

FUNDED RESEARCH - 2011

<u>Category</u>	<u>Project Title</u>	<u>ID#</u>	<u>Investigator</u>	<u>Organization</u>
Animal Welfare	Protecting low ranking sows in group-housing systems	11-044	Li, Yuzhi	Regents of the University of Minnesota
Animal Welfare	Effects of mixed and uniform parity groupings on feeding behaviour, welfare and productivity of sows in ESF housing	11-067	Gonyou, Harold W.	Prairie Swine Centre, Inc.
Animal Welfare	Establishing Bedding and Boarding Requirements for Finisher Pigs Through Scientific Validation - Macro-study (Year 2 - 10-176)	11-181	McGlone, John J.	Texas Tech University
Animal Welfare	Systematic Literature Review and Needs Assessment of Housing Systems for Lactating Sows and Their Litters	11-182	Parsons, Thomas	University of Pennsylvania
Antimicrobial Use & Resistance	Influence of on-site manure storage and land application strategy on the fate and transport of antimicrobials and antimicrobial resistance genes in the environment	11-018	Bartelt-Hunt, Shannon	University of Nebraska-Lincoln
Antimicrobial Use & Resistance	Critical appraisal of evidence that low-dose, long term (growth promotion) antimicrobial use augments public health risks from antimicrobial resistant organisms	11-024	Davies, Peter	Regents of the University of Minnesota
Antimicrobial Use & Resistance	Monitoring of Antimicrobial Resistance in Food Animal Production: Partnership between National Antimicrobial resistance Monitoring System (NARMS) and Academia	11-175	Gebreyes, Wondwossen A.	The Ohio State University
Environment	Microbial Community analysis to identify risk factors in manure foaming	11-039	Gates, Richard S.	University of Illinois
Environment	Evaluating nutrient (nitrogen and ortho-phosphate) export with subsurface drainage water from manure applied sub-watersheds planted to soybeans	11-085	Arora, Kapil	Iowa State University
Environment	Integration of GHG Emissions and Tradeoff Cost Models for Swine Barn Operations	11-086	Ulrich, Richard K.	University of Arkansas
Environment	A Life Cycle Analysis of the Water Footprint for U.S. Pork Production	11-133	Matlock, Marty	University of Arkansas
Environment	Interpretation of Final Report on NAEMS Data for Pork Operations	11-176	Burns, Robert T.	University of Tennessee Agricultural Experiment Station
Genomics	The economic value of genomic selection to swine breeding herds	11-017	Stalder, Kenneth J.	Iowa State University
Genomics	Genome-wide association meta-analysis of experimental populations to identify QTL for pork quality and validation in commercial populations	11-042	Bates, Ronald O.	Michigan State University
Genomics	Genome-Wide Association Study for Sow Feed Efficiency and Reproduction and Genomic Selection using Low Density Panels	11-056	Dekkers, Jack C.M.	Iowa State University
Genomics	Genome-wide association analyses of sow reproduction and lifetime productivity	11-070	Ciobanu, Daniel	University of Nebraska-Lincoln
Genomics	Increased Accuracy of Selection for Nutrient Utilization in Duroc Pigs by Application of Genomic Tools	11-076	Cassady, Joe	North Carolina State University
Human Nutrition	Effects of pork vs. chicken/fish in a DASH diet on blood pressure regulation in older adults with hypertension	11-154	Campbell, Wayne W.	Purdue University
International Trade	Depletion of penicillin G residues in sows after intramuscular injection	11-180	Smith, David J.	USDA-ARS, Northern Plains Area
Nutritional Efficiency	Improving fiber digestibility in DDGS from ethanol production	11-097	Trupia, Sabrina	Southern Illinois University-Edwardsville
Nutritional Efficiency	Determining the biological and metabolic differences between slow and fast growing pigs raised in commercial conditions	11-124	Patience, John	Iowa State University
Nutritional Efficiency	Impact of Mitochondrially Targeted Novel Antioxidant on Pig Feed Efficiency	11-126	Beitz, Don	Iowa State University
Nutritional Efficiency	Development of a practical net energy system (productive energy) that allows for the capture of ingredient cost savings expected from NE systems but focuses equally on maintaining pig performance	11-127	Patience, John	Iowa State University

FUNDED RESEARCH - 2011

<u>Category</u>	<u>Project Title</u>	<u>ID#</u>	<u>Investigator</u>	<u>Organization</u>
Nutritional Efficiency	Validation of Digestible and Metabolizable Energy Prediction Equations, and Determination of Net Energy of Corn DDGS Sources Varying in Fat and Fiber Content in Growing Pigs	11-136	Kerr, Brian	USDA, ARS, Midwest Area
Nutritional Efficiency	Reducing feed cost through improved knowledge of using soybean hulls in modern commercial swine nursery and finishing diets	11-139	DeRouchey, Joel	Kansas State University
Nutritional Efficiency	Energy and P-digestibility in bakery meal and corn co-products	11-168	Stein, Hans H.	University of Illinois
Nutritional Efficiency	Re-evaluating moderate to severe feed processes in light of high ingredient prices and the increasing use of fibrous feedstuffs	11-169	McKinney, Leland	Kansas State University
Nutritional Efficiency	Effects of reducing the particle of corn fed to growing pigs	11-170	Stein, Hans H.	University of Illinois
Pork Quality	National Pork Retail Benchmarking Study	11-163	Newman, David	North Dakota State University
Pork Safety/Pre-Harvest	Epidemiology of Staphylococcus aureus in multiple site pig farms	11-016	Davies, Peter	Regents of the University of Minnesota
Pork Safety/Pre-Harvest	Analysis of Salmonella Pre-Harvest Control Strategies for Domestic & International Markets	11-082	O'Connor, Annette	Iowa State University
Pork Safety/Pre-Harvest	Evaluation of the nasal metagenome and its potential role in MRSA colonization in pigs	11-096	Weese, J Scott	University of Guelph
Pork Safety/Pre-Harvest	Effect of Lairage on Prevalence of Methicillin-Resistant Staphylococcus aureus (MRSA) in Market Swine	11-131	McKean, James D.	Iowa State University
Pork Safety/Pre-Harvest	Does the inclusion of distillers dried grains with solubles (DDGS) in the diet of grow-finish pigs affect their susceptibility to and colonization with Salmonella enterica?	11-159	Rostagno, Marcos	USDA, ARS, Midwest Area
Public Health	Phenotypic and Genotypic Characterization of Methicillin Susceptible Staphylococcus aureus (MSSA) in Pigs and Farm Workers	11-071	Molla, Bayleyegn	The Ohio State University
Public Health	Assessing predominant transmission routes for Toxoplasma gondii using NHANES 2007-2010	11-183	Hill, Dolores	USDA, ARS, Beltsville Area
Sow Lifetime Productivity	Diagnosis of sow lameness using the microcomputer-based force plate system and pattern recognition methods	11-092	Stalder, Kenneth J.	Iowa State University
Sow Lifetime Productivity	Evaluation of a Physiological Test for Sow Longevity	11-103	Flowers, W. L.	North Carolina State University
Sow Lifetime Productivity	Development of Strategies to Improve Sow Productive Lifetime	11-111	Ross, Jason W.	Iowa State University
Sow Lifetime Productivity	Reproductive performance and longevity in replacement gilts allowed different amounts of floor space during the nursery phase of rearing	11-118	Estienne, Mark	Virginia Polytechnic Institute and State University
Sow Lifetime Productivity	Effects of Prewaning Factors on Sow Lifetime Productivity	11-146	Cassady, Joe	North Carolina State University
Sow Lifetime Productivity	Developing validated and objective industry-ready tools to assess joint pain manifestation and lameness in the sow	11-179	Johnson, Anna	Iowa State University
Swine Health	Development of classical swine fever virus diagnostic assays for porcine oral fluid samples	11-001	Thanawongnuwech, Roongroje	Chulalongkorn University
Swine Health	Rational design of attenuated foot-and-mouth disease virus strains for development of improved disease countermeasures.	11-005	de los Santos, Teresa	USDA, ARS, North Atlantic Area
Swine Health	Development of fluorescent recombinant antibodies to detect African swine fever virus in tissue samples and infected cells	11-022	Escribano, Jose M.	Instituto Nacl. Investigacion y Tecnologia Agraria y Alimentaria (INIA)
Swine Health	Novel multiplex diagnostic assays development for diagnosis of porcine respiratory disease complex	11-037	Fang, Ying	South Dakota State University

FUNDED RESEARCH - 2011

<u>Category</u>	<u>Project Title</u>	<u>ID#</u>	<u>Investigator</u>	<u>Organization</u>
Swine Health	Impact of influenza vaccination of growing pigs on bioaerosol generation	11-038	Torremorell, Montserrat	Regents of the University of Minnesota
Swine Health	Monitoring of a bacterial infection (<i>Erysipelothrix rhusiopathiae</i>) via oral fluid testing	11-040	Opriessnig, Tanja	Iowa State University
Swine Health	Comparative analysis: The pathogenesis of disease induced in piglets by group A, B and C rotaviruses, singularly or concurrently	11-043	Madson, Darin	Iowa State University
Swine Health	Evaluation of Envelope Proteins for Rapid Induction of Protective Immune Responses Against Classical Swine Fever	11-045	Borca, Manuel	USDA, ARS, North Atlantic Area
Swine Health	Comparison of the efficacy of vaccines based on subtype PCV2a or PCV2b in their ability to protect against PCV2b or PCV2a/b challenge	11-055	Opriessnig, Tanja	Iowa State University
Swine Health	Development of an improved <i>Mycoplasma hyopneumoniae</i> -specific ELISA (Yr 2 of 08-062)	11-057	Minion, F. Chris	Iowa State University
Swine Health	Comparison of PCR and serological assays for reliable, early and fast detection of PRRSV in boar studs	11-058	Opriessnig, Tanja	Iowa State University
Swine Health	Immune correlates of clinical outcomes in maternal antibody-positive piglets vaccinated with attenuated or killed SIV and challenged with an antigenic variant	11-061	Sandbulte, Matthew	Iowa State University
Swine Health	Effects of Exposure to Organic Dust on Macrophage Function: Implication for Swine Respiratory Health	11-064	Tuggle, Chris	Iowa State University
Swine Health	Characterization of emerging porcine parvovirus types in the U.S. pig population	11-065	Opriessnig, Tanja	Iowa State University
Swine Health	Development of novel mucosal vaccines against swine influenza in pigs	11-073	Khatri, Mahesh	The Ohio State University
Swine Health	Reverse Vaccinology and Genomics Towards Controlling Post-Weaning Diarrhea	11-081	Johnson, Timothy	Regents of the University of Minnesota
Swine Health	Effects of enteric disease on the prevalence of fallback pigs and profitability in a commercial setting	11-084	Patience, John	Iowa State University
Swine Health	Simultaneous detection of antibodies against swine pathogens in oral fluid samples by a novel improved magnetic bead-based method	11-173	Opriessnig, Tanja	Iowa State University
Swine Health	Investigating potential existence of chronic, persistent foot-and-mouth disease virus infection in domestic pigs; implications for disease control strategies.	11-174	Arzt, Jonathan	USDA, ARS, North Atlantic Area
Swine Health	Quality control assessment of blended source vitamin D supplied to feed manufacturers for use in swine diets	11-177	Madson, Darin	Iowa State University
Swine Health	Characterization of pathogenic and molecular differences in atypical <i>Brachyspira</i> spp. clinical isolates versus classic strains.	11-178	Burrough, Eric	Iowa State University
Swine Health - PRRS	Novel DNA-vaccine for PRRSV with improved heterologous protection	11-089	Zakhartchouk, Alexander	University of Saskatchewan
Swine Health - PRRS	An Interferon-inducible Porcine Reproductive and Respiratory Syndrome Virus Isolate	11-106	Zhang, Yan-Jin	University of Maryland
Swine Health - PRRS	PRRSV Identification by Virochip	11-109	Nicholson, Tracy	USDA, ARS, Midwest Area
Swine Health - PRRS	Prewaning surveillance: Finger on the pulse of PRRSV epidemiology, transmission and spread	11-113	Zimmerman, Jeffrey	Iowa State University
Swine Health - PRRS	Comparison of porcine high fever disease isolates of PRRSV to US isolates for their ability to cause secondary bacterial infection in swine	11-119	Brockmeier, Susan L.	USDA, ARS, Midwest Area
Swine Health - PRRS	Implementation of an integrated mapping service to support regional control and elimination of PRRS virus	11-128	Morrison, Robert B.	Regents of the University of Minnesota

FUNDED RESEARCH - 2011

<u>Category</u>	<u>Project Title</u>	<u>ID#</u>	<u>Investigator</u>	<u>Organization</u>
Swine Health - PRRS	Multi-institutional development and validation of a multiplex fluorescent microsphere immunoassay for the diagnosis of multiple agents in serum and oral fluid	11-143	Rowland, Raymond R.	Kansas State University
Swine Health - PRRS	Design and analysis of PRRSv surveillance: temporal and spatial sampling, mapping, monitoring and automated rapid detection of outbreak	11-165	Wang, Chong	Iowa State University