

**FUNDED RESEARCH - 2003**

<b>Category</b>	<b>Project Title</b>	<b>ID#</b>	<b>Investigator</b>	<b>Organization</b>
Animal Welfare	Influence of gestation housing on sow welfare and productivity	03-055	Kirkwood, Roy	Michigan State University
Animal Welfare	Lameness in Pigs: investigating a welfare issue in commercial herds in the Midwest	03-078	Hill, Michael	Purdue University
Animal Welfare	Evaluation of the effect of group size and structure on welfare of gestating sows in pens with electronic sow feeders	03-098	Deen, John	Regents of the University of Minnesota
Animal Welfare	Strategies to optimize sow longevity	03-110	Rodriguez-Zas, Sandra	University of Illinois
Animal Welfare	Impact of early weaning and photoperiod manipulation on pig welfare	03-111	Salak-Johnson, Janeen L.	University of Illinois
Animal Welfare	The epidemiology of mortality and injuries of weaned pigs during transportation	03-146	Morrison, Robert B.	Regents of the University of Minnesota
Animal Welfare	The effects of space allowance and season on the welfare of early weaned piglets under commercial and experimental transport conditions	03-147	Lewis, Nora	University of Manitoba
Animal Welfare	Ammonia Levels and the Effect on Nursery Pig Welfare	03-159	Mitloehner, Frank	University of California - Davis
Antimicrobial Use & Resistance	Efficacy of direct-fed microbials administered from lactation through the nursery as an alternative to antibiotics in swine diets: an evaluation of performance, gastrointestinal microbial populations, and immune response	03-028	Maxwell, Charles V.	University of Arkansas
Antimicrobial Use & Resistance	Persistence of plasmid-encoded resistance genes in the gastrointestinal bacterial flora of swine	03-068	LeJeune, Jeffrey	Ohio State University
Antimicrobial Use & Resistance	Evaluation of oregano oil as an alternative to the use of antibiotic feed additives in swine production	03-075	Ragland, Darryl	Purdue University
Antimicrobial Use & Resistance	Effects of egg yolk antibodies and antibiotic regimens on carriage and shedding of Salmonella Typhimurium	03-120	Mathew, Alan G.	University of Tennessee Agricultural Experiment Station
Environment/Odor	Utilization of crystalline amino acids by the gut in growing pigs	03-030	Trottier, Nathalie L.	Michigan State University
Environment/Odor	Reduction of Ammonia, Methane, and Carbon Dioxide Emissions from Swine Waste by Dietary Manipulation	03-072	Carter, Scott	Oklahoma State University
Environment/Odor	Nutrient and Pathogen Losses to Subsurface Tile Drainage from Swine Manure	03-094	Randall, Gyles W.	Regents of the University of Minnesota
Environment/Odor	Fecal-contaminant indicators in soils and water of a watershed producing swine and other livestock	03-133	Tomer, Mark D.	USDA, ARS, Midwest Area
Environment/Odor	Laboratory Evaluation and Field Verification of Single Point Monitors (SPM's) for Measuring Aerial Ammonia and Hydrogen Sulfide Associated with Swine Operations	03-139	Xin, Hongwei	Iowa State University
Environment/Odor	Comparative Analysis of Odor Evaluation and Aerosol Monitoring Techniques	03-151	von Bernuth, Robert D.	Michigan State University
Environment/Odor	A Planning Tool for Assessing the relative Contribution of Facility Components to Air Quality Surrounding Pork Production Sites	03-158	Schulte, Dennis	University of Nebraska-Lincoln
Environment/Odor	Developing Virtual Engineering Tools for Hoop Swine Housing	03-161	Bryden, Kenneth Mark	Iowa State University
Pork Safety/Pre-Harvest	Role of gilts in the introduction and transmission of Salmonella in swine production systems	03-026	Weigel, Ronald M.	University of Illinois
Pork Safety/Pre-Harvest	Development of a rapid detection method for Salmonella serotypes using a flow cytometric assay	03-048	Wannemuehler, Michael	Iowa State University

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Pork Safety/Pre-Harvest	Lactobacillus reuteri 1063S: A Probiotic Alternative to Addition of Antimicrobials/Antibiotics to Post-weaned Pig Diets.	03-057	Dobrogosz, Walter	North Carolina State University
Pork Safety/Pre-Harvest	Production of Recombinant Porcine Antimicrobial Peptides as Antibiotic Alternatives	03-070	Zhang, Guolong (Glenn)	Oklahoma State University
Pork Safety/Pre-Harvest	Cloning of an 18kd oocyst-specific protein from Toxoplasma gondii for serological detection of human infection	03-125	Hill, Dolores	USDA, ARS, Beltsville Area
Pork Safety/Pre-Harvest	Bioinformatics Based Genome Comparison of Six Salmonella spp. to Provide a Foundation for the Development of Reliable Molecular Epidemiological Methods.	03-132	Dowd, Scot E.	USDA, ARS, Southern Plains Area
Pork Safety/Pre-Harvest	Pre-nitrate adaptation and chlorate supplementation to reduce Salmonella, Escherichia coli, and Yersinia enterocolitica in swine	03-136	Anderson, Robin C.	USDA, ARS, Southern Plains Area
Swine Health	Peptide ELISA for Serodiagnosis of PRRSV	03-013	Plagemann, Peter	Regents of the University of Minnesota
Swine Health	Development of an indirect ELISA to diagnose SIV using antibodies against the viral matrix protein	03-036	Thacker, Eileen	Iowa State University
Swine Health	Optimization of Methods for the Study of Swine Viral Pathogens in Aerosols	03-038	Zimmerman, Jeffrey	Iowa State University
Swine Health	Real-time PCR detection of PRRSV and rapid identification of vaccine in serum and semen	03-052	Oberst, Richard	Kansas State University
Swine Health	Development of an Antiviral and Vaccine Approach to Control Foot-and-Mouth Disease	03-056	Grubman, Marvin J.	USDA, ARS, North Atlantic Area
Swine Health	An Assessment of Urinary Tract Infections in Sows	03-059	Almond, Glen	North Carolina State University
Swine Health	A novel PRRS vaccine in a bacterial vector known to stimulate strong cell-mediated and humoral immunity	03-086	Vemulapalli, Ramesh	Purdue University
Swine Health	Environmental factors that induce the expression of receptors for F18+ enterotoxigenic Escherichia coli	03-090	Francis, David	South Dakota State University
Swine Health	Efficacy of Multiplex SIV TaqMan RT-PCR and PRDC Microarray Hybridization in Predicting Swine Influenza Virus Genotype	03-096	Faaberg, Kay S.	Regents of the University of Minnesota
Swine Health	Development of Real-time, multiplex PCR/RT-PCR assays for improved PRDC pathogen detection	03-114	Kleiboeker, Steven B.	University of Missouri - Columbia
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Environment/Odor	Characterization of VOCs and particulates from swine finishing facilities and relationship of these compounds to human health	03-149	Powers, Wendy	Iowa State University
Production Research	Litter Size Produced by Gilts Divergently Selected on Reproductive Components: Terminal Evaluation	03-141	Safranski, Tim	University of Missouri - Columbia
Swine Health	The immunological significance of PRRS virus genetic variation	03-044	Yoon, Kyoung-Jin	Iowa State University
Swine Health	A study on the effect of a lactating sow's water supply on her piglet's weaning weight, finishing performance and sow health and reproductive efficiency	03-045	Carr, John	Iowa State University
Swine Health	The influence of maternal antibody against porcine reproductive and respiratory syndrome virus (PRRSV) infection and the effect of a killed PRRSV vaccine in increasing the level of maternal antibody	03-046	Thacker, Eileen	Iowa State University

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Swine Health	Immunomodulation of humoral immunity, PRRSV-infected piglets.	03-118	Butler, John E.	University of Iowa
Swine Health	Comparison of Serological Assays in Diagnosing Differing Serotypes of Swine Influenza Virus (SIV)	03-162	Thacker, Eileen	Iowa State University
Swine Health	Prevention of Edema Disease Using a Probiotic Expressing a Shiga Toxin 2e Receptor Mimic	03-163	Cornick, Nancy	Iowa State University
Swine Health	Investigation into the Ability of Anti-idiotypic Antibodies to Protect Pigs from Porcine Reproductive and Respiratory Syndrome Virus Infection	03-164	Zhou, En-Min	Iowa State University