

## FUNDED RESEARCH - 2006

Category	Project Title	ID#	Investigator	Organization
Animal Science	North American Swine Energy System	06-002	Pettigrew, James E.	University of Illinois
Animal Science	ASSOCIATION OF GENETIC MARKERS WITH STRUCTURAL SOUNDNESS AND ITS RELATIONSHIP TO GILT DEVELOPMENT AND SOW LONGEVITY	06-019	Rothschild, Max	Iowa State University
Animal Science	Association of compositional traits and structural soundness with the ability of commercial line of sows to complete parities two and three	06-031	Stalder, Kenneth J.	Iowa State University
Animal Science	Reduced Nocturnal Temperature for Early-Weaned Pigs	06-072	Thaler, Robert	South Dakota State University
Animal Science	Development of a Soy Allergenicity Model in Swine	06-085	Winkle, Mark	SmithBucklin Corporation
Animal Science	Evaluation of dietary butyrate as a growth promotant and on the response to lipopolysaccharide (LPS) in weanling pigs.	06-097	Weber, Thomas	USDA, ARS, Midwest Area
Animal Science	Understanding the relationship between immune response, intestinal microbial ecology and growth performance in nursery pigs fed diets with, or without in-feed antibiotics or a combination of beta-glucan and vitamin C, and undergoing transportation stress.	06-103	Rostagno, Marcos	USDA, ARS, Livestock Behavior Research Unit
Animal Science	Sow Longevity Management Guide - Literature Review	06-188	Meisinger, David	Iowa State University
Animal Science	Association of compositional traits and structural soundness with the ability of commercial line of sows to complete parities four and five (A continuation of the original projects 2005 and 2006 with a similar name)	06-192	Stalder, Kenneth J.	Iowa State University
Animal Welfare	Space requirements of weaned pigs during transportation	06-011	McGlone, John J.	Texas Tech University
Animal Welfare	What is the optimum age for processing neonatal pigs?	06-026	Torrey, Stephanie	Agriculture and Agri-Food Canada (AAFC)
Animal Welfare	Impact of Auto-sort Systems on Pig Welfare	06-053	Salak-Johnson, Janeen L.	University of Illinois
Animal Welfare	Comparison of chute design on the ease of loading finisher pigs. How does this affect their performance, welfare parameters and overall economics to the producer?	06-062	Johnson, Anna	Iowa State University
Animal Welfare	Effectiveness of a non-penetrating captive bolt device for on-farm euthanasia of low- viability piglets	06-165	Widowski, Tina	University of Guelph
Animal Welfare	Long distance transport of breeding stock	06-181	McGlone, John J.	Texas Tech University
Animal Welfare	Is tail docking necessary and if so, how long should the tail be?	06-183	McGlone, John J.	Texas Tech University
Antimicrobial Use & Resistance	Analysis of in-plant Factors and Genotyping of Antimicrobial Resistance among Four Organisms Isolated from Swine Processing Plants	06-162	Gebreyes, Wondwossen A.	Ohio State University
Environment/Odor	Development of a Database for Environmental Management Practices Employed at Pork Production Facilities	06-014	Burns, Robert T.	Iowa State University
Environment/Odor	Particulates, Ammonium Nitrate, and Ammonium Sulfate: Effects on Air Quality in Rural Iowa	06-098	Pfeiffer, Richard	USDA, ARS, Midwest Area

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Environment/Odor	Thermochemical Conversion Process to Produce Oil from Swine Manure	06-102	Zhang, Yuanhui	University of Illinois
Environment/Odor	Odor compound production, accumulation, and volatilization from swine manure storage	06-111	Miller, Dan	USDA-ARS, Northern Plains Area
Environment/Odor	Chemical Characterization of both particulates and gaseous emissions from impacted and non-impacted areas associated with swine feeding operations.	06-114	Trabue, Steven	USDA, ARS, Midwest Area
Environment/Odor	Effect of soybean peroxidase activity on phenolic compounds, ammonia, and other organic compounds in swine manure	06-115	Richert, Brian T.	Purdue University
Environment/Odor	Alternative feedstuffs for reducing ammonia and odor emissions in pork production systems and improving the pig's gut health	06-117	Leterme, Pascal	Prairie Swine Centre, Inc.
Environment/Odor	Liquid Swine Manure Application for Soybean Production - Soil Nitrogen and Pathological Implications	06-118	Mullen, Robert	Ohio State University
Environment/Odor	Demonstrating Innovative Use of Precision Farming Technologies to Optimize Manure Nutrient Utilization and Reduce Environmental Concerns	06-120	Wolkowski, Richard	University of Wisconsin-Madison
Environment/Odor	Monitoring Ambient Atmospheric Chemistry Along a Gradient of Ammonia Emission Density in Eastern North Carolina	06-121	Robarge, Wayne P.	North Carolina State University
Environment/Public Health	Epidemiological survey to determine the prevalence of Clostridium difficile in swine in an integrated swine operation	06-156	Harvey, Roger B.	USDA, ARS, Southern Plains Area
Environment/Public Health	Employing phage therapy to reduce lairage associated increases in Salmonella infections and shedding	06-167	Ebner, Paul	Purdue University
Environment/Public Health	E. coli O157:H7 prevalence and characterization from NAHMS 2006 swine fecal samples	06-170	Fedorca-Cray, Paula J.	USDA, ARS, South Atlantic Area
Environment/Public Health	A Diagnostic for Rapid Detection of Pathogenic Listeria monocytogenes as an Indicator of Hygiene on Food Contact and Non-Food surfaces in the Pork Processing Environment	06-178	Goodridge, Lawrence	Colorado State University
Environment/Public Health	Salmonella sample cryopreservation enables epidemiologic study, quantification of bacteria and further characterization of bacterial isolates.	06-185	Bahnon, Peter B.	University of Wisconsin-Madison
Pork Quality	Pork Quality Benchmark Project	06-139	Moeller, Steven J.	Ohio State University
Pork Safety/Post-Harvest	Improving the Safety of Pork Products (Hams, Bacon and Frankfurters) Processed to Simulate Traditionally Cured Pork but Without Addition of Nitrite or Nitrate	06-008	Sebranek, Joseph G.	Iowa State University
Pork Safety/Post-Harvest	Microbiological Risk Factors with Moisture Enhanced Fresh Pork	06-029	Dickson, James S.	Iowa State University
Pork Safety/Post-Harvest	Baseline Study - Prevalence and Levels of Salmonella and Campylobacter on Retail Pork Cuts	06-186	Warren-Serna, Wendy	Food Safety Net Services, Inc.
Pork Safety/Pre-Harvest	Toll-like receptor agonist administration for the prevention of Salmonella colonization of the swine gut	06-003	Genovese, Kenneth	USDA, ARS, Southern Plains Area
Pork Safety/Pre-Harvest	Risk Assessment of Hepatitis E Virus-contaminated Commercial Pig Livers Sold in Local Grocery Stores in the United States	06-005	Meng, Xiang-Jin	Virginia Polytechnic Institute and State University
Pork Safety/Pre-Harvest	Quantifying Salmonella and Campylobacter Peri-harvest in Swine	06-054	Wittum, Tom	Ohio State University

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Pork Safety/Pre-Harvest	Quantitation of Salmonella in transport and lairage to assess interventions for reduction of cross-contamination in pigs	06-086	Harris, D.L. Hank	Iowa State University
Pork Safety/Pre-Harvest	Risk Assessment for Campylobacter spp. and Salmonella spp. in Pork	06-144	Miller, Arthur	Exponent, Inc.
Pork Safety/Pre-Harvest	Avian influenza virus: Transmission studies between birds and swine, and development of serologic tests	06-190	Lager, Kelly M.	USDA, ARS, Midwest Area
Pork Safety/Pre-Harvest	A Systematic Review of Literature on Pork Chain Epidemiology	06-193	O'Connor, Annette	Iowa State University
Swine Health	Pathogenicity of the ORF3 gene-silence mutant of type 2 porcine circovirus in pigs: a study towards the development of a marker vaccine	06-006	Meng, Xiang-Jin	Virginia Polytechnic Institute and State University
Swine Health	Development of a surveillance system to monitor the genetic variability and molecular epidemiology of swine bacterial pathogens	06-030	Oliveira, Simone	Regents of the University of Minnesota
Swine Health	Expanding the immune toolkit for assessing pig health and improving swine disease and vaccine studies NPB #05-015 renewal	06-043	Lunney, Joan K.	USDA, ARS, Beltsville Area
Swine Health	Understanding if porcine circovirus type 2 strain differences explain the recent Canadian outbreak	06-067	Halbur, Patrick G.	Iowa State University
Swine Health	The 'Kansas Cluster' of severe PMWS cases: characterization of a novel PCV2 as the possible etiological agent	06-073	Rowland, Raymond R.	Kansas State University
Swine Health	Role of Cachectic Cytokines in PMWS	06-074	Molitor, Thomas W.	Regents of the University of Minnesota
Swine Health	Assessment of viral load in clinical and subclinical pigs naturally infected with the novel 'PCV2-321': implications for the control & prevention of PMWS	06-077	Harding, John	University of Saskatchewan
Swine Health	The role of boar semen in porcine circovirus type 2 (PCV2) transmission: Validation of diagnostic tools and determination of infectivity of PCV2 positive semen samples.	06-080	Halbur, Patrick G.	Iowa State University
Swine Health	Evaluation of a new etiological agent of PMWS/PDNS in conventional pigs.	06-088	Stevenson, Gregory W.	Purdue University
Swine Health	Case-control study of clinically severe circovirus-associated mortality in finishing pig populations in the USA	06-092	Davies, Peter	Regents of the University of Minnesota
Swine Health	Identification of a putative viral co-factor different from PCV2, in animals with PMWS	06-093	Ansari, Israrul	University of Nebraska-Lincoln
Swine Health	Etiology of severe form of PMWS	06-094	Lager, Kelly M.	USDA, ARS, Midwest Area
Swine Health	PCV2 replication and disease enhancement through lymphocyte stimulation	06-095	Thacker, Eileen	Iowa State University
Swine Health - PRRS	Global Gene Expression Profiling of PRRSV-Infected Alveolar Macrophages	06-122	Neill, John	USDA, ARS, Midwest Area
Swine Health - PRRS	Porcine adenovirus 3 based vaccine for porcine respiratory and reproductive syndrome (PRRS)	06-126	Tikoo, Suresh	University of Saskatchewan
Swine Health - PRRS	Implementation of a PRRSV Strain Database - Renewal	06-127	Faaberg, Kay S.	Regents of the University of Minnesota
Swine Health - PRRS	Development of Edible Vaccines against PRRSV: A Proof of Concept Study (continuation)	06-128	Zhang, Chenming (Mike)	Virginia Polytechnic Institute and State University

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Swine Health - PRRS	PRRSV infection of pig macrophages	06-130	Cafruny, William	University of South Dakota
Swine Health - PRRS	Development of protein based ELISA for the rapid strain specific identification of PRRSV and responding to noval emerging variants.	06-132	Hiscox, Julian	University of Leeds
Swine Health - PRRS	Protective antigenic determinant vaccines for PRRSV which differentiate infected from vaccinated animals	06-134	Harris, D.L. Hank	Sirrah LLC
Swine Health - PRRS	Identification of a peptide sequence in nsp2 that can function as a deletion marker for the differentiation of vaccinated from naturally infected pigs	06-135	Rowland, Raymond R.	Kansas State University
Swine Health - PRRS	Development of stable cell lines permissive for PRRSV replication and production	06-145	Yoo, Dongwan	University of Illinois
Swine Health - PRRS	Analysis of prevalent environmental conditions in cases of suspected PRRSV lateral transmission between pig farms.	06-151	Morrison, Robert B.	Regents of the University of Minnesota
Swine Health - PRRS	Development of a simple on-site diagnostic test to detect PRRSV acute infection in boar studs	06-154	Munoz-Zanzi, Claudia	Regents of the University of Minnesota
Swine Health - PRRS	Enhancement of in vitro replication efficiency of Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) in MARC-145 cell line	06-161	Leung, Frederick	The University of Hong Kong
Swine Health - PRRS	Development of a New Generation of Antisense Antiviral Drug against PRRSV	06-168	Zhang, Yan-Jin	University of Maryland
Swine Health - PRRS	Mechanisms of Failed Protection Against PRRS in Sow Herds	06-171	Murtaugh, Michael P.	Regents of the University of Minnesota
Swine Health - PRRS	In vivo evaluation of genetic markers in the Nsp2 region of PRRSV: Implications for future recombinant marker vaccine development	06-173	Fang, Ying	South Dakota State University
Swine Health - PRRS	Exploring PRRS virus GP5 peptides for protective cross-reactive T cell epitopes	06-174	Wyatt, Carol	Kansas State University
Swine Health - PRRS	Rational Design of a New Generation of PRRSV Differential (Marker) Vaccines (Renewal Summer 2006)	06-177	Osorio, F. A.	University of Nebraska Board of Regents
Swine Health - PRRS	Immunogenicity and potency of PRRS MLV vaccines with and without IFN-a suppressing capacity	06-184	Zuckermann, Federico A.	University of Illinois
Swine Health - PRRS	An Industry Education Program for Understanding the Risk Factors Associated with PRRSv Breaks in Negative or Naive Breeding Herds	06-187	Holtkamp, Derald	Iowa State University
<b>STATE FUNDED</b>				
Animal Science	Oxygen consumption and energy digestibility of soybean meal and corn or corn co-product diets fed to grow-finish swine.	06-001	Powers, Wendy	Michigan State University
Environment/Odor	Facilitating Use of the Odor Footprint Tool by Nebraska Pork Producers	06-141	Stowell, Richard R.	University of Nebraska-Lincoln
Nutritional Efficiency	Corn distillers dried grains (DDGS) for growing-finishing swine	06-142	Miller, Phillip S.	University of Nebraska-Lincoln
Pork Quality	Selection for increased intramuscular fat and its effect on other quality traits and the fatty acid composition of pork	06-191	Baas, Tom J.	Iowa State University
Pork Safety/Pre-Harvest	Diagnosis and Prophylaxis of Clostridial Enteritides in Piglets	06-136	Ramirez, Alejandro	Iowa State University
State Review	Adding Value to Swine Manure Through Accurate Prediction of Organic Nitrogen Availability	06-140	Wortmann, Charles S.	University of Nebraska-Lincoln

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Swine Health	Investigations on breed-dependent differences in susceptibility to PCV2.	06-081	Opriessnig, Tanja	Iowa State University
Swine Health	Characterizing level of PCV type 2 virus in serum and expression of PMWS in different populations of pigs	06-143	Johnson, Rodger	University of Nebraska-Lincoln