

FUNDED RESEARCH - 2008

Category	Project Title	ID#	Investigator	Organization
Animal Welfare	Effects of floor space during transport and journey time on transport losses and well-being of market-weight pigs	08-037	Ellis, Michael	University of Illinois
Animal Welfare	Methods to reduce the pain associated with castration	08-084	Brooks, Tiffanie	Texas Tech University
Animal Welfare	Optimized alternative housing and management strategies enhance sow wellbeing	08-128	Salak-Johnson, Janeen L.	University of Illinois
Animal Welfare	Developing best management practices for on-farm euthanasia of young pigs using carbon dioxide gas	08-145	Brooks, Tiffanie	Texas Tech University
Animal Welfare	Effect of a softer floor surface in the farrowing crate on the expression of lameness and subsequent sow performance	08-153	Deen, John	Regents of the University of Minnesota
Animal Welfare	Effect of timing of grouping of sows during early gestation on welfare and performance of sows in group pens with electronic sow feeders	08-154	Deen, John	Regents of the University of Minnesota
Animal Welfare	The Adoption of Captive Bolt Technology for On Farm Euthanasia of Swine	08-167	Woods, Jennifer	J. Woods Livestock Services
Animal Welfare	Gestation sow housing: literature review and assessment of needs	08-275	Brooks, Tiffanie	Texas Tech University
Animal Welfare	Systematic Literature Review and Needs Assessment of Housing Systems for Gestating Sows in Group Pens with Individual Feeding	08-276	Gonyou, Harold W.	Prairie Swine Centre, Inc.
Environment/Odor	Enhancing the Value of Swine Manure and Nutrient Availability with Application Timing and Cover Crops	08-013	Randall, Gyles W.	Regents of the University of Minnesota
Environment/Odor	Liquid Swine Manure Application for Soybean Production -- Soil Nitrogen and Pathological Implications	08-052	Mullen, Robert	Ohio State University
Environment/Odor	Effect of Adding Sawdust and Corn Stover on Thermochemical Conversion of Swine Manure into Crude Oil	08-076	Zhang, Yuanhui	University of Illinois
Environment/Odor	Effectiveness of Biofilter in Reducing Aerial Pollutant Emissions	08-089	Lim, Teng Teeh	University of Missouri - Columbia
Environment/Odor	Demonstrating Innovative Use of Precision Farming Technologies to Optimize Manure Nutrient Utilization and Reduce Environmental Concerns	08-131	Wolkowski, Richard	University of Wisconsin-Madison
Environment/Public Health	Genetic and antigenic characterization of North American H1 swine influenza viruses	08-031	Vincent, Amy	USDA, ARS, Midwest Area
Environment/Public Health	Prevalence and characterization of Methicillin Resistant Staphylococcus aureus (MRSA) in pigs and farm workers on conventional and antibiotic free swine farms in the USA.	08-178	Davies, Peter	Regents of the University of Minnesota
Environment/Public Health	Prevalence and characterization of Methicillin Resistant Staphylococcus aureus (MRSA) in pigs and farm workers on conventional and antibiotic free swine farms in the USA.	08-179	Gebreyes, Wondwossen A.	Ohio State University
Environment/Public Health	Prevalence and characterization of Methicillin Resistant Staphylococcus aureus (MRSA) in pigs and farm workers on conventional and antibiotic free swine farms in the USA.	08-180	Smith, Tara	University of Iowa
Environment/Public Health	Noroviruses in finisher swine: prevalence and relatedness to human noroviruses	08-183	Saif, Linda J.	Ohio State University

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Environment/Public Health	Phenotypic and genotypic comparison of toxigenic Clostridium difficile isolates from a semi-closed population of swine and humans in a vertically integrated swine operation	08-188	Harvey, Roger B.	USDA, ARS, Southern Plains Area
Environment/Public Health	Serological Surveillance of Wild Boars for Trichinella spiralis	08-216	Hill, Dolores	USDA, ARS, Beltsville Area
Environment/Public Health	Evaluation of methodologies for qualitative and quantitative detection of methicillin-resistant Staphylococcus aureus (MRSA) in retail pork	08-219	Weese, J Scott	University of Guelph
Genomics	Large-Scale Association Analyses of Candidate Genes for Feed Efficiency Traits in Pig	08-011	Rothschild, Max	Iowa State University
Genomics	Identification of quantitative trait nucleotides (QTN) for pork tenderness	08-105	Nonneman, Dan	USDA-ARS, Northern Plains Area
Genomics	Large scale SNP association analyses of feed efficiency and longevity.	08-190	Rothschild, Max	Iowa State University
Genomics	Validation of commercial DNA tests for production efficiency, meat quality, and maternal traits in purebred swine.	08-233	Schwab, Clint	National Swine Registry
Human Nutrition	Effect of a High Protein Diet on 24-hr Profile of Ghrelin, GH and IGF-1	08-017	Gannon, Mary C.	Minnesota Veterans Research Institute
Human Nutrition	A National Survey of the Nitrite/Nitrate Concentrations in Cured Meat Products and Non-meat Foods Available at Retail	08-124	Keeton, Jimmy	Texas A&M University
Human Nutrition	Assessment of the Potential Human Exposure to Heterocyclic Amines from Cooked Meat Products	08-176	Miller, Arthur	Exponent, Inc.
Human Nutrition	Assessment of Human Exposure to Heterocyclic Amines (HCAs) from Cooked Meat Products	08-177	Smith, J. Scott	Kansas State University
International Trade	Survival of porcine reproductive and respiratory virus and porcine circovirus on various pork products	08-135	Patnayak, Devi	Regents of the University of Minnesota
International Trade	Effect of lactic acid commercial chilling processes on the survival of Salmonella, Campylobacter coli and Yersinia spp. in pork variety meats	08-171	Hardin, Margaret	Texas A&M University
Nutritional Efficiency	Interactive effects of DDGS and housing system on sow performance and longevity	08-004	Johnston, Lee J.	Regents of the University of Minnesota
Nutritional Efficiency	Assessment of the effects of diets containing DDGS with supplemental tallow on fat digestibility, growth performance, carcass and fat quality in growing-finishing pigs	08-015	Shurson, Gerald	Regents of the University of Minnesota
Nutritional Efficiency	Effects of Dietary Aflatoxin on Hepatic Gene Expression in Swine	08-075	Cammack, Kristi	University of Wyoming
Nutritional Efficiency	Sulfur Concentration in Distiller's Dried Grains with Soluble (DDGS) and Its Impact on Palatability and Pig Performance	08-093	Zhang, Yanhong	Southern Illinois University-Edwardsville
Nutritional Efficiency	Characteristics and Eating Quality of Bacon, Sausage, and Boneless Chops from Finishing Pigs Fed Medium and High Levels of Distillers Dried Grains with Solubles (DDGS)	08-094	Cromwell, Gary L.	University of Kentucky
Nutritional Efficiency	In vitro estimation and in vivo determination of metabolizable energy in corn co-products	08-107	Kerr, Brian	USDA, ARS, Midwest Area

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Nutritional Efficiency	Critical evaluation of commercially available enzymes, and processing on nutrient digestibility of swine diets containing DDGS	08-111	Kerr, Brian	USDA, ARS, Midwest Area
Nutritional Efficiency	Regulation of Amino Acid Transport Efficiency by the Porcine Mammary Gland	08-113	Trottier, Nathalie L.	Michigan State University
Nutritional Efficiency	Ileal and total tract apparent and true digestibility of fat in distillers dried grains with solubles and other corn oil products fed to growing pigs.	08-115	Stein, Hans H.	University of Illinois
Nutritional Efficiency	Development of equations to predict the metabolizable energy content of corn distiller's dried grains with solubles from a wide variety of sources	08-174	Ellis, Michael	University of Illinois
Nutritional Efficiency	Development of a Soy Allergenicity Model in Swine (Year 3)	08-182	Fitzpatrick, Melanie	SmithBucklin Corporation
Pork Safety/Post-Harvest	Novel molecular approaches for the rapid detection of Salmonella from pork products and the pork processing environment	08-007	D'Souza, Doris	University of Tennessee Agricultural Experiment Station
Pork Safety/Post-Harvest	Validation of sanitation procedures to prevent cross contact with allergens during the processing of pork products	08-090	Hardin, Margaret	Texas A&M University
Pork Safety/Post-Harvest	Incidence and Severity of Arcanobacterium pyogenes Injection Site Abscesses with Needle or Needle-Free Injection Methods	08-239	Houser, Terry	Kansas State University
Pork Safety/Pre-Harvest	Development of an intervention that targets Campylobacter's amino acid fermentation niche	08-020	Anderson, Robin C.	USDA, ARS, Southern Plains Area
Pork Safety/Pre-Harvest	Identifying genes associated with Salmonella shedding to increase pork safety through improved genetic resistance-year 2 of 07-062	08-034	Tuggle, Chris	Iowa State University
Pork Safety/Pre-Harvest	White Paper on Human Illness Caused by Salmonella from all Food and Non-food Vectors	08-173	Kaspar, Charles W.	University of Wisconsin-Madison
Pork Safety/Pre-Harvest	Expansion of the Salmonella in Pork Risk Assessment: Incorporation of Toxoplasma in pork, and assessing the relationship between on-farm factors and risk.	08-249	Paoli, Greg	Risk Sciences International, Inc.
Pork Safety/Pre-Harvest	Genotyping of Campylobacter coli in Pigs from Farm to Fork.	08-263	Gebreyes, Wondwossen A.	Ohio State University
Sow Lifetime Productivity	Evaluation of the lean content and trim of cull sows on their value at harvest.	08-010	Stalder, Kenneth J.	Iowa State University
Sow Lifetime Productivity	Association of genetic markers with structural soundness and its relationship to gilt development and sow longevity	08-012	Rothschild, Max	Iowa State University
Swine Health	Development of a live attenuated vaccine against swine influenza by reverse genetics (Year 2 of 07-019)	08-003	Zhou, Yan	University of Saskatchewan
Swine Health	Strategies to include STa antigen in vaccine development against porcine post-weaning diarrhea (PWD)	08-005	Zhang, Weiping	South Dakota State University
Swine Health	Development of an improved Mycoplasma hyopneumoniae-specific ELISA	08-062	Minion, F. Chris	Iowa State University
Swine Health	Testing of a live enterotoxigenic E. coli vaccine candidate for its potential as a competitive exclusion probiotic to prevent colibacillosis in weaned pigs	08-077	Francis, David	South Dakota State University
Swine Health	Evaluation of Actinobacillus pleuropneumoniae diagnostic tests using samples from naturally and experimentally infected pigs	08-095	Oliveira, Simone	Regents of the University of Minnesota

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Swine Health	Evaluation of the safety and efficacy of a second generation live chimeric PCV1-2 vaccine in the PCV2-PRRSV coinfection model	08-132	Opriessnig, Tanja	Iowa State University
Swine Health	Influence of PRRSV viremia on PCV2-vaccine efficacy in conventional growing pigs with maternally derived anti-PCV2-antibodies	08-146	Opriessnig, Tanja	Iowa State University
Swine Health	Evaluation of pathogenesis of concurrent SIV and PCV2 infection in CD/CD pigs	08-148	Lenz, Stephen	Purdue University
Swine Health	Understanding the Immunopathogenesis of Porcine Multisystemic Wasting Syndrome: the Immunological Effects of PCV2 and PRRSV Co-infection	08-156	LeRoith, Tanya	Virginia Polytechnic Institute and State University
Swine Health	Mapping T cell epitopes in PCV2 capsid protein	08-159	Wyatt, Carol	Kansas State University
Swine Health	Do capsid mutants with the PCV-2 genotype variations induce virulence differences in vitro and in vivo?	08-268	Grasland, Beatrice	Agence Française de Sécurité Sanitaire des Aliments
Swine Health	Comparison of the level of protection and long-term duration of immunity induced by different commercial PCV2 vaccines (sow and piglets vaccines) and an experimental PCV1-2 live vaccine in conventional pigs	08-269	Opriessnig, Tanja	Iowa State University
Swine Health	The role of maternal antibody in determining PCV2 vaccine efficacy	08-271	Rowland, Raymond R.	Kansas State University
Swine Health - PRRS	Sequencing, Cloning and Characterization of a 2007 Vietnam PRRSV isolate	08-181	Faaberg, Kay S.	USDA, ARS, Midwest Area
Swine Health - PRRS	Evaluation of adjuvants at the mucosal area for development of innovative mucosal vaccine against PRRS	08-187	Gourapura, Renukaradhya	Ohio State University
Swine Health - PRRS	Development of a rapid, swine-specific, multiplex test to simultaneously detect immune proteins (cytokines) affected by PRRSV infection	08-189	Christopher-Hennings, Jane	South Dakota State University
Swine Health - PRRS	Identifying PRRSV structural components that activate regulatory T cells and diminish protective immunity	08-193	LeRoith, Tanya	Virginia Polytechnic Institute and State University
Swine Health - PRRS	Subverting the function of PRRSV nucleocapsid protein for innovative vaccine design	08-196	Hiscox, Julian	University of Leeds
Swine Health - PRRS	Induction of cross-protective immunity without exposure to live PRRSV	08-197	Enjuanes, Luis	Centro Nacional de Biotecnología (CNB), CSIC
Swine Health - PRRS	Vaccination of pigs with alphavirus replicon particles expressing PRRSV ORF 3, 4, 5 and 6	08-207	Harris, D.L. Hank	Iowa State University
Swine Health - PRRS	Evaluation of an alternative PRRSV monitoring protocol for negative sow farms	08-209	Rovira, Alberto	Regents of the University of Minnesota
Swine Health - PRRS	Gene expression in lymph nodes of PRRSV-infected pigs	08-247	Miller, Laura	USDA, ARS, Midwest Area
Swine Health - PRRS	Development of a modified live vaccine against PRRSV with optimal DIVA marker potential	08-248	Osorio, F. A.	University of Nebraska-Lincoln
Swine Health - PRRS	Role of All of the PRRSV Glycoproteins in Protective Immune Response	08-253	Pattnaik, Asit	University of Nebraska-Lincoln
Swine Health - PRRS	Quantifying risk factors for PRRS virus introduction into swine herds through the use of the PRRS Risk Assessment.	08-255	Holtkamp, Derald	Iowa State University
Worker Safety	Hydrogen Sulfide Spatial Distribution and Worker Exposure in Swine Houses	08-119	Burns, Robert T.	Iowa State University

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Animal Science	Development of a three dimensional digital model of the skeleton and muscular anatomy of the pork carcass including several learning modules.	08-258	Jones, Steven J.	University of Nebraska-Lincoln
Animal Welfare	The influence of facility design and pre-sorting on the stress response and transportation losses of the market weight pig.	08-175	Johnson, Anna	Iowa State University
Antimicrobial Use & Resistance	'Effects of Subtherapeutic Antibiotics on Antibiotic Resistance and Virulence Gene Transfer in Swine Intestinal Bacteria'	08-002	Carlson, Steve	Iowa State University
Economics	Economic analysis of the UNL gilt development project	08-256	Johnson, Rodger	University of Nebraska-Lincoln
Environment/Odor	Mitigation of ammonia from swine barns through UV treatment of exhaust air	08-117	Jenks, William	Iowa State University
Environment/Odor	Effects of Manure Handling and Application Method on Odor and Gas Emission Potential of Swine Manure	08-259	Stowell, Richard R.	University of Nebraska-Lincoln
Pork Safety/Post-Harvest	Comparative Evaluation of Rapid Methods for Salmonella Detection in Pork	08-120	Wesley, Irene V.	USDA, ARS, Midwest Area
Sow Lifetime Productivity	Influence of sow lean mass at first farrowing and estrus management after weaning on sow fertility and longevity	08-070	Baker, Rodney (Butch)	Iowa State University
Swine Health	Investigations into the etiology of the sudden emergence of mulberry heart disease in pig herds across the U.S. in 2007	08-022	Opriessnig, Tanja	Iowa State University
Swine Health	Influenza Vaccination of Pigs in the Presence of Maternally-Derived Antibodies	08-050	Harris, D.L. Hank	Iowa State University
Swine Health	Improvement of vaccine protection against swine influenza: Proof-of-concept	08-261	Yoon, Kyoung-Jin	Iowa State University
Swine Health - PRRS	Predictors of response and genetic resistance/susceptibility in pigs to infection with Porcine Reproductive and Respiratory Syndrome virus	08-257	Levis, Donald G.	University of Nebraska-Lincoln
Swine Health - PRRS	Genetic and antigenic characterization of a recent PRRSV isolate	08-260	Opriessnig, Tanja	Iowa State University
Swine Health - PRRS	Optimization of the PRRSV antibody ELISA for use in oral fluid-based surveillance	08-262	Zimmerman, Jeffrey	Iowa State University