zhai.

Grant Funding: University of Tennessee. 1/15/18 - 1/14/21. \$290,419.

Packaging to improve appearance of dark-cutting beef.

Researchers: Ranjith Ramanathan* (PI), Gretchen Mafi*, Steve Hartson, Deb VanOverbeke*, Ravi Jadeja*, Morgan Denzer^g, Frank Kiyimba^g, Thiago Belem^g, and Emmy Bechtold^u.

Grant Funding: OCAST. 8/1/18 – 7/31/19. \$45,000.

Performance and profitability of long-acting Eprinomectin (Long Range) in stocker steers grazing wheat pasture.

Researcher: Ryan Reuter* (PI).

Grant Funding: Merial, LTD. 5/1/17 - 9/30/19. \$168,009.

Recovery of orally-dosed Priproxyfen from cattle manure.

Researcher: Ryan Reuter* (PI).

Grant Funding: Mclaughlin Gormley King. 10/1/18 – 2/29/19. \$24,894.

Resilience and vulnerability of beef cattle production in the Southern Great Plains under changing climate, land use, and markets.

Researcher: David Lalman* (PI).

Grant Funding: KSU (USDA Climate Change). 8/1/14 - 7/31/19. \$345,110.

Resilience and vulnerability of beef cattle production in the Southern Great Plains under changing climate, land use, and markets.

Researcher: Ryan Reuter* (PI).

Grant Funding: KSU (USDA Climate Change). 8/1/14 - 7/31/19. \$134,939.48.

Role of metmyoglobin reducing activity in beef color.

Researchers: Ranjith Ramanathan* (PI) and Laura Yoder [Ⓔ].

Grant Funding: USDA. 8/1/17 – 7/31/19. \$149,980.

Screening and evaluation of the OSU/FAPC culture collection and new animal isolates (FAPC slaughter) to identify probiotic cultures of value.

Researchers: Peter Muriana* (PI), Caitlin Karolenko [Ⓔ], and Arjun Bhusal [Ⓔ].

Grant Funding: Office of Technology and Business Development, OSU. 5/1/18-5/1/20. \$30,000.

Seahorse XFp Oxygen analyzer to enhance mitochondrial research capabilities in meat quality studies.

Researchers: Ranjith Ramanathan* (PI), Adel Pezeshki* (Co-PI), Scott Carter* (Co-PI), Gretchen Mafi* (Co-PI), David Lalman* (Co-PI), Chris Richards* (Co-PI), and Deb VanOverbeke* (Co-PI).

Grant Funding: USDA/AFRI. 1/1/18 - 1/1/19. \$22,832.

Short pilot trial for the intake of free-choice mineral by grazing pasture cattle.

Researcher: Paul Beck* (PI).

Grant Funding: Pharmgate. 10/1/18 - 9/30/19. \$21,268.

Sustainable beef-forage systems for the Southern Plains.

Researcher: Ryan Reuter* (PI).

Grant Funding: USDA ARS. 8/1/15 - 7/30/20. \$73,621.

Sustaining beef production in the Southern Plains through managing greenhouse gas emissions by grazing cattle.

Researcher: Ryan Reuter* (PI).

Grant Funding: USDA ARS. 9/1/15 - 7/31/20. \$77,685.

Updating and upgrading the Oklahoma State University Animal Nutrition and Behavior Laboratories.

Researchers: Andrew Foote* (PI), Paul Beck*, Scott, Cater*, Laura Goodman, Janeen Salak-Johnson*, Dave Lalman*, Adel Pezeshki*, Ryan Reuter*, Alex Rocateli, and Blake Wilson*.

Grant Funding: OSU Vice President for Research. 3/20/19 – 6/20/20. \$232,680.

Use of a bovine overgrowth syndrome to characterize the molecular etiology of BWS.

Researcher: Darren Hagen* (PI).

Grant Funding: University of Missouri. 3/1/18 – 4/29/21. \$21,507.

Validation of Decon7 against Pseudomonas aeruginosa and Staphylococcus aureus biofilms.

Researcher: Peter Muriana* (PI).

Grant Funding: Decon7 Systems. 8/1/18 – 7/31/20. \$30,000.

Whole-chain traceability to improve food safety: Melons.

Researcher: Ravi Jadeja* (PI).

Grant Funding: ODAFF. 1/9/17 - 9/29/19. \$21,076.