

# Thomas E. Burkey, Ph.D.

---

**Home Address:** 9801 Van Dorn  
Lincoln, NE 68520  
Office: (402) 489-9754  
Mobile: (402) 326-9169  
Email: tburkey2@unl.edu

**Business Address:** Univ. of Nebraska  
C206f Animal Science  
P.O. Box 830908  
Lincoln, NE 68583  
(402) 472-6423

## A. Education

**Kansas State University--Manhattan, KS**

PhD. Animal Physiology, 2006

Emphasis: Mucosal innate immunity

Dissertation title: Expression and regulation of porcine Toll-like receptors

**Kansas State University--Manhattan, KS**

M.S. Animal Science, 2003

Emphasis: Mucosal immunity and nutrition of swine

Thesis title: Effect of dietary mannanoligosaccharide and sodium chlorate on growth performance of weaned pigs challenged with *Salmonella enterica* serotype Typhimurium

**Rockford University -- Rockford, Illinois**

B.A. Biology; Chemistry, Physics and Secondary Education minors (12/1996)

## B. Experience

- 1/20-present: **Interim Associate Dean for Graduate Education & Partnership Engagement**, College of Agricultural Sciences & Natural Resources, University of Nebraska, Lincoln, NE
- 7/19-present: **Professor**, Animal Science Dept., University of Nebraska, Lincoln, NE
- 7/12-6/19: **Associate Professor**, Animal Science Dept., University of Nebraska, Lincoln, NE
- 7/06-6/12: **Assistant Professor**, Animal Science Dept., University of Nebraska, Lincoln, NE
- 8/01-5/06: **Graduate Teaching/Research Assistant**, Kansas State University, Manhattan, KS
- 8/98-6/01: **Secondary Science Teacher**, Hononegah Community High School, Rockton, Illinois
- 8/97-6/98: **Secondary Science Teacher**, North Boone High School, Poplar Grove, Illinois
- 8/96-6/97: **Secondary Science Teacher**, Auburn High School, Rockford Illinois

## C. Awards/Honors

2017 Nebraska Chapter of Gamma Sigma Delta Excellence in Teaching Award

2010 Research Development Fellows Program, UNL Office of Research & Economic Development

2009 Faculty of the Year Award, Presented by the UNL/ISU PPVM, Class of 2012

## D. Membership in Professional Societies and Scientific Activities

Digestive Physiology of Pigs

-U.S. Representative for the International Steering Committee, 2015 – present

Digestive Physiology of Pigs – North America, 2012 – present

-Board of Directors, Secretary, 2014 – present

-DPP, 12<sup>th</sup> International Symposium-Local Steering Committee, 2012

Gut Function Initiative, University of Nebraska, 2006

Interdepartmental Nutrition Program, University of Nebraska, 2006

American Society of Animal Science, 2001  
-Journal of Animal Science, Associate Editor, 2016 – 2019

## **E. Teaching Activities-University of Nebraska**

VMED 550: Nutritional Biochemistry (Fall, 2009 - present)  
BMS 336 (Iowa State University CVM): Veterinary Nutrition (Fall, 2019-present)  
ASCI (NUTR) 927: Amino acid and protein nutrition (Spring, 2008 - present)  
ASCI 496/896: Domestic Animal Immunology, New Course, (Fall, 2018 – present)  
-Co-taught with Dr. Hiep Vu  
ASCI 320: Animal nutrition and feeding (Fall, 2016)  
AGRI 310: Study tours in International Agriculture (Spring, 2016, 2018, 2020)  
-Faculty Leader for “New Zealand: Land of the Long White Cloud”  
VMED 646/ASCI 846: Digestive physiology and metabolism (Spring, 2007 - 2014)  
ASCI (NUTR) 921: Nutrition Seminar (Fall, 2007; Spring, 2013; Fall, 2019; Spring, 2020)  
ASCI 421/821: Advanced animal nutrition (Fall, 2007 and 2008)

## **F. University of Nebraska Service**

### Department of Animal Science

Animal Science Promotion and Tenure Committee, 2020  
Animal Science Academic Program Review Writing Committee, 2018  
Interdisciplinary Department Seminar Committee, 2014 – present  
Animal Science Curriculum Review Committee, 2012 – 2014  
Animal Science Graduate Committee, 2009 – 2020  
-Co-chair, 2019 – 2020  
Animal Science Block and Bridle Club (Advisor), 2009 - 2012, 2015 - present  
-Future Pork Leaders (Advisor), 2015 - 16  
Animal Science Academic Quadrathlon (Chair), 2008 – 2020  
Animal Science Undergraduate Teaching and Advisement Committee  
-Curriculum (2007 - 09, 2013 - present)  
-Advising (2017 – present)  
Animal Science Graduate Student Association (Advisor), 2007 - 09  
Animal Science Safety Committee (Chair), 2006 – 08

### School of Veterinary Medicine and Biomedical Sciences

UNL/ISU Professional Program in Veterinary Medicine Honor Board, 2018 - 2021  
UNL/ISU Professional Program in Veterinary Medicine Admissions Committee, 2010 - 2017  
Committee Co-Chair (2014)  
UNL/ISU Professional Program in Veterinary Medicine Curriculum Committee, 2008 – 2017

### UNL Interdepartmental Nutrition Program (INP)

Interdepartmental Nutrition Program, Executive Committee, 2016 – 2019

### College of Agriculture and Natural Resources (CASNR)

CASNR Teaching and Learning Improvement Council, 2019 – present  
CASNR Pre-Vet Coordinating Committee, 2017 – present

### Institute for Agriculture and Natural Resources (IANR)

GPVEC Working Group, 2019

University-wide

UNL Academic Senate, 2018 – 2020

UNL Intercollegiate Athletic Committee, 2015 – 2016

-Secretary (2015-16)

**F. Professional Service**

Digestive Physiology of Pigs

-International Steering Committee, 2015 – present

Digestive Physiology of Pigs – North America

-Board of Directors, President, 2018 – present

-Board of Directors, Secretary, 2014 – 2018

Digestive Physiology of Pigs – North America

-12<sup>th</sup> International Symposium (2012), Local Steering Committee (Registration Co-chair)

National Pork Board

-Member of Nutrition x Health Focus Group, 2010

American Society of Animal Science

-Journal of Animal Science, Associate Editor, 2016 – 2019

-Translational Animal Science, Editorial Board, 2018 – present

-Midwest ASAS/ADSA Nonruminant Nutrition Committee, 2014 - 2016

\*Committee Chair, 2015

-Midwest Section Academic Quadrathlon Committee, 2009 - 2020

-Joint Annual Meeting, Swine Program Committee, 2009 - 2012

-Journal of Animal Science, Ad hoc journal reviewer, 2006 - present

Natural Sciences and Engineering, Research Council of Canada

-Research Proposal Reviewer, 2014

American Association of Veterinary Immunologists

-Veterinary Immunology and Immunopathology, Ad hoc reviewer, 2007 - present

National Swine Nutrition Guide

-Ad hoc reviewer, 2009

The Poultry Science Association

-Poultry Science, Ad hoc reviewer

Veterinary Research

-Ad hoc reviewer

Alberta Innovates, Canada – Bio Solutions

-Research proposal reviewer, 2010

Veterinary Microbiology

-Ad hoc reviewer

The Nutrition Society

-British Journal of Nutrition, Ad hoc reviewer

PLOS ONE

-Ad hoc reviewer

Livestock Science

-Ad hoc reviewer

Gut Microbes

-Ad hoc reviewer

## **H. Graduate Advisory Committees, Visiting Scholars and UCARE Students M.S.**

2020-present	Katherine Connell, UNL Animal Science (Committee member)
2020-present	J'Nan Wittler, UNL Animal Science (Committee member)
2018	Tyler Pickinpaugh, UNL Animal Science (Committee Chair)
2017-2019	Sydney Kinsler, UNL Animal Science (Committee member)
2014-2017	Ellan DuFour, UNL Animal Science (Committee member)
2014-2017	Ashley Bigge, UNL Animal Science (Committee member)
2015-2017	Shana Barnett, UNL Animal Science (Committee Chair)
2014-2017	Kelly Moore, UNL Animal Science (Committee member)
2012-2014	Chad Jenkins, UNL Animal Science (Committee member)
2012-2014	Taylor Engle, UNL Animal Science (Committee member)
2012-2014	Gabriel Mastromano, UNL Animal Science (Committee Chair)
2010-2013	Yanshuo Li, UNL Animal Science (Co-advised with P.S. Miller)
2008-2011	Rashed Alhotan, UNL Animal Science (Committee member)
2008-2010	Dana Hahn, UNL Animal Science (Committee member)
2007-2009	Huyen Tran, UNL Animal Science (Co-advised with P.S. Miller)
2007-2009	Zhigang Wang, UNL Animal Science (Committee member)
2007-2009	Erin Carney, UNL Animal Science (Co-advised with P.S. Miller)
2007-2009	Celine Aperce, KSU Dept. of Animal Science (Committee member)

## **Ph.D.**

2022- present	Seidu Adams, UNL Animal Science (Committee member)
2018-present	Joshua Knapp, UNL Animal Science (Committee Chair)
2017-2020	Joice San Andres, UNL Animal Science (Committee Chair)
2017-2020	Shana (Barnett) Winkel, UNL Animal Science (Co-advised with L. Karr)
2015-present	Nirosh Aluthge, UNL Food Science & Technology (Committee member)
2014-2018	Dan van Sambeek, UNL Animal Science (Committee Chair)
2013-2017	Yanshuo Li, UNL Animal Science (Committee member)
2011-2014	Pamela Eusebio-Balcazar, UNL Animal Science (Committee member)
2010-2014	Wei Wang, UNL Animal Science (Committee member)
2009-2013	Huyen Tran, UNL Animal Science (Co-advised with J. Walter)
2008-2013	Justin Bundy, UNL Animal Science (Committee member)
2009-2012	Erin Carney-Hinkle, UNL Animal Science (Co-advised with P.S. Miller)
2006-2008	Jared Bates, UNL Animal Science (Committee member)

## **Fulbright Scholars**

2017-2020	Joice San Andres, UNL Animal Science (Committee Chair)
-----------	--

## **Visiting Scholars**

2014-15	Marco Monteiro de Lima (Universidade Estadual Paulista, Brazil)
---------	---

## **UNL/ISU CVM Summer Scholar Research Program**

2012	Craig Kreikemeier
------	-------------------

Project Title: Genome-wide Analysis of Indicators of Oxidative Stress and Immune Response in Pigs Challenged with Porcine Circovirus 2b

## Undergraduate Creative Activities and Research Experiences (UCARE)

2016-17	Alissa Martindale Project Title: The effects of a high protein corn by-product on growth performance of weanling pigs
2013-14	Holly Fujan Talia Everding Mackenzie Schneekloth Project Title: How do you feed a sick pig?
2012-13	Holly Fujan Project Title: Effects of dietary fiber on sow microbial ecology
2010-12	Whitney Burger Project Title: Evaluation of the fecal microbial profile in developing gilts fed high-fiber diets
2010-11	Sarah Tangeman Project Title: Immunoglobulin transport and neonatal Fc receptor gene expression in porcine jejunal epithelial cells treated with digested milk
2009-10	Mai Kuribayashi Project Title: The expression of nutrient and mineral transporters in porcine jejunal epithelial cells
2007-08	Meghan Hungerford Project Title: Beta-glucan as an immunomodulator in porcine immune cells and enterocytes

## I. Extramural Support

### Pending:

USDA-NIFA. \$1,149,998. 2021 Understanding genomic determinants and the functional role of the gut microbiome in swine towards improving feed efficiency. S. Fernando, **T.E. Burkey**, D.C. Ciobanu

### Grants-Funded (Total = \$1,470,569):

UNL CASNR Holling Family Teaching and Learning Innovation Grants. \$20,000. Animal Science Discovery (ASCI) Program. L. Karr, **T.E. Burkey**, L. Luck, K. Smith

BASF Corporation. \$71,669. 2019. Evaluation of Proso Millet as a partial or complete replacement for corn in growing-finishing diets of pigs. **T.E. Burkey**, P.S. Miller

Jeneil Biotech Inc. \$69,290. 2019. Lactobacillus fermentum LfQi6 as a Probiotic in Weaning and Weaned Piglets. **T.E. Burkey**, S.C. Fernando, P.S. Miller

White Dog Labs. \$51,790. 2019. Evaluation of Feeding MiruTyton on Growth Performance of Nursery Pigs. P.S. Miller, **T.E. Burkey**

Sunseo Omega 3 Inc. \$115,290. 2019. Evaluation of feeding GREEN GRASS to growing/finishing pigs on growth performance, gastrointestinal microbiome, carcass characteristics, tissue fatty acid profile, meat quality, and sensory characteristics. G. Sullivan, S. Fernando, **T.E. Burkey**, and P.S. Miller.

NUGut. \$21,472. 2018. Analysis pipeline for targeted AMR sequencing. **T. E. Burkey**

The John Ewing Company. \$9,523. 2017. The In vitro Effects of Rhamnolipids on the Inflammatory Response and Epithelial Integrity Using Model Porcine Jejunal Epithelial Cells (IPEC-J2). **T.E. Burkey**

Flint Hills Resources. \$23,400. 2016. Evaluating the effects of a high protein corn co-product on the growth performance of nursery pigs. P.S. Miller, and **T.E. Burkey**.

National Pork Board. \$15,600. 2016. Evaluation of the Kinetic v2 motion-sensing camera to develop a rapid and effective tool for identifying compromised pigs. T. Schmidt, **T.E. Burkey**, P.S. Miller, L. Perez, and E. Psota.

Nebraska Center on the Prevention of Obesity Diseases through Dietary Molecules (NPOD). \$100,000. 2015. A novel cecum cannulated human gut microbiota associated pig gastrointestinal model to study signals produced by the gut microbiome that interact with host gene expression leading to a lean or obese phenotype. S.C. Fernando, **T.E. Burkey**.

Pellet Technology USA. \$21,600. 2015. Digestion and Metabolism of Specialty-processed Corn Stover, Wheat Middlings, and High-protein Distillers Grains. P.S. Miller and **T.E. Burkey**.

Egg Industry Center. \$35,000. 2015. The effects of egg yolk on piglet growth, health, and gut microbial populations. P.S. Miller, **T.E. Burkey**, S. Fernando.

Nebraska Pork Producers Association. \$24,873. 2015. Effect of GnRH-II on Feed Efficiency and Immune Function of Growing/Finishing Pigs. B.R. White, and **T.E. Burkey**.

Nebraska Pork Producers Association. \$26,638. 2015. Refining a model to investigate the interactive effects of health status and nutrition on nutrient and energy utilization in pigs. **T.E. Burkey**, D.C. Ciobanu, S. Fernando, and P.S. Miller.

USDA Animal Health. \$95,000. 2013-2018. How do the effects of host-microbial interactions converge to shape gut health and nutrient metabolism in weaning pigs fed prebiotics? **T.E. Burkey**.

Nebraska Center on the Prevention of Obesity Diseases through Dietary Molecules (NPOD). \$100,000. 2014. A novel cecum cannulated human gut microbiota associated pig gastrointestinal model to study signals produced by the gut microbiome that interact with host gene expression leading to a lean or obese phenotype. S.C. Fernando, **T.E. Burkey**.

UNL Office of Research and Economic Development, Layman Seed Grant. \$19,900. 2013. Development of a cecum cannula humanized pig model to investigate the human microbiome. S. Fernando, **T.E. Burkey**, D. Hostetler, P.S. Miller.

National Pork Board. \$99,204. 2013. Impact of disease on amino acid requirements of growing pigs. A. Rakhshandeh, N. Gabler, K. Schwartz, C.F.M. de Lange, **T.E. Burkey**.

National Pork Board. \$121,478. 2012. A longitudinal assessment of the impact PRRSV has on grow-finisher pig tissue accretion and digestibility in commercial production. N. Gabler, **T.E. Burkey**, G. Gourley, M. FitzSimmons, K. Schwartz, C. Sparks, J. Patience, and L. Karriker.

Nebraska Pork Producers Association. \$30,318. 2012. Development of a Nutrition x Health Interaction Model to Study Nursery Pig Performance. P. Miller, **T.E. Burkey**, D. Ciobanu, and S. Fernando.

National Pork Board. \$69,000. 2012. The Effects of Disease Challenge (PRRS) on Pig Growth and Metabolic Pathways. N. Gabler, G. Gourley, T. Weber, M. Fitzsimmons, K. Schwartz, **T.E. Burkey**, J. Odle, and J. Dekkers.

Oxbow Animal Health. \$10,688. 2010. Effects of Vitamin C Supplementation Source on Health of Adult Guinea Pigs. **T.E. Burkey** and L. Karr-Lillienthal.

Nebraska Pork Producers Association. \$40,000. 2010. Using high-fiber diets to limit energy intake in developing gilts: effects on puberty, reproduction, culling rates, lifetime productivity, and progeny health and growth. R. Johnson, D. Ciobanu, P. Miller, **T.E. Burkey**, B. White, and J. Wood.

Pioneer Hi-Bred. \$43,500. 2009. Nutritional equivalency study of transgenic maize grain containing event DP-098140-06 & transgenic soybeans containing event DP-356043-5 on swine performance & carcass quality traits. P.S. Miller and **T.E. Burkey**.

Pioneer Hi-Bred. \$43,500. 2008. Evaluation of soybean meal with the genetically modified input trait DP-305423-1 when fed to swine. P.S. Miller and **T.E. Burkey**.

Pioneer Hi-Bred. \$34,684. 2008. Evaluation of soybean meal with the genetically modified input trait DP-356043-5 when fed to swine. P.S. Miller and **T.E. Burkey**.

USDA Animal Health. \$42,000. 2007-12. Does dam parity affect progeny growth performance and health status? **T.E. Burkey**.

Monsanto Company. \$19,152. 2007. Estimation of the lysine requirement for terminal-sired pigs: A lysine titration study. P.S. Miller, R.K. Johnson, and **T.E. Burkey**.

Nebraska Corn Board. \$26,000. 2007. Incorporation of 40% distillers dried grains with solubles (DDGS) in diets for growing-finishing pigs: Potential for interactions with dietary Paylean supplementation. P.S. Miller, **T.E. Burkey**, S.J. Jones, D.E. Reese, and T. Carr.

USDA Animal Health. \$70,000. 2007. Does dam parity affect progeny health status and growth performance? **T.E. Burkey**.

**Grants-Not funded:**

National Pork Board. \$569,166. 2021. Improving feed efficiency in swine through microbiome establishment. S. Fernando, **T.E. Burkey**, P.S. Miller

USDA-NIFA. \$649,999. 2021. Understanding genomic determinants and the functional role of the gut microbiome in swine towards improving feed efficiency. S.C. Fernando, **T.E. Burkey**, D.C. Ciobanu.

USDA-NIFA. \$499,999. 2020. Understanding genomic determinants and the functional role of the gut microbiome in swine towards improving feed efficiency. S.C. Fernando, **T.E. Burkey**, D.C. Ciobanu.

USDA-NIFA. \$500,000. 2019. Understanding Gastrointestinal microbiota function and developing novel nutritional strategies to increase feed efficiency in swine. S.C. Fernando, **T.E. Burkey**.

USDA-NIFA. \$500,000. 2018. Uncovering antimicrobial gene reservoirs and development of direct fed microbials as an alternative to antibiotics. S.C. Fernando, **T.E. Burkey**, P.S. Miller.

Jeneil Biotech Inc. \$30,765. 2018. Evaluating the effects of rhamnolipid (JBR 425) on nutrient digestibility and growth performance of nursery pigs. **T.E. Burkey**, P.S. Miller, and D.M. van Sambeek

USDA-NIFA. \$499,999. 2018. Uncovering antimicrobial gene reservoirs and development of direct fed microbials as an alternative to antibiotics. S.C. Fernando, **T.E. Burkey**, P.S. Miller.

National Pork Board. \$1,999,971. 2018. Multidisciplinary approach to improving sow and piglet survival from implantation to market. B. Mote, **T.E. Burkey**, D. Keshwani, L. Perez, E. Psota, T. Schmidt, Y. Shi, B. White.

National Pork Board. \$28,965. 2018. Evaluating the effects of rhamnolipid on nutrient digestibility and growth performance of nursery pigs. D.M. van Sambeek, P.S. Miller, and **T.E. Burkey**.

USDA-NIFA. \$349,905. 2017. Automated Activity Tracking for Well Being and Growth-Rate Efficiency Monitoring of Group-Housed Pigs Using Depth-Enabled Video Tracking. E. Psota, B. Mote, **T.E. Burkey**, L. Perez, and T. Schmidt.

NSF. \$480,263. 2017. CPS: Small: Long-Term Multi-Object Tracking of Homogeneous Targets. E. Psota, B. Mote, **T.E. Burkey**, L. Perez, and T. Schmidt.

National Pork Board. \$48,867. 2016. Energy restriction during gilt development increases sow lifetime production efficiency and progeny health and growth. B. Mote, P.S. Miller, D.C. Ciobanu, and **T.E. Burkey**.

DHHS-NIH-Nat Inst Health. \$1,673,480. 2016. Understanding the effect of early administration of antibiotics on the gut microbiome and its long-term effects on the obesity phenotype in humans and growth performance in pigs using a gnotobiotic pig model. S.C. Fernando, and **T.E. Burkey**.

USDA-NIFA. \$499,996. 2016. Characterizing emerging and under-researched viral and zoonotic pathogens in the swine production system. B. Mote, P.S. Miller, **T.E. Burkey**, and S.C. Fernando.

USDA-NIFA-AFRI. \$295,752. 2016. Behavioral Analysis and Health State Monitoring of Group-Housed Pigs using Depth-Enabled Video Tracking. T. Schmidt, L. Perez, B. Mote, **T.E. Burkey**, and E. Psota.

Nebraska Environmental Trust. \$435,958. 2015. Improving soil health using biofertilizers. S.C. Fernando, **T.E. Burkey**, P. Kononoff.

USDA-NIFA. \$361,384. 2015. Protecting and improving swine production and wellbeing through minimizing the impact of inevitable health challenges. **T.E. Burkey**, S.C. Fernando.

USDA-NIFA-AFRI. \$499,877. 2015. Identifying emerging viral zoonotic pathogens in swine using a novel high throughput screening method and identifying phages against zoonotic bacterial pathogens in swine for phage therapy. S. Fernando, **T.E. Burkey**, J. Clarke, P.S. Miller, F. Osorio, and Y. Zhou.

National Pork Board. \$44,811. 2015. Utilization of Kinect and infrared imaging systems to determine immune compromised swine prior to exhibiting clinical symptoms. T. Schmidt, **T.E. Burkey**, P.S. Miller, L. Perez, and E. Psota.

USDA-NIFA-AFRI. \$99,988. 2014. A novel cecum cannulated human gut microbiota associated pig gastrointestinal model to study microbial triggers that influence the obesity phenotype in children. S. Fernando, **T. E. Burkey**, D. Hostetler, and P.S. Miller.

NIH. \$1,757,890. 2014. Humanized pig model for characterizing the microbiota in Clostridium difficile infection and development of a probiotic microbial community for treatment of Clostridium difficile infection. S. Fernando, **T. E. Burkey**, D. Hostetler, and P.S. Miller.

USDA-NIFA-AFRI. \$438,264. 2014. Does nutrition, microbial ecology, and health status interact to shape nutrient utilization and efficiency in pigs? **T.E. Burkey**, S. Fernando, P.S. Miller, D. Ciobanu.

USDA-NIFA-AFRI. \$499,242. 2014. Understanding the interaction between rumen microbes and host metabolism during milk fat depression in dairy cows. P. Kononoff, **T.E. Burkey**, S. Fernando, D. Hostetler.

National Pork Board. \$85,821. 2013. Refinement of a nutrition x health interaction model to investigate nutrient and energy utilization in pigs. T.E. Burkey, D.C. Ciobanu, S. Fernando, P.S. Miller.



NIH. \$385,838. 2013. Gut microbial triggers and host microbe interactions that influence the obesity-associated phenotype. S. Fernando, **T.E. Burkey**, D. Hostetler, P.S. Miller.

USDA-AFRI. \$499,568. 2013. How do the effects of host-microbial interactions converge to shape nutrient metabolism in weaning pigs fed prebiotics? **T.E. Burkey**, D.C. Ciobanu, S. Fernando, P.S. Miller, J. Walter.

USDA-NIFA. \$799,966. 2012. Reducing carriage of Salmonella in swine by anti-adherence agents: an alternative to antibiotics. R. Hutkins, **T.E. Burkey**, J. Walter, J. DeRouchey, A. Ramer-Tait, A.T. Hotchkiss.

Department of Defense. \$178,276. 2012. A cecum cannulated human gut microbiota associated pig gastrointestinal model to understand microbial gene expression in inflammatory bowel disease patients. S. Fernando, E. Moriyama, D. Hostetler, P. Miller, and **T.E. Burkey**.

American Diabetes Association. \$374,870. Gut microbial triggers and host microbe interactions that influence the obesity-associated phenotype. S. Fernando, **T.E. Burkey**, P. Miller, D. Hostetler.

National Pork Board. \$140,082. 2012. Impact of disease on protein and amino acid metabolism in growing pigs. A. Rakhshandeh, N. Gabler, K. Schwartz, **T.E. Burkey**.

USDA-AFRI. \$75,000. 2012. Pre-Doctoral Fellowship: Determining the effect of dam parity on passive immunity and gastrointestinal microbiota using a crossfostering model in swine. E. Hinkle, **T.E. Burkey**, P. Miller, J. Walter, and R. Johnson.

USDA-AFRI. \$371,924. 2011. Is Nutrient Metabolism Maximized in Weanling Pigs Fed Prebiotics. **T.E. Burkey**, D.C. Ciobanu, S. Fernando. P.S. Miller, and J. Walter.

DHHS-National Institutes for Health. \$356,978. 2011. A New Humanized Cannulated Pig Model to Study Gut Microbial Communities and their Roles in Infants. S. Fernando, **T.E. Burkey**, P.S. Miller, and R. Moxley.

American Meat Institute. \$180,000. 2011. A new innovative approach to control salmonella in pork using natural bacterial competitors. S. Fernando, **T.E. Burkey**, and P.S. Miller.

National Institutes for Health - PAR-10-276: Dual Purpose with Dual Benefit: Research in Biomedicine and Agriculture Using Agriculturally Important Domestic Species (R01). \$527,652. 2010. Synbiotics: A function driven intervention for control of *Salmonella* reservoirs in swine. **T.E. Burkey**, R. Hutkins, P. Miller, R. Moxley, and J. Walter.

USDA-AFRI. \$2,496,613. 2010. Systematic approach to determining diet influence and intervention on shiga toxin-producing *E. coli* by feedlot cattle. G. Erickson, D. Smith, R. Moxley, T. Klopfenstein, R. Hutkins, **T.E. Burkey**, J. Keen, J. Walter.

UNL-IANR Strategic Investments. \$306,266. 2010. A function driven approach to develop synbiotics for pre-harvest reduction and control of Salmonella in swine. **T.E. Burkey**, J. Walter, R. Hutkins, R. Moxley.

UNL-IANR Strategic Investments. \$60,000. 2010. Characterization of the relationship between animal growth and microbial ecology in weanling pigs fed prebiotics. P. Miller, **T.E. Burkey**, and D. Ciobanu.

DHHS-NIH-Nat Inst Health. \$538,125. 2009. A metagenomic exploration of the gut microbiome to identify bacterial systems for the removal of toxic gluten epitopes. J. Walter, S. Taylor, **T.E. Burkey**, and P. S. Miller.

USDA-AFRI. \$389,144. 2009. A function driven approach to develop synbiotics for pre-harvest reduction and control of Salmonella in swine. **T.E. Burkey**, J. Walter, R. Hutkins, and R. Moxley.

Nebraska Wheat Board. \$48,400. 2009. A metagenomic exploration of the gut microbiome to identify bacterial systems that remove gluten epitopes involved in celiac disease. J. Walter, S. Taylor, and **T.E. Burkey**.

National Pork Board. \$50,000. 2008. A function driven approach to develop synbiotics for the reduction and control of salmonella in pigs. **T.E. Burkey**, J. Walter, R. Hutkins, and P.S. Miller.

USDA CSREES NIFSI. \$599,015. 2008. A function driven approach to develop a synbiotic strategy for the reduction and control of Salmonella in pigs. **T.E. Burkey**, J. Walter, R. Hutkins, R. Moxley, D. Reese, J.E. Minton.

Nebraska Pork Producers Association. \$24,750. 2008. Effect of corn distillers dried grains with solubles and lactose on weanling pig performance and gastrointestinal health. **T.E. Burkey**, P.S. Miller, and D.E. Reese.

Nebraska Corn Board. \$30,054. 2007. Effect of distillers grains with solubles (DDGS) on weanling pig performance and gastrointestinal health. **T.E. Burkey**, J. Walter, D. Reese, P.S. Miller.

National Pork Board. \$40,757. 2006. Does dam parity affect progeny health status? **T.E. Burkey**, R.K. Johnson, P.S. Miller.

National Science Foundation. \$125, 000. 2006. Acquisition of a real-time, quantitative real-time PCR machine for gene expression profiling and functional genomic studies. J. Wood, A. Cupp, **T.E. Burkey**.

#### **Gifts and Gifts-in-kind:**

Pfizer Animal Health. \$600. 2009. RespiSure vaccine and for subsequent analytical analyses. **T.E. Burkey**.

## **J. Patents Issued**

U.S. Patent and Trademark Office, Patent No. US 9,125,935 B1. September 8, 2015. Probiotics and methods of obtaining same. J. Walter, R. Hutkins, and **T.E. Burkey**.

## **K. Bibliography**

### **Publications while at UNL where I was the PI or Co-PI**

1. San Andres, J.V., D.M. van Sambeek, S. Kinstler, M.D. Trenhaile-Grannemann, S.M. Winkel P.S. Miller, **T.E. Burkey**. 2021. Effects of prebiotics on biomarkers of intestinal injury, inflammation, and gut microbes of nursery pigs. *Livestock Science*. Under Review.
2. Li, Y.S., M.D. Trenhaile-Grannemann, D.M. van Sambeek, K.C. Moore, S.M. Barnett, S.C. Fernando, **T.E. Burkey**, and P.S. Miller. 2021. Effects of mannan oligosaccharides and *Lactobacillus mucosae* on growth performance, immune response, and gut health of weanling pigs challenged with *Escherichia coli* lipopolysaccharides. *J. Anim. Sci.* 99(12):skab286. doi: 10.1093/jas/skab286.
3. Winkel, S., T. Burkey, D. Brink, and L. K. Karr. 2019. What influences students to choose animal science as a their major. *NACTA J.* Nov 2019-Oct 2020.
4. Winkel, S., T. Burkey, and L. K. Karr. 2019. Veterinary Student Case Study Project Leads to Development of Professional Skills. *NACTA J.* Nov 2019-Oct 2020.

5. Aluthge, N. D., W. Tom, A. Bartenslager, **T.E. Burkey**, P.S. Miller, K.D. Heath, C. Kreikemeier-Bower, H. Kittana, R.J. Schmaltz, A.E. Ramer-Tait and S.C. Fernando. 2020. Differential longitudinal establishment of human fecal bacterial communities in germ-free porcine and murine models. *Comms. Bio.* 3(1):760. doi: 10.1038/s42003-020-01477-0
6. Aluthge, N. D., W. Tom, **T.E. Burkey**, K.D. Heath, C. Kreikemeier-Bower, P.S. Miller, D.E. Hostetler, D. E., and S.C. Fernando. 2019. Novel human-associated cannulated gnotobiotic piglet model for human microbiota studies. *Nature Methods*. (Manuscript in preparation)
7. Aluthge, N. D., W. Tom, **T.E. Burkey**, K.D. Heath, C. Kreikemeier-Bower, P.S. Miller, D.E. Hostetler, D. E., and S.C. Fernando. 2019. Host-microbiota transcriptional changes in obesity in a human gut microbiota-associated gnotobiotic piglet model. *Microbiome J.* (Manuscript in preparation)
8. Carney-Hinkle, E.E., H.T. Tran, J.W. Bundy, J. Walter, P.S. Miller, and **T.E. Burkey**. 2019. Effect of dam parity (parity 1 vs. 3) on litter performance, transfer of passive immunity, and fecal microbiota. *Transl. Anim. Sci.* (Manuscript in preparation)
9. Aluthge, N.D., D.M. van Sambeek, E.E. Carney-Hinkle, Y.S. Li, S.C. Fernando, and T.E. Burkey 2019. BOARD INVITED REVIEW: The pig microbiota and the potential for harnessing the power of the microbiome to improve growth and health. *J. Anim. Sci.* 97:3741-3757. doi: 10.1093/jas/skz208
10. San Andres, J.V., G.A. Mastromano, Y.S. Li, H. Tran, J.W. Bundy, P.S. Miller, and T.E. Burkey. 2018. The effects of prebiotics on growth performance and in vitro immune biomarkers in weaned pigs. *Transl. Anim. Sci.* 3:1315-1325. doi.org/10.1093/tas/txz129
11. Winkel, S.M., M.D. Trenhaile-Grannemann, D.M. Van Sambeek, P.S. Miller, J. Salcedo, D. Barile, and **T.E. Burkey**. 2018. Effects of energy restriction during gilt development on milk nutrient profile, progeny biomarkers, and milk oligosaccharides. *J. Anim. Sci.* 96:3077-3088. doi: 10.1093/jas/sky212.
12. Tran, H.T., C.L. Anderson, S.C. Fernando, J.W. Bundy, P.S. Miller, and **T.E. Burkey**. 2018. Effects of spray-dried porcine plasma on fecal microbiota in nursery pigs. *J. Anim. Sci.* 3;96(3):1017-1031. doi: 10.1093/jas/skx034.
13. Schweer, W., K. Schwartz, J. F. Patience, L. Karriker, C. Sparks, M. Weaver, M. Fitzsimmons, **T.E. Burkey** and N.K. Gabler. 2017. Porcine Reproductive and Respiratory Syndrome virus reduces feed efficiency, digestibility, and lean tissue accretion in grow-finish pigs. *Transl. Anim. Sci.* 1: doi:10.2527/tas2017.0054
14. van Sambeek, D.M., H. Tran, S.C. Fernando, D.C. Ciobanu, P.S. Miller, and **T.E. Burkey**. 2016. Alteration of the pig intestinal microbiome when vaccinated against or inoculated with porcine circovirus 2 using a multivariate analysis model. *J. Anim. Sci.* 94(Suppl. 3):387-90. doi:10.2527/jas.2015-9861
15. Kreikemeier, C., T. Engle, K. Lucot, S. Kachman, **T.E. Burkey**, and D.C. Ciobanu. 2015. Genome-wide Analysis of TNF-alpha Response in Pigs Challenged with Porcine Circovirus 2b. *Animal Genetics.* *Anim. Genet.* 46:205-8. doi: 10.1111/age.12262
16. Tran, H., J.W. Bundy, Y.S. Li, E.E. Carney-Hinkle, P. S. Miller, and **T.E. Burkey**. 2014. Effects of spray-dried porcine plasma on growth performance, immune response, total antioxidant capacity, and gut integrity of nursery pigs. *J. Anim. Sci.* 92:4494-4504. doi: 10.2527/jas.2014-7620
17. Tran, H., J.W. Bundy, E.E. Carney-Hinkle, J. Walter, **T.E. Burkey**, and P.S. Miller. 2014. Effects of a yeast-dried milk product in creep and phase-1 nursery diets on growth performance,

- circulating immunoglobulin A, and fecal microbiota of nursing and nursery pigs. *J. Anim. Sci.* 92:4518-4530. doi: 10.2527/jas.2014-7574
18. Carney-Hinkle, E.E., H. Tran, J.W. Bundy, R. Moreno, P.S. Miller, and **T.E. Burkey**. 2013. Effect of dam parity on litter performance, transfer of passive immunity, and progeny microbial ecology. *J. Anim. Sci.* 91:2885-93.
  19. Tran, H., R. Moreno, E.E. Hinkle, J.W. Bundy, J. Walter, **T.E. Burkey**, and P.S. Miller. 2012. Effects of lactose and yeast-dried milk on growth performance, fecal microbiota, and immune parameters of nursery pigs. *J. Anim. Sci.* 90:3049-59.
  20. Tran, H., R. Moreno, E.E. Hinkle, J.W. Bundy, J. Walter, **T.E. Burkey**, and P.S. Miller. 2012. Effects of corn distillers dried grains with solubles on growth performance and health status indicators in weanling pigs. *J. Anim. Sci.* 90:790-801.

#### **Publications while at UNL where I was a collaborator:**

21. Batson, K.L., A.C. Neujahr, **T.E. Burkey**, S.C. Fernando, M.D. Tokach, J.C. Woodworth, R.D. Goodband, J.M. DeRouchey, J.T. Gebhardt, H.I. Calderon. 2021. Effect of fiber sources and crude protein level on nursery pig performance and fecal microbial communities. *J. Anim. Sci.* 99 (12): skab343. Doi: 10.1093/jas/skab343
22. Sutton, K.M., C.W. Eaton, T. Borza, **T.E. Burkey**, B.E. Mote, J.D. Loy, D.C. Ciobanu. 2022. Sequence diversity and enhanced detection of atypical Porcine Pestivirus infections. *J. Anim. Sci.* 100(1):skab360. doi: 10.1093/jas/skab360.
23. Gebhardt, J.T., K.A. Thomson, J.C. Woodworth, S.S. Dritz, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, C.K. Jones, R.A. Cochrane, M.C. Niederwerder, S.C. Fernando, W. Abbas, and **T.E. Burkey**. 2020. Effect of dietary medium chain fatty acids on nursery pig growth performance, fecal microbial composition, and mitigation properties against porcine epidemic diarrhea virus following storage. *J. Anim. Sci.* Nov 23. pii: skz358. doi: 10.1093/jas/skz358. [Epub ahead of print]
24. Walker, L.R. T.B. Engle, H. Vu, E.R. Tosky, D.J. Nonneman, T.P.L. Smith, T. Borza, **T.E. Burkey**, G.S. Plastow, S.D. Kachman, D.C. Ciobanu. 2018. Synaptogyrin-2 influences replication of Porcine circovirus 2. *PLoS Genet.* 14(10): e1007750. doi.org/10.1371/journal.pgen.1007750
25. Niederwerder, M.C., L.A. Constance, R.R.R. Rowland, Abbas. W., S.C. Fernando, M.L. Potter, M.A. Sheahan, **T.E. Burkey**, R.A. Hesse, and A.G. Cino-Ozuna. 2018. Fecal microbiota transplantation is associated with reduced morbidity and mortality in porcine circovirus associated disease. *Front. Microbiol.* 9:1631. doi: 10.3389/fmicb.2018.01631
26. Williams, H.E., R.A. Cochrane, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, M.D. Tokach, C.K. Jones, S.C. Fernando, **T.E. Burkey**, Y.S. Li, R.D. Goodband, and R.G. Amachawadi. 2018. Effects of dietary supplementation of formaldehyde and crystalline amino acids on gut microbial composition of nursery pigs. *Sci. Rep.* 8:8164. doi: 10.1038/s41598-018-26540-z
27. Duar, R.M., S.A. Frese, S.C. Fernando, **T.E. Burkey**, G. Tasseva, D.A. Peterson, J. Blom, C.Q. Wenzel, C.M. Szymanski, and J. Walter. 2017. Experimental evaluation of host adaptation of *Lactobacillus reuteri* to different vertebrate species. *Appl. Environ. Microbiol.* 31;83(12). pii: e00132-17. doi: 10.1128/AEM.00132-17.
28. Li, Y.S., H. Tran, J. W. Bundy, **T. E. Burkey**, B. J. Kerr, M. K. Nielsen, and P. S. Miller. 2016. Evaluation of collection method and diet effects on apparent digestibility and energy values of swine diets. *J. Anim. Sci.* 94:2415-24. doi: 10.2527/jas.2016-0275
29. Krumbeck, J.A., M.X. Maldonado-Gomez, I. Martinez, S.A. Frese, **T.E. Burkey**, K. Rasineni, A. Ramer-Tait, E.N. Harris, R.W. Hutkins, and J. Walter. 2015. In vivo selection to identify bacterial

strains with enhanced ecological performance in synbiotic applications. *Appl. Environ. Microbiol.* 81:2455-65. doi: 10.1128/AEM.03903-14

30. Duar, R., K. Clark, P. Patil, C. Hernandez, S. Bruning, **T. E. Burkey**, N. Madayiputhiya, S. Taylor, and J. Walter. 2015. Identification and characterization of intestinal lactobacilli strains capable of degrading immunotoxic peptides present in gluten. *J. Appl. Microbiol.* 118(2):515-527. doi: 10.1111/jam.12687
31. Engle, T.B., E. E. Jobman, T. W. Moural, A. M. McKnite, J. W. Bundy, S. Y. Barnes, E. H. Davis, J. A. Galeota, **T.E Burkey**, G. S. Plastow, S. D. Kachman, and D. C. Ciobanu. 2014. Variation in time and magnitude of immune response and viremia in experimental challenges with Porcine circovirus 2b. *BMC Vet. Res.* 10(1):286. doi: 10.1186/s12917-014-0286-4
32. Davis, B.L., J.N. Fraser, **T.E. Burkey**, K.A. Skjolaas, S.S. Dritz, B.J. Johnson, and J.E. Minton. 2010. Oral inoculation with *Salmonella enterica* serovars Typhimurium or Choleraesuis promotes divergent responses in the somatotropic growth axis of swine. *J. Anim. Sci.* 88:1642-8.
33. Aperce, C.E., **T.E. Burkey**, B. Kukanich, B.A. Crozier-Dodson, S.S. Dritz, and J.E. Minton. 2010. Interaction of *Bacillus spp.* and *Salmonella enterica* serovar Typhimurium in immune/inflammatory signaling from swine intestinal epithelial cells. *J. Anim. Sci.* 88:1649-56.

#### **Publications prior to arriving at UNL:**

34. **Burkey, T.E.**, K.A. Skjolaas, S.S. Dritz and J.E. Minton. 2009. Expression of porcine Toll-like receptor 2, 4 and 9 gene transcripts in the presence of lipopolysaccharide and *Salmonella enterica* serovars Typhimurium and Choleraesuis. *Vet. Immunol. Immunopathol.* 130:96-101.
35. **Burkey, T.E.**, K.A. Skjolaas, and J.E. Minton. 2009. Invited Review: Porcine Mucosal Immunity of the Gastrointestinal Tract. *J. Anim. Sci.* 87:1493-501.
36. **Burkey, T. E.**, K. A. Skjolaas, S. S. Dritz, and J. E. Minton. 2007. Expression of Toll-like receptors, interleukin 8, macrophage migration inhibitory factor, and osteopontin in tissues from pigs challenged with *Salmonella enterica* serovar Typhimurium or serovar Choleraesuis. *Vet. Immunol. Immunopathol.* 115:309-19.
37. Skjolaas, K. A., **T. E. Burkey**, S.S. Dritz, and J. E. Minton. 2007. Effects of *Salmonella enterica* serovar Typhimurium, or serovar Choleraesuis, *Lactobacillus reuteri* and *Bacillus licheniformis* on chemokine and cytokine expression in the swine jejunal epithelial cell line, IPEC-J2. *Vet. Immunol. Immunopathol.* 115:299-308.
38. Fraser, J.N., B.L. Davis, K.A. Skjolaas, **T.E. Burkey**, S.S. Dritz, B.J. Johnson, and J.E. Minton. 2007. Effects of feeding *Salmonella enterica* serovar Typhimurium or serovar Choleraesuis to weaned pigs on growth performance and circulating insulin-like growth factor-I, tumor necrosis factor alpha, and interleukin-1 beta. *J. Anim. Sci.* 85:1161-7.
39. Skjolaas, K.A., **T.E. Burkey**, S.S. Dritz and J.E. Minton. 2006. Effects of *Salmonella enterica* serovars Typhimurium (ST) and Choleraesuis (SC) on chemokine and cytokine expression in swine ileum and jejunal epithelial cells. *Vet. Immunol. Immunopathol.* 111:199-209.
40. Johnson, B.J., S. S. Dritz, K. A. Skjolaas-Wilson, **T. E. Burkey**, and J. E. Minton. 2005. Interactive responses in gut immunity, and systemic and local changes in the IGF system in nursery pigs in response to *Salmonella enterica* serovar Typhimurium. *J. Anim. Sci.* 83: p. E48-56.
41. **Burkey, T.E.** S. S. Dritz, J. C. Nietfeld, B. J. Johnson, and J. E. Minton. 2004. Effect of dietary mannanoligosaccharide and sodium chlorate on the growth performance, acute-phase response, and bacterial shedding of weaned pigs challenged with *Salmonella enterica* serotype Typhimurium. *J. Anim. Sci.* 82:397-404.

## University/Popular Press Publications

1. Kinstler, S., P.S. Miller, T.E. Burkey, S.C. Fernando, and H. Vu. 2019. Effects of a soy product on gut health and the immune system in nursery pigs. *Nebraska Pork Producers-Pork Talk*. Vol. 51, No. 4 (July/August, 2019).
2. L.R. Walker. 2018. Solving the 2.8 billion base pair puzzle of PCV2. *National Hog Farmer*. <https://www.nationalhogfarmer.com/animal-health/solving-28-billion-base-pair-puzzle-pcv2>
3. J. Shike. 2018. Gene discovery brings swine industry closer to broad virus protection. *Pork Business*. <https://www.porkbusiness.com/article/gene-discovery-brings-swine-industry-closer-broad-virus-protection>
4. J.T. Gebhardt, M.C. Niederwerder, S.C. Fernando, W. Abbas, **T.E. Burkey**, K.A. Thomson, J.C. Woodworth, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, and S.S. Dritz. 2018. Effect of Medium Chain Fatty Acid Supplementation on Nursery Pig Fecal Microbial Populations. Kansas State University Swine Industry Day. Kansas Agricultural Experiment Station Research Reports: Volume 4, Issue 9.
5. S.M. Winkel and **T.E. Burkey**. Milk oligosaccharides and gut microbes may interact to shape weanling pig health and growth. *Nebraska Pork Producers - Pork Talk*. Vol. 50, No. 6 (November/December, 2018).
6. H. Williams, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, M.D. Tokach, R.D. Goodband, **T.E. Burkey**, and S. Li. 2017. Effects of Crystalline Amino Acid Concentrations With or Without Formaldehyde Treatment of Diets on Nursery Pig Growth Performance and Fecal Bacterial Concentration. Kansas State University Swine Industry Day. Kansas Agricultural Experiment Station Research Reports: Volume 3, Issue 7.
7. Burkey, T.E. 2014. UNL Research Update. *Nebraska Pork Talk*. *Nebraska Pork Producers - Pork Talk*. 46:1 (Spring, 2014).
8. Tran, H., **T.E. Burkey**, and P.S. Miller. 2012. Effects of *Lactobacillus* on the expression of sodium-dependent glucose transporter (SGLT) 1 and Toll-like receptor 4. *Nebraska Swine Report*. Ext. Publ. EC11-219:XXX. Univ. of Nebraska, Lincoln.
9. Hinkle, E.E., H. Tran, J.W. Bundy, P.S. Miller, and **T.E. Burkey**. 2012. Effect of dam parity on growth performance of weaned pigs. *Nebraska Swine Report*. Ext. Publ. EC11-219:XXX. Univ. of Nebraska, Lincoln.
10. Bohnert, T.P., A.M. McKnite, J.G. Galeota, T.W. Moural, S.P. Harris, **T.E. Burkey**, R.K. Johnson, and D.C. Ciobanu. 2011. Variation in response to infection in experimental challenges with porcine circovirus 2b. *Nebraska Swine Report*. Ext. Publ. EC11-219:31-35. Univ. of Nebraska, Lincoln.
11. Tran, H., J.W. Bundy, E.E. Hinkle, **T.E. Burkey**, and P.S. Miller. 2011. Effects of incorporation of a yeast-dried milk product in creep feeding and phase-1 nursery diets on growth performance and circulating immunoglobulin A of pigs. *Nebraska Swine Report*. Ext. Publ. EC11-219:16-19. Univ. of Nebraska, Lincoln.
12. Hinkle, E.E., H. Tran, J.W. Bundy, M.W. Anderson, J.M. Perkins, P.S. Miller, and **T.E. Burkey**. 2011. The effect of dam parity on milk yield. *Nebraska Swine Report*. Ext. Publ. EC11-219:36-37. Univ. of Nebraska, Lincoln.

13. Hinkle, E.E., H. Tran, J.W. Bundy, M.W. Anderson, J.M. Perkins, P.S. Miller, and **T.E. Burkey**. 2011. Effect of dam parity on litter performance, passive immunity, and fecal microbial populations (parity 1 vs. 3). Nebraska Swine Report. Ext. Publ. EC11-219:38-41. Univ. of Nebraska, Lincoln.
14. Moreno, R., P.S. Miller, **T.E. Burkey**, S.J. Jones, S.L. Cuppett, T.P. Carr, T.F. Jones, and R.M. Diedrichsen. 2010. The effect of corn distillers Dried grains with solubles (DDGS) on carcass quality, color stability, and sensory characteristics of pork. Nebraska Swine Report. Ext. Publ. EC10-219:16-21. Univ. of Nebraska, Lincoln.
15. Bundy, J.W., P.S. Miller, R. Moreno, **T.E. Burkey**, E. Hinkle, and H. Tran. 2010. Utilizing dried distillers grains with solubles and phytase to alleviate phosphorus costs in finishing swine. Nebraska Swine Report. Ext. Publ. EC10-219:21-24. Univ. of Nebraska, Lincoln.
16. Bundy, J.W., P.S. Miller, R. Moreno, **T.E. Burkey**, E. Hinkle, and H. Tran. 2010. Lysine requirement for barrows fed ractopamine. Nebraska Swine Report. Ext. Publ. EC10-219:27-29. Univ. of Nebraska, Lincoln.
17. Carney, E.E., T. Tran, J.W. Bundy, R. Moreno, M.W. Anderson, J.M. Perkins, D.E. Reese, P.S. Miller, J. Walter, and **T.E. Burkey**. 2010. Effect of dam parity on progeny gastrointestinal microbiota. Nebraska Swine Report. Ext. Publ. EC10-219:41-43. Univ. of Nebraska, Lincoln.
18. Tran, H., J.W. Bundy, E.E. Hinkle, R. Moreno, J. Walter, **T.E. Burkey**, and P.S. Miller. 2010. Effects of lactose and co-dried milk-yeast on growth performance and gastrointestinal health of nursery pigs. EC10-219:30-37. Univ. of Nebraska, Lincoln.
19. Tran, H., R. Moreno, J.W. Bundy, E.E. Hinkle, **T.E. Burkey**, and P.S. Miller. 2010. Effects of distillers dried grains with solubles and lactose on growth performance of nursery pigs. Nebraska Swine Report. Ext. Publ. EC10-219:24-27. Univ. of Nebraska, Lincoln.
20. Tran, H., P.S. Miller, and **T.E. Burkey**. 2010. Effects of crystalline lactose on expression of sodium-dependent glucose transporter (SGLT)-1 mRNA. Nebraska Swine Report. Ext. Publ. EC10-219:38-40. Univ. of Nebraska, Lincoln.
21. Tran, H., P.S. Miller, and **T.E. Burkey**. 2009. In vivo and in vitro expression of porcine zinc transporter (ZnT) 1 mRNA. Nebraska Swine Report. Ext. Publ. EC09-219:22-24. Univ. of Nebraska, Lincoln.
22. Carney, E.E., H. Tran, J.W. Bundy, R. Moreno, P.S. Miller, and **T.E. Burkey**. 2009. Effect of dam parity on growth performance and immunity of weaned pigs. Nebraska Swine Report. Ext. Publ. EC09-219:30-32. Univ. of Nebraska, Lincoln.
23. Carney, E.E., H. Tran, J.W. Bundy, R. Moreno, M.W. Anderson, J. M. Perkins, P.S. Miller, and **T.E. Burkey**. 2009. Effect of dam parity on litter performance and passive immunity. Nebraska Swine Report. Ext. Publ. EC09-219:25-29. Univ. of Nebraska, Lincoln.
24. Moreno, R., P.S. Miller, **T.E. Burkey**, M.W. Anderson, J. Perkins, D. McClure, and T. McGargill. 2009. Feeding value of diets for growing-finishing pigs with varying concentrations of corn distillers dried grain with solubles (DDGS). Nebraska Swine Report. Ext. Publ. EC09-219: 7-10. Univ. of Nebraska, Lincoln.
25. **Burkey, T.E.**, P.S. Miller, R. Moreno, and E.E. Carney. 2009. Effect of corn dried distillers grains with solubles (DDGS) on growth performance and carcass characteristics of growing-finishing gilts with previous exposure to DDGS in the nursery. Nebraska Swine Report. Ext. Publ. EC09-219:3-6. Univ. of Nebraska, Lincoln.
26. Carney, E.E., H. Tran, J.W. Bundy, R. Moreno, M.W. Anderson, J. M. Perkins, P.S. Miller, and **T.E. Burkey**. 2018. Dam parity influences litter performance, pig health. National Hog Farmer. <https://www.nationalhogfarmer.com/health-diseases/1215-damn-parity-influences-performances>

27. **Burkey, T.E.**, P.S. Miller, R.K. Johnson, D.E. Reese, and R. Moreno. 2008. Does dam parity affect progeny health status? Nebraska Swine Report. Ext. Publ. EC08-219:33–36. Univ. Nebraska, Lincoln.
28. **Burkey, T.E.**, P.S. Miller, S.S. Shepherd, R. Moreno, and E.E. Carney. 2008. Effects of increasing concentrations of distillers dried grains with solubles (DDGS) on growth performance of weanling pigs. Nebraska Swine Report. Ext. Publ. EC08-219:12–13. Univ. Nebraska, Lincoln.
29. Moreno, R., P.S. Miller, **T.E. Burkey**, M.W. Anderson, L.R. Albrecht, J. Perkins, D. McClure, and T. McGargill. 2008. The effect of corn distillers dried grain with solubles (DDGS) on growth performance of growing-finishing pigs. Nebraska Swine Report. Ext. Publ. EC08-219:5–8. Univ. Nebraska, Lincoln.
30. Moreno, R., P.S. Miller, **T.E. Burkey**, S.J. Jones, S.L. Cuppett, T.P. Carr, T.F. Jones, and R.M. Diedrichsen. 2008. The effect of corn distillers dried grain with solubles (DDGS) on carcass characteristics and pork quality. Nebraska Swine Report. Ext. Publ. EC08-219:8–11. Univ. Nebraska, Lincoln.
31. Moreno, R. P.S. Miller, and **T.E. Burkey**. 2008. Effect of increasing lysine:net energy ratio on growth performance and plasma urea nitrogen concentration of late-finishing barrows fed low-protein amino acid-supplemented diets and ractopamine. Nebraska Swine Report. Ext. Publ. EC08-219:30–32. Univ. Nebraska, Lincoln.
32. Miller, P.S., R. Moreno, **T.E. Burkey** and R.K. Johnson. 2008. Estimation of lysine requirements for high-lean growth pigs. 2008. Nebraska Swine Report. Ext. Publ. EC08-219:26–29. Univ. Nebraska, Lincoln.
33. **Burkey, T.E.**, K.A. Skjolaas, S.S. Dritz, D.C. Robertson, G.A. Anderson, R. E. Musser, N. Scicutella, and J.E. Minton. 2007. Effects of Repaxol® and Aciprol on growth performance of weaned pigs challenged with *Escherichia coli* K88. Nebraska Swine Report. Ext. Publ. EC07-219:24–27. Univ. Nebraska, Lincoln.

#### **Invited Presentations:**

1. **Burkey, T.E.** 2021. Interactivity of health, nutrition and microbial ecology. Kemin Intestinal Health Symposium. Tucson, AZ, United States
2. **Burkey, T.E.** 2020. Protein and amino acid effects on pig microbial ecology, health and nutrition. ASAS-CSAS-WSASAS 2020 Virtual Annual Meeting and Trade Show.
3. **Burkey, T.E.** 2017. Innovative Commercial Protein Products from Grain Ethanol Processing in Diets for Swine. Distillers Grains Technology Council Symposium, Fluid-Quip Process Technologies Satellite Session. Indianapolis, IN.
4. **Burkey, T.E.** 2016. Complex interactions between the gut and nutrition from a practical swine production perspective. Jefe Swine & Poultry Tour. Quebec City, Canada.
5. **Burkey, T.E.** and M.D. Lindemann. 2015. An overview of the 2015 Digestive Physiology of Pigs Symposium. 15<sup>th</sup> Annual Midwest Swine Nutrition Conference. Indianapolis, IN.
6. **Burkey, T.E.** 2014. Disease challenge models: Probing interactions between health and nutrition. UNL Animal Science Departmental Seminar.
7. **Burkey, T.E.** 2014. Can we manage the gut microbiome? Nanjing Agricultural University. Nanjing, China.
8. **Burkey, T.E.** 2014. Nutrition x Health Interactions (PCV, PRRS, PEDV, Salmonella). Nanjing Agricultural University. Nanjing, China.



9. **Burkey, T.E.** 2014. Cecum-cannulated gnotobiotic pig model for animal and human research. Nanjing Agricultural University. Nanjing, China.
10. **Burkey, T.E.** 2014. Host-Microbe Interactions: Effects on nutrition and physiology. Allan D. Lemans Swine Conference. St. Paul, MN.
11. **Burkey, T.E.**, and P.S. Miller. 2014. Impact of disease on metabolism. Midwest Section ASAS, Physiology Symposium. Des Moines, IA.
12. **Burkey, T.E.** 2013. Nutritional Management of PRRS. North American PRRS Symposium. Chicago, IL.
13. **Burkey, T.E.** 2013. Host-Microbe Interactions: Effects on porcine growth and health. Iowa State University Nutritional Sciences Council Wise and Helen Burroughs Lectureship of Modern Views in Nutrition. Ames, IA.
14. **Burkey, T.E.** 2013. Host-Microbe Interactions: Effects on porcine growth and health. Kansas State University Dept. of Animal Science Physiology Seminar. Manhattan, KS.
15. Gabler, N.K., W. Schweer, J.F. Patience, L. Karriker, C. Sparks, G. Gourley, M. FitzSimmons, K. Schwartz, and **T.E. Burkey**. 2013. The impact of PRRSV on feed efficiency, digestibility and tissue accretion in grow-finisher pigs. Allan D. Lemans Swine Conference. St. Paul, MN.
16. **Burkey, T.E.** 2012. Effects of microecology on growth performance and immunologic function in pigs. Mount. Tai International Technical Innovation Forum About Animal Micro-ecology. Taian, Shandong Province, China.
17. **Burkey, T.E.**, T. E. Weber, and N. K. Gabler. 2012. Nutritional aspects of animal health and oxidative stress. Midwest Section ASAS, David H. Baker Amino Acid Symposium. Des Moines, IA.
18. **Burkey, T.E.** 2007. Applied and Basic Swine Research at UNL. Iowa Feed and Nutrition Seminar, Des Moines, IA.
19. **Burkey, T.E.**, K.A. Skjolaas-Wilson, B.M. Hildabrand, C.R. Neill, S.S. Dritz, B.J. Johnson, and J.E. Minton. 2004. Effects of yeast on weanling pig performance and binding of *Salmonella* serovars. Symposium Proceedings: Saf Agri VI International Seminar “Applied Microbiology to Animal Nutrition.” Veracruz, Mexico.
20. **Burkey, T.E.** 2004. The Effect of Feed Form on *Salmonella* Prevalence in Swine. Symposium Proceedings: 2004 Pork Quality and Safety Summit. National Pork Board. Des Moines, IA.
21. Minton, J.E., **T. E. Burkey**, K. A. Skjolaas, and S. S. Dritz. 2003. The gut as an immune tissue: new jobs for the gut epithelium? Symposium Proceedings: 64th Minnesota Nutrition Conference & Pre-Conference Symposium, St. Paul, MN.

#### **Abstracts of Presentations at National/Regional Conferences:**

1. Knapp, J.P., A. C. Neujahr, M. D. Trenhaile-Grannemann, K.A. Nguyen, J. Wittler, S. C. Fernando, P. S. Miller, **T. E. Burkey**. 2022. Role of the cecum on fiber digestion in finisher pigs using a cecectomized pig model. Proc. 15th Int. Symp. Dig. Phys. Pigs. Rotterdam, The Netherlands. Submitted.
2. Knapp, J.P., A. C. Neujahr, M. D. Trenhaile-Grannemann, K.A. Nguyen, J. Wittler, S. C. Fernando, P. S. Miller, **T. E. Burkey**. 2022. The evaluation of cecal and fecal microbial community structure in a cecum-cannulated grower pigs fed a high fiber diet. Proc. 15th Int. Symp. Dig. Phys. Pigs. Rotterdam, The Netherlands. Submitted.
3. Knapp, J.P., A. Bartenslager, S. M. Winkel, M. D. Trenhaile-Grannemann, J. V. San Andres, K.A. Nguyen, J. Wittler, S. R. Kinstler, S. C. Fernando, P. S. Miller, **T. E. Burkey**. 2021. The Effects

- of *Lactobacillus Fermentum* on Nursery Pig Performance. *J. Anim. Sci.* 99 (Supplement\_1):159–160. <https://doi.org/10.1093/jas/skab054.273>
4. Knapp, J.P., A. Bartenslager, S. M. Winkel, M. D. Trenhaile-Grannemann, J. V. San Andres, K.A. Nguyen, J. Wittler, S. R. Kinstler, S. C. Fernando, P. S. Miller, **T. E. Burkey**. 2021. The Effects of *Lactobacillus Fermentum* on sow and litter performance. *J. Anim. Sci.* 99 (Supplement\_1):160. <https://doi.org/10.1093/jas/skab054.274>
  5. Nguyen, K.A., M.D. Trenhaile-Grannemann, **T.E. Burkey**, P.S. Miller. 2021. Evaluation of Proso Millet as a Partial or Complete Replacement for Corn in Growing-finishing Diets for Pigs. *J. Anim. Sci.* 99 (Supplement\_1):71–72. <https://doi.org/10.1093/jas/skab054.117>
  6. **Burkey, T.E.** and M.D. Lindemann. 2021. Digestive Physiology of Pigs: Past, Present, and Future. *J. Anim. Sci.* 99 (Supplement\_1):14–15. <https://doi.org/10.1093/jas/skab054.025>
  7. **Burkey, T.E.** 2020. Protein and amino acid effects on pig microbial ecology, health and nutrition. *J. Anim. Sci.* 98 (E-Suppl. 4):112. <https://doi.org/10.1093/jas/skaa278.206>
  8. Winkel, S.M., L. Karr, **T.E. Burkey**. 2020. Assessment of Undergraduate Research Students in the Animal Science Department. *J. Anim. Sci.* 98(E-Suppl. 3):223-4. <https://doi.org/10.1093/jas/skaa054.390>
  9. Furbeck, R.A., J.P. Knapp, M.D. Trenhaile-Grannemann, **T.E. Burkey**, S.C. Fernando, G.A. Sullivan, and P.S. Miller. 2020. Effect of Green Grass supplementation of swine diet on pork quality characteristics. *J. Anim. Sci.* 98(E-Suppl. 3):169-70. <https://doi.org/10.1093/jas/skaa054.301>
  10. San Andres, J.V., J.P. Knapp, S.R. Kinstler, M.D. Trenhaile-Grannemann, S.M. Winkel, A. Schlageter-Tello, **T.E. Burkey**, and P.S. Miller. 2020. Effects of ammonium butyrate on growth performance in nursery pigs. *J. Anim. Sci.* Abstract Accepted.
  11. Walker, L.R., T.B. Engle, H. Vu, E.R. Tosky, D.J. Nonneman, T.P.L. Smith, T. Borza, **T.E. Burkey**, G.S. Plastow, S.D. Kachman, and D.C. Ciobanu. 2019. Deciphering the dynamics of Porcine Circovirus Associated Diseases using Gene Silencing and Editing. *Plant and Animal Genome XXVII (Abstr.)*
  12. Walker, L.R., T.B. Engle, H. Vu, E.R. Tosky, D.J. Nonneman, T.P.L. Smith, T. Borza, **T.E. Burkey**, G.S. Plastow, S.D. Kachman, and D.C. Ciobanu. 2019. Host Genetics Influences Replication of Porcine Circovirus 2b. *Plant and Animal Genome XXVII (Abstr.)*
  13. Winkel, S.M., **T.E. Burkey**, D. Brink, and L. Karr. 2019. Assessment of undergraduate student learning in an animal science major. *J. Anim. Sci.* 97(E-Suppl. 2):236-37. doi: 10.1093/jas/skz122.416
  14. Kinstler, S.R., Y.S. Li, P.S. Miller, **T.E. Burkey**, M.D. Trenhaile-Granneman, S.C. Fernando, A. Knoell, W. Tom. 2019. Effects of carbohydrate source on performance and gastrointestinal microbiota in nursery pigs. *J. Anim. Sci.* 97(E-Suppl. 2):86. doi: 10.1093/jas/skz122.156
  15. San Andres, J.V., D.M. van Sambeek, S.R. Kinstler, M.D. Trenhaile-Granneman, S.M. Winkel, A. Schlageter-Tello, P.S. Miller, and **T.E. Burkey**. 2019. Potential biomarkers of intestinal injury and inflammation in nursery pigs fed prebiotics. *J. Anim. Sci.* 97(E-Suppl. 2):220. doi: 10.1093/jas/skz122.388
  16. Aluthge, N.D., W. Tom, A. Bartenslager, **T.E. Burkey**, K.D. Heath, C. Kreikemeier-Bower, H. Kittana, A.E. Ramer-Tait, and S.C. Fernando. 2019. Direct comparison of human microbiota-associated (HMA) gnotobiotic piglet and mouse models. *J. Anim. Sci.* 97(E-Suppl. 2):114-5. doi: 10.1093/jas/skz122.203
  17. Constance, L.A., R.R.R. Rowland, W. Abbas, S.C. Fernando, M.L. Potter, M.A. Sheahan, **T.E. Burkey**, R.A. Hesse, A.G. Cino-Ozuna, M.C. Niederwerder. 2018. Fecal microbiota

- transplantation shifts microbiome composition and reduced morbidity and mortality associated with PCVAD. 99<sup>th</sup> Conference of Research Workers in Animal Diseases. Abstr. 12. Chicago, IL.
18. Walker, L., T. Engle, H. Vu, E. Tosky, D. Nonneman, T. Smith, T. Borza, **T.E. Burkey**, G. Plastow, S. Kachman, D.C. Ciobanu. 2018. Investigation of host genetic role PCV2 and PRRSV susceptibility. 99<sup>th</sup> Conference of Research Workers in Animal Diseases. Abstr. 217. Chicago, IL.
  19. van Sambeek, D.M., M.D. Trenhaile-Granneman, S.C. Fernando, P.S. Miller, and **T.E. Burkey**. 2018. Supplementation of tryptophan alters piglet growth performance, digestibility, and Lactobacillus populations. Proc. 14th Int. Symp. Dig. Phys. Pigs. Brisbane, Australia.
  20. Martindale, A., M.D. Trenhaile-Grannemann, S.M. Barnett, P.S. Miller, and **T.E. Burkey**. 2018. Growth performance of weaned pigs fed a high-protein corn co-product. J. Anim. Sci. 96(E-Suppl. 3):295 (Abstr.) doi: 10.1093/jas/sky404.649
  21. Williams, H.E., J.C. Woodworth, J.M. DeRouche, S.S. Dritz, M.D. Tokach, R.D. Goodband, S.C. Fernando, **T.E. Burkey**, and Y.S. Li. 2018. Effects of Crystalline Amino Acid concentration with or without Formaldehyde-treatment of diets on Nursery Pig Growth Performance and Fecal Microbial Populations. J. Anim. Sci. 96(E-Suppl. 2):70-71 (Abstr.) doi: 10.1093/jas/sky073.130
  22. van Sambeek, D.M., **T.E. Burkey**, and L. Smalley. 2018. Response of IPEC-J2 cells and jejunal explants to treatment with rhamnolipids. J Anim Sci. 96(E-Suppl. 2):214-15. (Abstr.) doi: 10.1093/jas/sky073.396
  23. Barnett, S.M., M.D. Trenhaile-Grannemann, D.M. Van Sambeek, P.S. Miller, J. Salcedo, D. Barile, and **T.E. Burkey**. 2018. Effects of Energy Restriction during Gilt Development on Characterization and Quantification of Milk Oligosaccharides. J Anim Sci. 96(E-Suppl. 2):78-79. (Abstr.) doi: 10.1093/jas/sky073.145
  24. Gebhardt, J.T., S. S. Dritz, J. C. Woodworth, M. D. Tokach, J. M. DeRouche, R. D. Goodband, M. C. Niederwerder, S. C. Fernando, and **T. E. Burkey**. 2018. Medium chain fatty acids modulate gastrointestinal microbiota and promote growth in nursery pig diets. Proc. 49th Annu. Meet. Am. Assoc. Swine Veterinarians, San Diego, CA. (Abstr.)
  25. Niederwerder, M.C., R.R.R. Rowland, L.A. Constance, S.C. Fernando, M.L. Potter, M.A. Sheahan, **T.E. Burkey**, R.A. Hesse, and A.G. Cino-Ozuna. 2017. Fecal microbiota transplantation improves outcome in nursery pigs following co-infection with PRRSV and PCV2d. North American PRRS Symposium on PRRS, Emerging and Foreign Animal Diseases and National Swine Improvement Federation NAPRRS-NSIF Joint Conference.
  26. Aluthge, N.D., W. Tom, S. Rohde, **T.E. Burkey**, K. D. Heath, C. Kreikemeier-Bower, H. Kittana, A.E. Ramer-Tait, and S. C. Fernando. 2017. Direct comparison of human microbiota-associated gnotobiotic piglet and mouse models for infant gut microbiota studies. Symposium on Gut Health in Production of Food Animals, St. Louis, MO.
  27. van Sambeek, D.M., M.D. Trenhaile-Grannemann, P.S. Miller, and **T.E. Burkey**. 2017. Evaluation of a QTL for porcine circovirus type 2b (PCV2) viral load on long-term growth performance and nutrient digestibility in inoculated or vaccinated pigs for PCV2. J. Anim. Sci. 95(E-Suppl. 2):158 (Abstr.) doi: 10.2527/asasmw.2017.326
  28. Barnett, S.M., M.D. Trenhaile-Grannemann, **T.E. Burkey**, P.S. Miller, and D.C. Ciobanu. 2017. Effects of energy restriction during gilt development on parity 1 progeny growth performance. J. Anim. Sci. 95(E-Suppl. 2):76 (Abstr.) doi: 10.2527/asasmw.2017.12.160
  29. Barnett, S.M., M.D. Trenhaile-Grannemann, P.S. Miller, **T.E. Burkey**, and D.M. van Sambeek. 2017. Effects of energy restriction during gilt development on milk nutrient profile and progeny biomarkers. J. Anim. Sci. 95(E-Suppl. 2): 78-79 (Abstr.). doi:10.2527/asasmw.2017.12.166

30. Li, Y.S., M.D. Trenhaile, D.M. van Sambeek, K.C. Moore, S.M. Barnett, S.C. Fernando, **T.E. Burkey**, and P.S. Miller. 2017. Effects of mannan oligosaccharides and lactobacillus mucosae on the growth performance and immune response of weanling pigs challenged with Escherichia coli lipopolysaccharides. *J. Anim. Sci.* 95(E-Suppl. 2):140 (Abstr.) doi: 10.2527/asasmw.2017.289
31. Li, Y.S., M.D. Trenhaile, D.M. van Sambeek, K.C. Moore, S.M. Barnett, S.C. Fernando, **T.E. Burkey**, and P.S. Miller. 2017. Effects of mannan oligosaccharides and lactobacillus mucosae on the intestinal morphology of weanling pigs challenged with Escherichia coli lipopolysaccharides. *J. Anim. Sci.* 95(E-Suppl. 2):101-102 (Abstr.) doi: 10.2527/asasmw.2017.12.212
32. Aluthge, N.D., W. Tom, **T.E. Burkey**, P.S. Miller, D.E. Hostetler, K.D. Heath, C. Kreikemeier, and S.C. Fernando. 2017. A humanized gnotobiotic piglet model to study host-microbiota interactions. *J. Anim. Sci.* 95(E-Suppl. 2):159 (Abstr.) doi: 10.2527/asasmw.2017.327
33. Aluthge, N.D., W. Tom, **T.E. Burkey**, D.E. Hostetler, K.D. Heath, C. Kreikemeier, and S.C. Fernando. 2016. The development of a cecum-cannulated gnotobiotic piglet model to study the human gut microbiota. *J. Anim. Sci.* 94(E-Suppl. 5):211-12. (Abstr.) doi:10.2527/jam2016-0440
34. Barnett, S.M., K.C. Moore, M.D. Trenhaile, A.T. Desaulniers, Y.S. Li, D.M. van Sambeek, H. Tran, B.R. White, and **T.E. Burkey**. 2016. Effect of energy restriction on feed efficiency, nutrient digestibility, and immune biomarkers of growing/finishing pigs. *J. Anim. Sci.* 94(Suppl. 2):92-93. (Abstr.) doi:10.2527/msasas2016-195
35. Moore, K.C., S.M. Barnett, Y.S. Li, M.D. Trenhaile, **T.E. Burkey**, P.S. Miller, and S.C. Fernando. 2016. The effects of egg yolk on nursery pig growth performance. *J. Anim. Sci.* 94(Suppl. 2):135. (Abstr.) doi:10.2527/msasas2016-289
36. van Sambeek, D.M., E.R. Tosky, P.S. Miller, D.C. Ciobanu, and **T.E. Burkey**. 2016. Evaluation of a QTL for porcine circovirus type 2b (PCV2) viral load on growth performance in inoculated and vaccinated pigs for PCV2. *J. Anim. Sci.* 94(Suppl. 2):145. (Abstr.) doi:10.2527/msasas2016-309
37. Li, Y.S., S. C. Fernando, P. S. Miller, **T. E. Burkey**. 2016. Alteration of fecal bacterial communities in weanling pigs fed diets supplemented with chicory, mannan oligosaccharides, or chitosan. *J. Anim. Sci.* 94(Suppl. 2):138. (Abstr.) doi:10.2527/msasas2016-294
38. Li, Y.S., M.D. Trenhaile, M.M. Lima, K.C. Moore, D. M. van Sambeek, **T. E. Burkey**, and P. S. Miller. 2016. Growth performance and serum IgA concentrations in weanling pigs fed dietary prebiotics. *J. Anim. Sci.* 94(Suppl. 2):72. (Abstr.) doi:10.2527/msasas2016-155
39. Stuart, W.D., **T.E. Burkey**, N.K. Gabler, K.J. Schwartz, D. Klein, J.A. Dawson, A.R. Pendleton, C.F.M. de Lange, and A. Rakhshandeh. 2016. Immune system stimulation (ISS) induced by E. coli lipopolysaccharide (LPS) alters amino acid metabolism in growing pigs. *J. Anim. Sci.* 94(Suppl. 2):51-2. (Abstr.) doi:10.2527/msasas2016-110
40. Ciobanu, D.C., E.R. Tosky, S. Olson, M.D. Trenhaile, C. Lents, T.P.L. Smith, D.J. Nonneman, G. Rohrer, J. Chin, P. Miller, **T.E. Burkey**, M.L. Spangler, J.J. Riethoven, G.S. Plastow, and S.D. Kachman. 2016. Development of resources and tools for mapping genetic sources of phenotypic variation. *Plant and Animal Genome XXIV* (Abstr.)
41. **Burkey, T.E.**, and Lindemann, M.D. 2015. An overview of the 2015 Digestive Physiology of Pigs Symposium. 15th Annual Midwest Swine Nutrition Conference Proceedings, Indianapolis, Indiana, USA, September 10, 2015, pp.49-53
42. Lima, M.M., D.M. van Sambeek, H. Tran, D.C. Ciobanu, P.S. Miller, and **T.E. Burkey**. 2015. Effect of complex and prebiotic diets on intestinal health of nursery pigs inoculated to porcine circovirus 2 (PCV2). *J. Anim. Sci.* 93 (E-Suppl. 3):657. (Abstr.)

43. Lima, M.M., M.C. Thomaz, F.F. Castro, R.S. Filardi, D.J. Rodrigues, M.S.F. Oliveira, M.V. Marujo, E. Daniel, A.C. Laurentiz, and **T.E. Burkey**. 2015. Mitotic and apoptosis rate of intestinal cells of nursery pigs fed with a blend of organic acids and medium chain fatty acids. *J. Anim. Sci.* 93 (E-Suppl. 3):657. (Abstr.)
44. Lima, M.M., M.C. Thomaz, F.F. Castro, R.S. Filardi, D.J. Rodrigues, M.S.F. Oliveira, M.V. Marujo, D.M. van Sambeek, and **T.E. Burkey**. 2015. Effects of organic acids and medium-chain fatty acids on gut health of nursery pigs. *J. Anim. Sci.* 93 (E-Suppl. 3):657. (Abstr.)
45. Stuart, W.D., **T.E. Burkey**, N.K. Gabler, K. Schwartz, T. Dinh, C.F.M. de Lange, D. Klein, J.D. Dawson, and A. Rakhshandeh. 2015. Infection with porcine reproductive and respiratory syndrome virus (PRRSV) affects body protein deposition and alters amino acid metabolism in growing pigs. *J. Anim. Sci.* 93 (E-Suppl. 3): 855. (Abstr.)
46. van Sambeek, D.M., H. Tran, S.C. Fernando, D.C. Ciobanu, P.S. Miller, and **T.E. Burkey**. 2015. Alteration of the pig intestinal microbiome when vaccinated against or inoculated with porcine circovirus 2 using a multivariate analysis model. *Proc. 13th Int. Symp. Dig. Phys. Pigs.* Kliczkow, Poland.
47. Li, Y.S., H. Tran, **T.E. Burkey**, and P.S. Miller. 2015. Can the effects of lactose on nursery pig performance and immune parameters be attributed to glucose, galactose, a combination of both, or sucrose? *J. Anim. Sci.* 93 (E-Suppl. 2):141. (Abstr.)
48. Stuart, W., **T.E. Burkey**, N.K. Gabler, K. Schwartz, C.F.M. de Lange, and A. Rakhshandeh. 2015. Models of immune system stimulation in growing pigs: porcine reproductive and respiratory syndrome (PRRS) versus *E. coli* lipopolysaccharide. *J. Anim. Sci.* 93 (E-Suppl. 2):165. (Abstr.)
49. Serão, N.V.L., **T.E. Burkey**, G. Gourley, T.E. Weber, M. Fitzsimmons, K. Schwartz, C. Sparks, J. Odle, J.C.M. Dekkers, and N.K. Gabler. 2014. Blood Biomarkers for Growth Performance in Growing Gilts Infected with PRRS virus. *NA PRRS Symposium*, Abstract 82.
50. Wooten, H., J.J. McGlone, W. Stuart, **T.E. Burkey**, N.K. Gabler, K. Schwartz, C.F.M. de Lange, and A. Rakhshandeh. 2015. Impact of porcine respiratory and reproductive virus on behavior of growing pigs. *J. Anim. Sci.* 93 (E-Suppl. 2):193. (Abstr.)
51. Kaiser, M.E., C.L. Anderson, N. Aluthge, **T.E. Burkey**, P.S. Miller, D. Hostetler, and S.C. Fernando. 2015. New cecum cannulated pig model to investigate the human microbiota through inter species transfer of gut microbiota from humans to pigs. *J. Anim. Sci.* 93 (E-Suppl. 2):198. (Abstr.)
52. **Burkey, T.E.**, and P.S. Miller. 2014. Impact of disease on metabolism. *Midwest Section ASAS, Physiology Symposium.* Des Moines, IA. *J. Anim. Sci.* 92 (E-Suppl. 2):196 (Abstr.)
53. Tran, H.T., C. Anderson, S. C. Fernando, J. W. Bundy, P. S. Miller, and **T. E. Burkey**. 2014. Effects of spray-dried porcine plasma on fecal microbiota in nursery pigs. *J. Anim. Sci.* 92(E-Suppl. 2): 135 (Abstr.)
54. Serão, N.V.L., **T.E. Burkey**, G. Gourley, T.E. Weber, M. FitzSimmons, K. Schwartz, C. Sparks, J. Odle, and N.K. Gabler, and J.C.M. Dekkers. 2014. Characterization of PRRS progression in growing gilts using metabolic, cytokine and complete blood count data. *J. Anim. Sci.* 92(E-Suppl. 2): 164 (Abstr.)
55. Mastromano, G.A., Y.S. Li, H. Tran, J.W. Bundy, D.C. Ciobanu, P.S. Miller, and **T.E. Burkey**. 2014. Diet complexity affects post-weaning performance and immune response to Porcine Circovirus 2 (PCV2) infection in nursery pigs. *J. Anim. Sci.* 92(E-Suppl. 2): 162 (Abstr.)
56. Mastromano, G.A., Y.S. Li, H. Tran, J.W. Bundy, P.S. Miller, and **T.E. Burkey**. 2014. Prebiotic effects on growth performance and immune health in nursery pigs. *J. Anim. Sci.* 92(E-Suppl. 2): 342 (Abstr.)

57. Li, Y.S., G. A. Mastromano, H. Tran, J. W. Bundy, **T. E. Burkey**, B. J. Kerr, M. K. Nielsen, and P. S. Miller. 2014. Digestible and metabolizable values of dried distillers grains with solubles (DDGS) estimated from corn-soybean meal or barley-canola meal basal diets and using different collection methods. *J. Anim. Sci.* 92(E-Suppl. 2): 174 (Abstr.)
58. Schweer, W., J.F. Patience, L. Karriker, J.C. Sparks, G. Gourley; M. FitzSimmons, K. Schwartz, **T.E. Burkey**, and N.K. Gabler. 2014. PRRSv reduces feed efficiency and tissue accretion rates in grow-finisher pigs. *J. Anim. Sci.* 92(E-Suppl. 2): 082 (Abstr.)
59. **Burkey, T.E.**, G.A. Mastromano, H.T. Tran, W. Schweer; J. F. Patience; L. Karriker; J. Dekkers; C. Sparks; G. Gourley; M. FitzSimmons; J. Odle; K. Schwartz; N. K. Gabler. 2013. Nutritional management of Porcine Reproductive and Respiratory Syndrome (PRRS). North American PRRS Symposium. Chicago, IL.
60. Rakhshandeh, A., **T.E. Burkey**, T.E. Weber, M. Fitzsimmons, K. Schwartz, J.C. Dekkers, C. Sparks, J. Odle, N.K. Gabler, and G. Gourley. 2013. Measures of immune function as biomarkers in serum of pigs infected with porcine reproductive and respiratory syndrome virus. *J. Anim. Sci.* 91(E-Suppl. 2): 139. (Abstr.)
61. Mastromano, G., **T.E. Burkey**, A. Rakhshandeh, T.E. Weber, M. Fitzsimmons, K. Schwartz, J.C. Dekkers, C. Sparks, J. Odle, N.K. Gabler, and G. Gourley. 2013. The effects of porcine reproductive syndrome virus (PRRSV) on immune biomarkers. *J. Anim. Sci.* 91(E-Suppl. 2): 138. (Abstr.)
62. Tran, H, J.W. Bundy, Y.S. Li, **T.E. Burkey**, and P.S. Miller. 2013. Interaction of Grobiotic-s and antibiotics on growth performance of nursery pigs raised under substandard conditions. *J. Anim. Sci.* 91(E-Suppl. 2): P086. (Abstr.)
63. Li, Y.S., H. Tran, J.W. Bundy, **T.E. Burkey**, M.K. Nielsen, B.J. Kerr, and P.S. Miller. 2013. Evaluation of collection method on nutrient digestibility of corn-soybean meal (CSBM) and CSBM-dried distillers grains with soluble (DDGS) based diets in growing pigs. *J. Anim. Sci.* 91(E-Suppl. 2): 222. (Abstr.)
64. Tran, H, J. W. Bundy, Y. Li, E. E. Hinkle, **T. E. Burkey**, and P. S. Miller. 2013. Cytokine gene expression and secretion by macrophages derived from pigs fed spray dried porcine plasma. *J. Anim. Sci.* 91(E-Suppl. 2): P088. (Abstr.)
65. Tran, H, J. W. Bundy, Y. Li, E. E. Hinkle, **T. E. Burkey**, and P. S. Miller. 2013. Effects of spray-dried porcine plasma on growth performance, immune responses, total antioxidant capacity, and gut integrity of nursery pigs. *J. Anim. Sci.* 91(E-Suppl. 2): 096. (Abstr.)
66. Kreikemeier, C.A., **T.E. Burkey**, and D.C. Ciobanu. 2013. Genome-wide Analysis of Indicators of Oxidative Stress and Immune Response in Pigs Challenged with Porcine Circovirus 2b. International Plant & Animal Genome XXI
67. **Burkey, T.E.**, T. E. Weber, and N. K. Gabler. 2012. Nutritional aspects of animal health and oxidative stress. Midwest Section ASAS, David H. Baker Amino Acid Symposium. Des Moines, IA. *J. Anim. Sci.* 90(E-Suppl. 2): 009. (Abstr.)
68. Kreikemeier, C.A, **T.E. Burkey**, and D.C. Ciobanu. 2012. Markers of Oxidative Stress and Immune Parameters in Pigs Challenged with Porcine Circovirus 2. Meril-NIH National Symposium.
69. Jobman, E.E., A.M. McKnite, T.W. Moural, J.K. Tart, J.W. Bundy, T.P. Bohnert, S.Y. Barnes, C.A. Kreikemeier, T.B. Engle, E.H. Davis, J.K. Qiu, J.A. Galeota, S. Harris, M.F. Rothschild, **T.E. Burkey**, S. Kachman, and D.C. Ciobanu. 2012. Genomic analysis of the differential response in experimental infection with Porcine Circovirus 2. International PRRSV Symposium and NSIF Annual Joint Meeting.

70. Hinkle, E.E., S. Fernando, and **T.E. Burkey**. 2012. Differences in core microbiota between P1 and P3 dams and their progeny. Proc. 12th Int. Symp. Dig. Phys. Pigs. Keystone, CO. (Abstr. 1002)
71. Tran, H., J.W. Bundy, E.E. Hinkle, J. Walter, P.S. Miller, and **T.E. Burkey**. 2012. Effects of yeast-dried milk (YDM) product in creep and Phase-1 nursery diets on circulating IgA and fecal microbiota of nursing and nursery pigs. Proc. 12th Int. Symp. Dig. Phys. Pigs. Keystone, CO. (Abstr. 1034)
72. Burger, W., H. Tran, J.W. Bundy, E.E. Hinkle, R.K. Johnson, P.S. Miller, and **T.E. Burkey**. 2012. Evaluation of the growth performance and fecal microbiota profile in developing gilts fed high-fiber diets. Proc. 12th Int. Symp. Dig. Phys. Pigs. Keystone, CO. (Abstr. 1035)
73. Tangeman, S.E., E.E. Hinkle, H. Tran, and **T.E. Burkey**. 2012. The effects of dam parity on microbial diversity in milk, and the in vitro effects of digested milk on immunoglobulin transport and neonatal Fc receptor expression in IPEC-J2 cells. Proc. 12th Int. Symp. Dig. Phys. Pigs. Keystone, CO. (Abstr. 2026)
74. Hinkle, E.E., I. Martinez, J. Walter, P.S. Miller, and **T.E. Burkey**. 2011. Microbial transmission and assembly of the gut microbiota in neonatal pigs on day 7 and 14 postfarrowing. J. Anim. Sci. 89(E-Suppl. 2): 662. (Abstr.)
75. Clark, K.J., P.B. Patil, C. Hernandez Gaitan, **T.E. Burkey**, N. Madayipthiya, S.L. Taylor, and J. Walter. 2011. Identification of probiotic strains capable of gluten peptide degradation. J. Allergy Clin. Immunol. 127(2 Suppl.): AB243
76. Tran, H., J. W. Bundy, E. E. Hinkle, **T. E. Burkey**, and P. S. Miller. 2011. Effects of incorporation of a yeast-dried milk product in creep feeding and Phase-1 nursery diets on growth performance and circulating immunoglobulin A of pigs. J. Anim. Sci. 89 (E-Suppl. 3): 111. (Abstr.)
77. Hinkle, E.E., H. T. Tran, J. W. Bundy, P. S. Miller, and **T. E. Burkey**. 2011. The effect of dam parity (1 vs 3) on litter performance, passive immunity, and fecal microbial fingerprinting. J. Anim. Sci. 89 (E-Suppl. 3): 78. (Abstr.)
78. Bundy, J.W., P.S. Miller, R.L. Payne, **T.E. Burkey**, E.E. Hinkle, and H. Tran. 2011. The effects of increasing threonine to lysine ratio on growth and carcass characteristics of 83 to 117 kg pigs fed ractopamine. J. Anim. Sci. 89 (E-Suppl. 3): 117. (Abstr.)
79. Hinkle, E.E., H. Tran, J.W. Bundy, R. Moreno, P.S. Miller, J. Walter, and **T.E. Burkey**. 2010. The effects of dam parity and antibiotics on immune parameters and gastrointestinal bacterial diversity in weanling pigs. J. Anim. Sci. 88(E-Suppl. 2):311. (Abstr.)
80. Tran, H., R. Moreno, J.W. Bundy, E.E. Hinkle, J. Walter, **T.E. Burkey**, and P.S. Miller. 2010. Effects of distillers dried grains with solubles and lactose on fecal *Lactobacillus* biota of nursery pigs. J. Anim. Sci. 88(E-Suppl. 2):369. (Abstr.)
81. Tran, H., P.S. Miller, and **T.E. Burkey**. 2010. Effects of crystalline lactose on expression of sodium-dependent glucose transporter-1 mRNA and glucose transport in porcine jejunal epithelial cells. J. Anim. Sci. 88(E-Suppl. 3):73. (Abstr.)
82. Tran, H., R. Moreno, J.W. Bundy, E.E. Hinkle, **T.E. Burkey**, and P.S. Miller. 2010. Effects of distillers dried grains with solubles and lactose on growth performance of nursery pigs. J. Anim. Sci. 88(E-Suppl. 3):92. (Abstr.)
83. Tran, H., J.W. Bundy, E.E. Hinkle, R. Moreno, J. Walter, **T.E. Burkey**, and P.S. Miller. 2010. Effects of lactose and milk-yeast on growth performance, fecal microbiota, and immune responses of nursery pigs. J. Anim. Sci. 88(E-Suppl. 3):113. (Abstr.)
84. Bundy, J.W., P.S. Miller, R. Moreno, **T.E. Burkey**, E.E. Hinkle, and H. Tran. 2010. Lysine requirement for finishing barrows fed ractopamine. J. Anim. Sci. 88(E-Suppl. 3):87. (Abstr.)

85. Bundy, J.W., P.S. Miller, R. Moreno, **T.E. Burkey**, E.E. Hinkle, and H. Tran. 2010. Effects of utilizing dried distillers grains with solubles and phytase in finishing swine. *J. Anim. Sci.* 88(E-Suppl. 3):116. (Abstr.)
86. Aperce, C., **T.E. Burkey**, B. KuKanich, B.A. Crozier-Dodson, S.S. Dritz, and J.E. Minton. 2010. Interaction of *Bacillus spp.* and *Salmonella enterica* serovar Typhimurium in immune/inflammatory signaling from swine intestinal epithelial cells. *J. Anim. Sci.* 88(E-Suppl. 3):72. (Abstr.)
87. Carney, E.E., H. Tran, J.W. Bundy, R. Moreno, D.E. Reese, P.S. Miller, and **T.E. Burkey**. 2010. Effect of dam parity on progeny gastrointestinal microflora. Proc. 41st Annu. Meet. Am. Assoc. Swine Veterinarians, Omaha, NE. (Abstr.)
88. Carney, E.E., H. Tran, J.W. Bundy, R. Moreno, D.E. Reese, P.S. Miller, and **T.E. Burkey**. 2009. Effect of dam parity on litter performance and passive immunity. *J. Anim. Sci.* 87(E-Suppl. 3):87. (Abstr.)
89. Carney, E.E., H. Tran, J.W. Bundy, R. Moreno, D.E. Reese, P.S. Miller, and **T.E. Burkey**. 2009. Effect of dam parity on growth performance and immune response of weaned pigs. *J. Anim. Sci.* 87(E-Suppl. 3):105. (Abstr.)
90. Tran, H., P.S. Miller, and **T.E. Burkey**. 2009. In vivo and in vitro expression of porcine zinc transporter (ZnT) 1 mRNA. *J. Anim. Sci.* 87(E-Suppl. 3):113. (Abstr.)
91. Tran, H., and **T.E. Burkey**. 2008. The effect of soluble yeast  $\beta$ -glucan on secretion of TNF- $\alpha$ , IL-8, and IL-12 from swine jejunal epithelial cells. 88<sup>th</sup> Conference of Research Workers in Animal Diseases. Abstr. 101P. Chicago, IL. (Abstr.)
92. **Burkey, T.E.**, R. Moreno, E.E. Carney, and P.S. Miller. 2008. Effect of dried corn distillers grains with solubles (DDGS) on growth performance of growing-finishing gilts with previous exposure to DDGS in the nursery. *J. Anim. Sci.* 86(E-Suppl. 2):522.
93. **Burkey, T.E.**, and S.S. Shepherd. 2008. Polarized interleukin-8 (IL8) secretion by swine jejunal epithelial cells (IPEC-J2) treated with soluble beta-glucan (BG). *J. Anim. Sci.* 86(E-Suppl. 2):58.
94. **Burkey, T.E.**, P. S. Miller, R. Moreno, S. S. Shepherd, and E. E. Carney. 2008. Effects of increasing levels of distillers dried grains with solubles (DDGS) on growth performance of weanling pigs. *J. Anim. Sci.* 86(E-Suppl. 3): 84. (Abstr.)
95. Moreno, R., P.S. Miller, and **T.E. Burkey**. 2008. Effect of increasing lysine/net energy concentration on growth performance and plasma urea nitrogen concentration of late-finishing barrows fed low-protein amino acid-supplemented diets and Paylean. *J. Anim. Sci.* 86(E-Suppl. 3): 81. (Abstr.)
96. **Burkey, T.E.**, R. K. Johnson, P. S. Miller, D.E. Reese, and R. Moreno. 2007. The effect of dam parity on circulating immunoglobulins (Ig) in neonatal swine. *J. Anim. Sci.* 85(Suppl. 1): 586. (Abstr.)
97. Groesbeck, C.N., **T. E. Burkey**, J. E. Minton, S. S., Dritz, R. D. Goodband, M. D Tokach, J. M. DeRouchey, and J. L. Nelssen. 2007. Neonatal Fc receptor mRNA expression in fetal pigs and in gastrointestinal tissues from pigs fed diets of varying form with or without irradiated and non-irradiated spay-dried animal plasma. *J. Anim. Sci.* 85(Suppl. 1): 680. (Abstr.)
98. **Burkey, T.E.**, Hildabrand, B.M., S.S. Dritz, B.J. Johnson, and J.E. Minton. 2007. The interactive effects of BIOSAF® yeast and in-feed antimicrobials on the growth performance of weanling pigs. Proc. 38th Annu. Meet. Am. Assoc. Swine Veterinarians, Orlando, FL.
99. **Burkey, T.E.**, K.A. Skjolaas, D.C. Robertson, and J.E. Minton. 2006. Polarized interleukin-8 (IL8) secretion in swine jejunal epithelial cells following apical exposure to *Escherichia coli* K88. 86th Conference of Research Workers in Animal Disease, Abstr. P110. Chicago, IL. (Abstr.)



100. Skjolaas, K.A., **T.E. Burkey**, and J.E. Minton. 2006. Pretreatment of swine jejunal epithelial cells (IPEC-J2) with *Bacillus licheniformis* (BL) prevents *Salmonella enterica* serovar Typhimurium (ST)-induced basolateral interleukin 8 (IL-8) secretion. J. Anim. Sci. 84(Suppl. 2):25. (Abstr.)
101. Hildabrand, B.M., **T.E. Burkey**, K.A. Skjolaas, S.S. Dritz, B.J. Johnson, and J.E. Minton. 2006. Growth performance of nursery pigs fed BIOSAF® yeast alone or in combination with in-feed antimicrobial. J. Anim. Sci. 84(Suppl. 2):116. (Abstr.)
102. Hildabrand, B.M., **T.E. Burkey**, K.A. Skjolaas, S.S. Dritz, B.J. Johnson, and J.E. Minton. 2006. Growth performance of nursery pigs fed BIOSAF® in combination with in-feed antimicrobials. J. Anim. Sci. 84(Suppl. 2):117. (Abstr.)
103. Skjolaas, K.A., **T.E. Burkey**, and J.E. Minton. 2005. Basolateral application of TNF $\alpha$  stimulates interleukin 8 (IL8) secretion from swine jejunal epithelial cells. 85th Conference of Research Workers in Animal Diseases, Abstr P88. St. Louis, MO.
104. **Burkey, T.E.**, K.A. Skjolaas-Wilson, K.R. Lawrence, B.J. Johnson, and J.E. Minton. 2005. Expression of Toll-like receptors in the fetal porcine intestine. J. Anim. Sci. 83(Suppl. 1):386. (Abstr.)
105. Davis, B.L., J.N. Fraser, K. A. Skjolaas-Wilson, **T. E. Burkey**, S. S. Dritz, B. J. Johnson, and J.E. Minton. 2005. *Salmonella enterica* serovars Typhimurium and Choleraesuis provoke divergent responses in serum IGF-I in young pigs. J. Anim. Sci. 83(Suppl. 1):280. (Abstr.)
106. Fraser, J.N., K.A. Skjolaas-Wilson, B. L. Davis, **T.E. Burkey**, S.S. Dritz, B. J. Johnson, and J.E. Minton. 2005. *Salmonella enterica* serovar Choleraesuis-induced growth retardation occurs in the absence of elevated systemic cytokines. Experimental Biology and XXXV International Congress of Physiological Sciences meeting abstracts [on CD-ROM]. FASEB J., 19, Abstract #43.3.
107. Skjolaas-Wilson, K.A., **T.E. Burkey**, and J.E. Minton. 2005. Expression of macrophage inflammatory protein (MIP)3 $\alpha$ /CC chemokine ligand-20 (CCL20) and interleukin 8 (IL8) in swine jejunal epithelial cells following apical treatment with *Lactobacillus reuteri*, *Bacillus licheniformis*, *Salmonella enterica* serovars Typhimurium or Choleraesuis. Experimental Biology and XXXV International Congress of Physiological Sciences meeting abstracts [on CD-ROM]. FASEB J., 19, Abstract #43.1.
108. **Burkey, T.E.**, K.A. Skjolaas-Wilson and J.E. Minton. 2005. Expression of toll-like receptors (TLRs) 2 and 4 in swine jejunal epithelial cells following apical treatment with *Lactobacillus reuteri* (LR), *Bacillus licheniformis* (BL), *Salmonella enterica* serovars Typhimurium (ST) or Choleraesuis (SC). Experimental Biology and XXXV International Congress of Physiological Sciences meeting abstracts [on CD-ROM]. FASEB J., 19, Abstract #43.2.
109. Hildabrand, B.M., C.R. Neill, **T.E. Burkey**, S.S. Dritz, B.J. Johnson and J.E. Minton. 2005. Growth performance of nursery pigs fed BioSaf yeast alone or in combination with in-feed antimicrobial. J. Anim. Sci. 83(Suppl. 2):76. (Abstr.)
110. Brown, K.R., B.J. Johnson, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.L. Nelssen, E.J. Minton, A.E. Brazle, **T.E. Burkey**, C.N. Groesbeck, C.R. Neill, J.D. Schneider, and J.C. Woodworth. 2005. Influence of L-carnitine on litter characteristics from gilts harvested at day 40, 55, and 70 of gestation. Kansas State University Swine Day 2005. Report of Progress 964, pp.18-23
111. Skjolaas-Wilson, K.A., **T.E. Burkey**, and J.E. Minton. 2004. Expression of chemokines and cytokines in swine jejunal epithelial cells following apical lipopolysaccharide or Salmonella. 7<sup>th</sup> International Veterinary Immunology Symposium. Quebec City, Canada. (abstr.)

112. **Burkey, T.E.**, K.A. Skjolaas-Wilson and J.E. Minton. 2004. Bacterial flagellin induces toll-like receptor 5 and interleukin-8 mRNA in porcine jejunal epithelial cells. 7<sup>th</sup> International Veterinary Immunology Symposium. Quebec City, Canada. (abstr.)
113. **Burkey, T.E.**, K.A. Skjolaas-Wilson and J.E. Minton. 2004. Toll-Like receptor expression in porcine jejunal epithelial cells following apical treatment with lipopolysaccharide or *Salmonella*. 7<sup>th</sup> International Veterinary Immunology Symposium. Quebec City, Canada. (abstr.)
114. **Burkey, T.E.**, K.A. Skjolaas-Wilson and J.E. Minton. 2004. Time course of polarized interleukin-8 (IL-8) secretion in swine jejunal epithelial cells following apical lipopolysaccharide (LPS) and *Salmonella enterica* serovars Typhimurium (ST) or Choleraesuis (SC). FASEB J. 18:557.10.
115. Skjolaas-Wilson, K.A., **T.E. Burkey**, and J.E. Minton. 2004. Time course of expression of macrophage inflammatory protein (MIP)3 $\alpha$ /CC chemokine ligand-20 (CCL20) in swine jejunal epithelial cells following apical lipopolysaccharide (LPS) and *Salmonella enterica* serovars Typhimurium or Choleraesuis. FASEB J. 18:557.09.
116. **Burkey, T.E.**, S.S. Dritz, and J.E. Minton. 2004. Effect of dietary sodium chlorate on growth performance of weaned pigs. J. Anim. Sci. 82(Suppl. 2):62. (Abstr.)
117. Neill, C.R., M.D. Tokach, J.L. Nelssen, R.D. Goodband, J.M. DeRouchey, S.S. Dritz, J.E. Minton, C.N. Groesbeck, K.R. Lawrence, C.W. Hastad, R.O. Gottlob, B.M. Hildabrand, and **T.E. Burkey**. 2004. Effects of weaning time (PM or AM) on nursery-pig growth performance. Kansas State University Swine Day 2004. Report of Progress 940, pp.23-24
118. Skjolaas, K.A., **T. E. Burkey** J.E. Minton. 2003. Time course of expression of interleukin 8 (IL-8), macrophage migration inhibitory factor (MIF) and osteopontin (OST) mRNA in swine jejunal epithelial cells following apical lipopolysaccharide (LPS) and *Salmonella enterica* serotype Typhimurium and Choleraesuis. 84th Conference of Research Workers in Animal Diseases, Abstr. 60P. Chicago, IL.
119. Skjolaas, K. A., **T. E. Burkey**, M. R. Barker, S. S. Dritz, and J. E. Minton. 2003. Carbadox does not alter immune cell phenotypes in mesenteric lymph nodes of pigs challenged with *Salmonella enterica* serotype Typhimurium. J. Anim. Sci. 81(Suppl. 1):192. (Abstr.)
120. **Burkey, T.E.**, S.S. Dritz, J.C. Nietfeld, B.J. Johnson and J.E. Minton. 2003. Effect of dietary mannanoligosaccharide and sodium chlorate on bacterial shedding in weaned pigs challenged with *Salmonella enterica* serotype Typhimurium (ST). J. Anim. Sci. 81(Suppl. 2):38. (Abstr.)
121. **Burkey, T.E.**, K.A. Skjolaas and J.E. Minton. 2003. Early expression of toll-like receptors in porcine jejunal epithelial cells following treatment with lipopolysaccharide, *Salmonella* Typhimurium, and *Salmonella* Choleraesuis. 84th Conference of Research Workers in Animal Diseases, Abstr. 59P. Chicago, IL.
122. Barker, M. R., S. S. Dritz, J. C. Nietfeld, J. E. Minton, J. M. DeRouchey, K. M. Bond, D. J. Lee, and **T. E. Burkey**. 2003. Corn particle size and pelleting influence on fecal shedding and enteric colonization of *Salmonella enterica* serotype Typhimurium. J. Anim. Sci. 81(Suppl. 2):50. (Abstr.)
123. **Burkey, T.E.**, S.S. Dritz, J.C. Nietfeld, B.J. Johnson and J.E. Minton. 2002. Effect of dietary mannanoligosaccharide (MOS) and sodium chlorate (CHL) on insulin-like growth factor 1 (IGF-1) in weaned pigs challenged with *Salmonella enterica* serotype Typhimurium (ST). FASEB J. 16:A970.
124. **Burkey, T.E.**, S.S. Dritz, J.C. Nietfeld, B.J. Johnson and J.E. Minton. 2002. Effect of dietary mannanoligosaccharide (MOS) and sodium chlorate (CHL) on growth performance of weaned

pigs challenged with *Salmonella enterica* serotype Typhimurium (ST). J. Anim. Sci. 80(Suppl. 2):68. (Abstr.)

125. **Burkey, T.E.**, S.S. Dritz, J.C. Nietfeld, B.J. Johnson and J.E. Minton. 2002. Effect of dietary mannanoligosaccharide (MOS) and sodium chlorate (CHL) on growth performance of weaned pigs challenged with *Salmonella enterica* serotype Typhimurium (ST). 83rd Conference of Research Workers in Animal Diseases, Abstr. 106P. Chicago, IL.