

# Curriculum Vitae and Position Responsibility Statement

## Dr. Derald Holtkamp

Current Rank: Associate Professor, Tenured  
Department of Veterinary Diagnostic and Production Animal Medicine  
College of Veterinary Medicine  
Iowa State University

Date appointed to current rank: May 1, 2012

Date appointed Tenure: May 1, 2012

Appointment Base: A

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## **Position Responsibility Statement**

Teaching	15%
Research	35%
Professional Practice and Outreach	45%
Institutional Service	5%

### ***Position Responsibility Statement, 2009-Present***

Dr. Derald Holtkamp is an associate professor in the swine unit of the Food Supply Veterinary Medicine Section of the Department of Veterinary Diagnostic and Production Animal Medicine (VDPAM) in the College of Veterinary Medicine at Iowa State University. His responsibilities are approximately 35% research, 15% teaching, 45% professional practice and outreach and 5% effort towards institutional service. He is expected to establish an extramurally funded research program in an appropriate area of swine production medicine. Teaching includes participation in the VDPAM curriculum for both professional and graduate students. Dr. Holtkamp is expected to be a national resource for addressing current production, health, and financial issues facing the Iowa and North American pork industries.

### **Position Responsibility Statement, 2006-2008**

Dr. Derald Holtkamp is an assistant professor in the swine unit of the Food Supply Veterinary Services Section of the Department of Veterinary Diagnostic and Production Animal Medicine (VDPAM) in the College of Veterinary Medicine at Iowa State University. His responsibilities will be approximately 45% research, 10% teaching, 40% professional practice and outreach and 5% effort towards institutional service. He will be expected to establish an extramurally funded research program in an appropriate area of swine production medicine. Teaching will include participation in the VDPAM curriculum for both professional and graduate students. Dr. Holtkamp will be expected to be engaged in and become a national resource for addressing current production, health, and financial issues facing the Iowa and North American pork industries. Modified in 2008 to reflect increased professional practice and outreach responsibilities.

## Education

### *Professional*

#### **Doctor of Veterinary Medicine**

Iowa State University, May 1997

### *Graduate*

#### **Master of Science; Agricultural Economics**

Iowa State University, May 1990

Major Professor; Dr. Stanley R. Johnson

### *Undergraduate*

#### **Bachelor of Science; Agricultural Business, Minor in Statistics**

Iowa State University, May 1985

## Professional Experience

***Professor of Swine Production Medicine, Iowa State University.*** Ames, Iowa. July 2019 to present.

***Associate Professor of Swine Production Medicine, Iowa State University.*** Ames, Iowa. July 2011 to 2019.

***Assistant Professor of Swine Production Medicine, Iowa State University.*** Ames, Iowa. July 2006 to 2011.

Research focuses on biosecurity, disease risk assessment and the economics of animal health and disease with an emphasis on PRRSV and PEDV. Coordinate the Swine Veterinary Internship Program (SVIP), which provides summer internships to over 20 veterinary and undergraduate students from veterinary colleges all over the U.S. Courses taught as the primary instructor include introductory and advanced informatics for veterinary students interested in production animal medicine.

***Industry Consultant.*** The Woodlands, TX. January 2004 to July 2006. Consulted on health, production and economic issues. Developed spreadsheet based production and economic models for evaluating interventions. Clients included the National Pork Board, major animal health, biotechnology and swine production companies in U.S. and Australia.

***Technical Services Veterinarian, ADViSYS, Inc.*** The Woodlands, TX. July 2002 to January 2004. Directed trials for marketing, clinical research and regulatory purposes. Developed protocols, supervised performance of the trials, analyzed data and authored study summaries. Developed an innovative gain-share pricing model to determine the fee paid to ADViSYS for use of the DNA technology.

***Vice President of Swine Applications, MetaFarms Inc.*** Eagan, MN. September 2000 to July 2002. Worked as part of management team to create a vision for a suite of information solutions for the pork industry. Directed development and packaging of information solutions involving data warehousing, data mining and information portal technologies. Directed sales and marketing of information solutions as well as consulting services. Annual budget of \$250,000 and supervised three to five people in my division.

***Director of Pork Development, E-Markets Inc.*** Ames, Iowa. September 1999 to August 2000. Directed the creation of internet based applications for the pork industry. Identified

industry needs for which the internet is ideally suited to provide solutions. Major projects included the National Pork Production and Financial Database, development of internet based livestock exchanges and consulting with pharmaceutical companies. Annual budget of \$300,000 and supervised two people in my division.

***Assistant Professor of Swine Production Medicine, Iowa State University College of Veterinary Medicine.*** Ames, Iowa. July 1998 to September 1999. Teaching, research and extension appointment. Taught orientation to swine production medicine, introductory and advanced production medicine to fourth year veterinary students. Research topics included identification of risk factors for PRRS and impact of semen age on reproductive performance. Extension activities included consulting on health and production issues with practicing veterinarians, as well as swine production, swine genetics and pharmaceutical companies.

***Swine Veterinarian/Production Manager, Browns of Carolina.*** Warsaw, North Carolina. June 1997 to July 1998. Managed 11,000 sows on 6 farrow to feeder farms. Performed veterinary diagnostics and directed the use of antimicrobials, vaccines and other therapeutics. Monitored performance and identified problem areas on each farm. Performed periodic financial analysis for each of the farms and monitored performance relative to budgets established. Trained farm managers, department supervisors and their assistants in areas including animal husbandry, basic surgeries, necropsies, inventory management, and company procedures.

***Research Associate, Center for Agricultural and Rural Development, Iowa State University.*** Ames, Iowa. July 1988 to August 1993. Conducted economic analysis of agricultural and environmental policies. Developed economic models and conducted research studies to investigate economic impacts of proposed regulations.

## **Licensure and Accreditation**

State Licenses: Iowa, renewed in 2017

National Veterinary Accreditation Program, renewed in 2018

## **Honors**

Exemplary Faculty Mentor Award, Iowa State University in 2020

## **Publications**

### **Refereed Journal Articles, Published**

*\*Denotes student for which I served as major professor, graduate committee member or mentored during study*

38. Almeida M.N., Rotto H., Schneider P., C.Robb, Zimmerman J.J., **Holtkamp D.J.**, Rademacher C.J., Linhares D.C.L.. (2020). Collecting oral fluid samples from due-to-

wean litters. *Preventative Veterinary Medicine*, 174, 1–5. [Role: Secondary role in study design, data analysis and manuscript preparation.]

37. Silva G.S.\*, Machado G., Baker K.L.\*, Linhares, D. C. L., **Holtkamp D.J.** 2019. Machine-learning algorithms to identify key biosecurity factors and practices associated with breeding herds reporting PRRS outbreak. *Preventative Veterinary Medicine*, 171, 1–9. [Role: Secondary role in funding, data analysis and manuscript preparation.]

36. Moura, C. A.\*, Johnson, C., Baker, S., **Holtkamp D. J.**, Wang, C., Linhares, D. C. L. (2019). Assessment of immediate production impact following attenuated PRRS virus vaccination in breeding herds. *Porcine Health Management*. *Porcine Health Management*, 5(13), 1–6. [Role: Secondary role in funding, data analysis and manuscript preparation.]

35. Silva, G.\*, Graham, K.\*, Novak V.\*, **Holtkamp, D. J.**, Linhares, D. C. L. (2020). A retrospective investigation of risk factors associated with loads of pigs positive for Senecavirus A at a midwestern US packing plant during the summer of 2017. *Journal of Swine Health Production*, 28(2), 87–92. [Role: Mentor for lead author who was post-doc. Corresponding author. Primary role in funding, study design, study execution, data collection and analysis, and manuscript preparation.]

34. Mehling, S., Henao-Diaz A., Maurer J., Kluber E., Stika R.\*, Rademacher C., Zimmerman J., Gimenez-Lirola L., Wang C., **Holtkamp D.**, Main R., Karriker L., Linhares D.C.L., Breuer M., Goodell C., C. Baum, D. H. (2019). Mortality patterns in a wean-to-finish portion of a commercial swine production system. *Veterinary Sciences Journal*, 6(2), 1–11.

33. Putz A.M., Schwab C.R., Sewell A.D., **Holtkamp D.J.**, Zimmerman J.J., Baker K., Serão N.V.L., Dekkers J.C.M. (2019). The effect of a porcine reproductive and respiratory syndrome outbreak on genetic parameters and reaction norms for reproductive performance in pigs. *Journal of Animal Science*, 97(3), 1101–1116.

32. Silva G.S.\*, Corbellini L.G., Linhares D.L.C., Baker K.L.\*, **Holtkamp D.J.** 2018. Development and validation of a scoring system to assess the relative vulnerability of swine breeding herds to the introduction of PRRS virus. *Prev. Vet. Med.* [Role: Mentor for lead author who was post-doc. Corresponding author. Primary role in study execution, data collection, and manuscript preparation. Secondary role in funding, data analysis and study design.]

31. Anderson A.\*, Fitzgerald C.\*, Baker K.\*, Stika R.\*, Linhares D., **Holtkamp D.** 2018. Comparison of standard and bench entry protocols for prevention of environmental contamination due to personnel entry in a commercial swine facility. *J Swine Health Prod.* 26(4):192-199. [Role: Primary mentor for lead author who was an intern in our Swine Veterinary Internship Program. Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]

30. Schulz L.L, Hayes, D.J., **Holtkamp D.J.**, Swenson D.A. 2018. Economic impact of university veterinary diagnostic laboratories: A case study. *Prev. Vet. Med.* 151:5-12. doi: 0.1016/j.prevetmed.2017.12.01 [Role: Secondary role in funding, study design, execution of study, data collection and manuscript preparation.]
29. Baker K.\*, Mowrer C., Zhang J., Ramirez A., Karriker L., **Holtkamp D.J.** 2018. Evaluation of a peroxygen-based disinfectant for inactivation of porcine epidemic diarrhea virus at low temperatures on metal surfaces. *Vet. Microbiol.* 214:99–107. doi: 10.1016/j.vetmic.2017.12.019 [Role: Major professor for Masters student who was lead author. Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
28. Baker K.L.\*, Thomas P.R.\*, Karriker L.A., Ramirez A., Zhang J., Wang C., **Holtkamp D.J.** 2017. Evaluation of an accelerated hydrogen peroxide disinfectant to inactivate porcine epidemic diarrhea virus in swine feces on aluminum surfaces under freezing conditions. *BMC Vet. Res.* 13:372. doi: 10.1186/s12917-017-1300-4 [Role: Major professor for Masters student who was lead author. Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
27. Amirpour Haredasht S., Polson D., Main R., Lee K., **Holtkamp D.**, Martínez-López B. 2017. Modeling the spatio-temporal dynamics of porcine reproductive & respiratory syndrome cases at farm level using geographical distance and pig trade network matrices. *BMC Vet Res.* 201713:163. doi: 10.1186/s12917-017-1076-6 [Role: Secondary role in study design and manuscript preparation.]
26. Canon A.J., Lauterbach N., Bates J., Skoland J., Thomas P.\*, Ellingson J., Ruston C., Breuer M., Gerardy K.\*, Hershberger N., Te Grotenhuis T., Hayman K., Koethe A.\*, Buckley A., **Holtkamp D.**, Karriker L. 2017. Video-augmented pyramid training to increase diagnostic sampling capacity during emergency veterinary response and to evaluate clinical competencies. *J Am Vet Med Assoc.* 2017;250:1395–1399. [Role: Secondary role in execution of study, data collection and manuscript preparation.]
25. **Holtkamp D.J.**, Myers J.\*, Thomas P.\*, Karriker L., Ramirez A., Zhang J., Wang C. 2017. Efficacy of an accelerated hydrogen peroxide disinfectant to inactivate porcine epidemic diarrhea virus in swine feces on metal surfaces. *Can. J. Vet. Res.* 2017;81(2):100-107. [Role: Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
24. Lee K., Polson D., Lowe E., Main R., **Holtkamp D.**, Martínez López B. 2017. Unraveling the contact patterns and network structure of pig shipments in the United States and its association with porcine reproductive and respiratory syndrome virus (PRRSV) outbreaks. *Prev. Vet. Med.* 138:113–123. doi:10.1016/j.prevetmed.2017.02.001 [Role: Secondary role in study design and manuscript preparation.]

23. Baker K.L.\*, Mowrer C., Canon A., Linhares D.C.L., Rademacher C., Karriker L.A., **Holtkamp D.J.** 2017. Systematic epidemiological investigations of cases of Senecavirus A in US swine breeding herds. *Transbound Emerg Dis.* 64:11–18. doi:10.1111/tbed.12598. [Role: Major Professor for Masters student who was lead author. Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
22. Canning P., Canon A., Bates J., Gerardy K.\*, Linhares D. C. L., Pineyro P., Schwartz K., Rademacher C., **Holtkamp D.J.**, Karriker L. 2016. Neonatal mortality, vesicular lesions and lameness associated with Senecavirus A in a U.S. sow farm. *Transbound Emerg Dis.* 63:373–378. doi:10.1111/tbed.12516. [Role: Developed the epidemiological survey used to collect data for this study. Secondary role in study design, execution, data collection and manuscript preparation.]
21. Peters BM.\*, Krantz S.A, **Holtkamp D.J.**, Wang C., Galina Pantoja L. 2016. Reference values for immunocrit ratios to assess maternal antibody uptake in 1-day-old piglets. *J Swine Health Prod.* 24(1):36–41. [Role: Primary role in analysis of data and secondary role in manuscript preparation. Mentored lead author who was intern in our Swine Veterinary Internship Program.]
20. Schneider P.T.\*, Zhang J., Ramirez A., **Holtkamp D.J.** 2015. An evaluation of disinfection protocols to reduce virus transmission via livestock transport vehicles. *J Swine Health Prod.* 23(6):306–316. [Role: Major Professor for Masters student who was lead author. Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
19. Thomas P.\*, Karriker L., Ramirez A., Zhang J., Ellingson J., **Holtkamp D.J.** 2015. Evaluation of time and temperature sufficient to inactivate PEDV in swine feces on metal surfaces. *J Swine Health Prod.* 23(2):84-90. [Role: Major Professor for Masters student who was lead author. Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
18. Perez A., Davies P., Goodell C., **Holtkamp D.**, Mondaca-Fernández E., Poljak Z., Tousignant S., Valdes-Donoso P., Zimmerman J., Morrison R. 2015. Lessons learned and knowledge gaps about the epidemiology and control of porcine reproductive and respiratory syndrome virus in North America. *J. Am. Vet. Med.* 246 (12):1304-1317. [Role: Completed literature review of publications related to between-farm spread of PRRSV, primary author of one section of manuscript.]
17. Gerber, P. F., Gong, Q., Huang, Y. W., Wang, C., **Holtkamp, D.**, & Opriessnig, T. 2014. Detection of antibodies against porcine epidemic diarrhea virus in serum and colostrum by indirect ELISA. *The Veterinary Journal.* 202:1, 33–36. doi: 10.1016/j.tvjl.2014.07.018. [Role: Provided pigs used in study, secondary role in manuscript preparation.]



16. **Holtkamp D.J.**, Lin H.\*, Wang C, Polson D.D. 2013. Evaluation of an objective risk scoring system for assessing the likelihood of virus introduction in porcine reproductive and respiratory syndrome virus-free breed-to-wean sow herds in the U.S. *Open Journal of Veterinary Medicine*. 3 168-175. [Role: Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
15. **Holtkamp D.J.**, Kliebenstein J.B., Neumann E.J., Zimmerman J.J., Rotto H., Yoder T.K., Wang C., Yeske P., Mowrer C. Haley C. 2013. Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on United States pork producers. *J Swine Health Prod*. 21(2):72-84. [Role: Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
14. Lin H.\*, Wang C., Liu P.\*, **Holtkamp D.J.** 2012. Construction of disease risk scoring systems using logistic group lasso: application to porcine reproductive and respiratory syndrome survey data, *J. Appl. Stat.* 40:4, 736-746. doi:10.1080/02664763.2012.752449. [Role: Committee member for PhD student who was lead author. Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
13. Bottoms K., Poljak Z., Dewey C., Deardon R., **Holtkamp D.J.**, Friendship R. 2012. Investigation of strategies for the introduction and transportation of replacement gilts on southern Ontario sow farms. *BMC Vet. Res.* 8:217. doi:10.1186/1746-6148-8-217. [Role: Provided data, secondary role in manuscript preparation.]
12. Bottoms K., Poljak Z., Dewey C., Deardon R., **Holtkamp D.J.**, Friendship R. 2012. Evaluation of external biosecurity practices on southern Ontario sow farms. *Prev. Vet. Med.* 109:1-2, 58-68. <http://dx.doi.org/10.1016/j.prevetmed.2012.08.013>. [Role: Provided data, secondary role in manuscript preparation.]
11. **Holtkamp D.J.**, Lin H.\*, Wang C., O'Connor A. 2012. Classifying herds according to whether they reported clinical PRRS outbreaks in the previous 3 years using data collected by the community of veterinarians who are members of the American Association of Swine Veterinarians. *Prev. Vet. Med.* 106:1, 42–52. [Role: Corresponding author. Primary role in funding, study design, execution, data collection, data analysis and manuscript preparation.]
10. Buhr B.L., **Holtkamp D.J.**, 2011. Sornsen S. Healthy competition in the livestock pharmaceutical industry. *Choices*. 26:1 7p. [Role: Provided data and ideas for some sections. Primary role in manuscript preparation for some sections.]
9. **Holtkamp D.J.**, Polson D.D., Torremorell M. and committee members Morrison B. (chair), Classen D.M., Becton L., Henry S., Rodibaugh M.T., Rowland R.R., Snelson H., Straw B., Yeske P., Zimmerman J. 2011. Terminology for classifying swine herds by PRRS virus status. *J Swine Health Prod*. 19(1):44-56. [Role: Created original framework of the classification system with Polson and took the lead role in coordinating the

activities of the committee to develop the final version of the classification system.  
Primary role in manuscript preparation and corresponding author.]

8. Anderson S.L., Vacek J.R., MacHarg M.A., **Holtkamp D.J.** 2011. Incidence of incisional complications and associated risk factors using a right ventral paramedian celiotomy in 159 horses. *Vet. Surg.* 40: 82–89. [Role: Data analysis and secondary role in manuscript preparation.]

7. King D., Painter, T., **Holtkamp D.J.**, DuBois P., Wang C. 2010. Effect of injection tool on neck/head abscess incidence. *J Swine Health Prod.* 18(6):290-293. [Role: Primary role in data analysis and secondary role in manuscript preparation.]

6. **Holtkamp D.J.**, Yeske P.E., Polson D.D., Melody J.L., Philips R.C. 2010. A prospective cohort study evaluating duration of breeding herd PRRS virus-free status and its relationship with measured risk. *Prev. Vet. Med.* 96:3-4 186-193. doi:10.1016/j.prevetmed.2010.06.016. [Role: Corresponding author. Primary role in data analysis and manuscript preparation. Secondary role in data collection]

5. Hurd S., Vaughn, M., **Holtkamp, D.J.**, Dickson, J., Warnick, L. 2010. Quantitative risk from fluoroquinolone-resistant *Salmonella* and *Campylobacter* due to treatment of dairy heifers with enrofloxacin for bovine respiratory disease. *Foodborne Pathog. Dis.* 7:11 1305-1322. doi:10.1089/fpd.2010.0550. [Role: Developed the quantitative model used for the analysis. Primary role in data collection, data analysis. Secondary role in manuscript preparation.]

4. Woods A.L., McDowell E.J.\*, **Holtkamp D.J.**, Gillespie T.G. 2009. Reproductive failure associated with porcine parvovirus and porcine circovirus type 2 coinfection. *J Swine Health Prod.* 17(4):210-216. [Role: Secondary role in data collection, data analysis, and manuscript preparation.]

3. Thacker E.L., **Holtkamp D.J.**, Khan A., Brown P., Draghia-Akli R. 2006. Plasmid-mediated GHRH efficacy in reducing disease associated with *Mycoplasma hyopneumoniae* and porcine reproductive and respiratory syndrome virus infection. *J. of Anim. Sci.* 84:733-742. [Role: Primary role in study design, execution, data collection and data analysis. Secondary role in manuscript preparation.]

2. Feinerman E., Herriges J.A., **Holtkamp D.J.** 1992. Crop insurance as a mechanism for reducing pesticide usage: A representative farm analysis. *Rev. Agric. Econ.* 14:2 169-186. [Role: Developed economic model for analysis and secondary role in manuscript preparation.]

1. **Holtkamp D.J.** 1984. Lumber futures, price expectations, and short-run production adjustments in the softwood lumber industry. *Am. J. Agric. Econ.* 66: 919-922. [Role: Developed economic model for analysis and corresponding author.]

### **Refereed Journal Articles, Accepted but not yet published**

Brown, J., Karriker, L. A., Ramirez, A., Holtkamp, D. J., Gauger, P. C., Gabler, N., & Baum, D. H. (2019). Porcine Epidemic Diarrhea Virus Antibody Measured by Fluorescent Focus Neutralization and Cytometric Fluorescent Neutralization Assays. *JVDI*.

### **Refereed Journal Articles, Submitted but not yet accepted**

*\*Denotes student for which I served as major professor, graduate committee member or mentored during study*

### **Refereed Journal Articles, In preparation**

*\*Denotes student for which I served as major professor, graduate committee member or mentored during study*

Ruston, C., Linhares, D. C. L., Zhang, J., **Holtkamp, D. J.** (2019). Update on biosecurity research: UVC supply entry procedure and introduction of staged loading for Market loading.

Ruston C., Linhares D.C.L., **Holtkamp D.J.** Evaluation of a staged loading procedure for the load-out of market pigs to prevent the transfer of swine pathogen-contaminated particles from livestock trailers to the barn.

Neat R.\*, Zhang J., Hoang H., **Holtkamp D.** Evaluation of washing-disinfectant-TADD conditions required to produce a negative PCR result when monitoring the presence of PRRSV on metal surfaces. (In preparation)

Mowrer C., **Holtkamp D.J.**, Ramirez A., Halbur P.G. Swine Veterinary Internship Program: Enhancing the value of the veterinary education. *J. Vet. Med. Educ.* (In preparation)

### **Chapters in Books**

4. Marois-Créhan C., Segalés, J., **Holtkamp, D.**, Chae, C., Deblanc, C., Opriessnig, T., Fablet, C. (2019). Interactions of *Mycoplasma hyopneumoniae* with other pathogens and economic impact. *In: Mycoplasmas in swine: Maes D., Pieters M., Sibila M. (eds), Editor and pp. In press.*

3. Zimmerman, J. J., Dee, S., Holtkamp, D. J., Murtaugh, M., Stadejek T., Stevenson, G. W., Torremorell, M., Yang, H., Zhang, J. (2019). Porcine reproductive and respiratory syndrome viruses (porcine arteriviruses). *In: Diseases of Swine, 11th edition.* Zimmerman J.J, Karriker L.A., Ramirez A., Schwartz K.J., Stevenson G.W (eds.). Hoboken NJ: John Wiley and Sons, Inc. pp. 685-708.

2. Bouzaher, A., Shogren J., Gassman P., **Holtkamp D.J.**, Manle A. 1995. Use of a linked biophysical and economic modeling system to evaluate risk-benefit tradeoffs of corn herbicide Use in the Midwest. In: *Agrochemical Environmental Fate: State of the Art*. M. Leng, E. Leovey, P. Zubkoff (eds.). CRC Press Lewis Publishers, Boca Raton, Florida, pp. 369-381

1. Bouzaher, A., **Holtkamp D.J.**, Reese R., Shogren J. 1995. Economic and resource impacts of policies to increase organic carbon in agricultural soils. In: *Soil Management and Greenhouse Effect*. R. Lal, J. Kimble, E. Levine, B. A. Stewart (eds.). Lewis Publishers, London, Chapter 26, pp. 309-328.

### **Papers Published in Proceedings**

*\*Denotes student for which I served as major professor, graduate committee member or mentored during stud*

131. Stika R.\* , **Holtkamp D.**, Goodell C., Lowe E., Kluber E., Baum D., Maurer J., Zhang M., Bi R., Wang C., Zimmerman J., Gimenez-Lirola L., Rademacher C., Playter S., Schmaling E. 2019. Measuring the respiratory pathogen burden in growing pigs to estimate the impact of disease. In: Proc. 10th European Symposium of Porcine Health Management. Utrecht, Netherlands. May. pp. ?.

130. Moura C, **Holtkamp D.**, Linhares D. 2019. Economic and production benefit of 2 PRRS MLV doses compared to a single dose vaccination program on growing pigs. In: Proc. Preconference Seminar, Conducting effective outbreak investigations. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. pp. 44-46.

129. Baker K.L.\* , **Holtkamp D. J.** 2019. Conducting efficient and comprehensive epidemiological investigations of outbreaks. In: Proc. Preconference Seminar, Conducting effective outbreak investigations. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. pp. 7-9.

128. Neat R.\* , Clavijo M., Mowrer C., **Holtkamp D.** 2019. Resources for conducting epidemiological investigations of outbreaks available through SHIC. In: Proc. Preconference Seminar, Conducting effective outbreak investigations. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. p. 10.

127. **Holtkamp D.J.**, Baker K.L.\* , Ruston C.\* , Neat R.\* , Clavijo M.J., Anderson A.V\*., Mowrer C. 2019. Tips for conducting investigations and preparing reports. In: Proc. Preconference Seminar, Conducting effective outbreak investigations. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. pp. 11-17.

126. Almeida M., Zimmerman J., **Holtkamp D.**, Rademacher C., Linhares D. 2019. Detecting PRRSV at low prevalence in due-to-wean piglets using oral fluids. *In: Proc. Preconference Seminar, Monitoring and surveillance 2.0. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. pp. 7-8.*
125. López W.A., **Holtkamp D.J.**, Angulo J., Ramirez A., Linhares D.C.L. 2019. PRRS transmission: On-farm production practices. *In: Proc. Preconference Seminar, Biosecurity. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. pp. 15-18.*
124. Mehling S.C., Maurer J., Kluber E., Stika R.\*, Rademacher C., Zimmerman J., Giménez-Lirola L., Wang C., **Holtkamp D.**, Main R., Baum D. 2019. Detection of pig death patterns during the wean-to-finish period, differences in profitability, and association to management practices and presence of endemic pathogens. *In: Proc. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. pp. 281-282.*
123. Ruston C.\*, **Holtkamp D.J.** 2019. Development of a web-based application for rapid response epidemiological investigations, risk assessments and biosecurity benchmarking. *In: Proc. Preconference Seminar, Conducting effective outbreak investigations. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. pp. 24-25.*
122. Silva G.S., Machado G., Baker K.\*, **Holtkamp D.**, Linhares D. C. L. 2019. Investigating biosecurity aspects related to PRRSV outbreaks. *In: Proc. 50<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. March. pp. 40-42.*
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#### **Technical Publications (not peer reviewed)**

*\*Denotes student for which I served as major professor, graduate committee member or mentored during study*

55. **Holtkamp D.**, Linhares D., Lopez W., de Sousa e Silva G., Morrison R., Vilalta C. Monitoring and updating the value of productivity losses due to porcine reproductive and respiratory syndrome virus. 2018. Interim report for the National Pork Board. Des Moines, Iowa.

54. Mowrer C., **Holtkamp D.J.**, Graham K.\* , Baker K.\* , Clavijo M., Linhares D. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. 2018. IPPA Project Progress Report. Des Moines, Iowa.

53. Baker K.\* , Silva G.\* , Morrison R. , Vilalta C., **Holtkamp D.**, Linhares D. Comparison of biosecurity aspects between swine breeding herds with low and high incidence of porcine reproductive and respiratory syndrome virus outbreaks. 2018. Final report for the Swine Health Information Center. Des Moines, Iowa.

52. Baker S.\* , Johnson C., **Holtkamp D.J.**, Linhares D.C.L. Effect of attenuated PRRSV on short term and long term whole herd productivity. 2018. Preliminary report for the American Association of Swine Veterinarians Foundation. Perry, Iowa.

51. Neat R.\* , Mowrer C., Clavijo M., Linhares D.C.L., **Holtkamp D.J.** Development and support of an industry rapid response program for epidemiological investigations of emerging, transboundary and endemic swine diseases with known etiology. 2017. Interim report for the Swine Health Information Center. Des Moines, Iowa.

50. **Holtkamp D.**, Linhares D., Lopez W.\*, Silva G.\*, Morrison R., Vilalta C. Monitoring and updating the value of productivity losses due to porcine reproductive and respiratory syndrome virus. 2017 (October). Interim report for the National Pork Board. Des Moines, Iowa.
49. **Holtkamp D.**, Linhares D., Lopez W.\*, Silva G.\*, Morrison R., Vilalta C. Monitoring and updating the value of productivity losses due to porcine reproductive and respiratory syndrome virus. 2017 (April). Interim report for the National Pork Board. Des Moines, Iowa.
48. Neat R.\*, **Holtkamp D.J.**, Baker K.\*, Linhares D., Mowrer C. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. 2017. IPPA Project Progress Report. Des Moines, Iowa.
47. Neat R.\*, **Holtkamp D.J.** PRRS outbreak investigations: Lessons learned. 2017. Report to producers in the IPPA funded PRRS Outbreak Investigation Program.
46. Fitzgerald C.\*, Baker K.\*, Anderson A.\*, Stika R.\*, Linhares D., **Holtkamp D.** 2017. Comparison of standard and bench entry protocols for prevention of environmental contamination due to personnel entry in a commercial swine facility. 2016. Final report for the AASV Foundation. Perry, Iowa.
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44. Schulz L., Hayes D., **Holtkamp D.** Contribution of the Iowa State Veterinary Diagnostic Laboratory to Iowa's livestock sector and to Iowa. 2016. Report for the Iowa State University Veterinary Diagnostic Laboratory. Ames, Iowa.
43. Neat R.\*, **Holtkamp D.J.**, Baker K.\*, Linhares D., Mowrer C. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. 2016. IPPA Project Progress Report. Des Moines, Iowa.
42. Neat R.\*, **Holtkamp D.J.** PRRS outbreak investigations: Lessons learned. 2016. Report to producers in the IPPA funded PRRS Outbreak Investigation Program.
41. **Holtkamp D.**, Linhares D., Silva G.\*, Morrison R., Betlach C. Monitoring and updating the value of productivity losses due to porcine reproductive and respiratory syndrome virus. 2016 (October). Interim report for the National Pork Board. Des Moines, Iowa.
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syndrome virus. 2016 (April). Interim report for the National Pork Board. Des Moines, Iowa.

39. **Holtkamp D.J.**, Gerardy K.\*, Mowrer C., Karriker L., Ramirez A., Zhang J. Evaluation of an accelerated hydrogen peroxide disinfectant and a chlorine dioxide disinfectant to inactivate porcine epidemic diarrhea virus in swine packing plant dock and unloading areas. 2016. Final Report for the National Pork Board. Des Moines, Iowa.

38. **Holtkamp D.J.**, Linhares D., Wedel K., Gerardy K.\*, Mowrer C. Iowa Select Farms: prospective PRRSV risk assessment summary. 2016. Report to Iowa Select Farms. Iowa Falls, Iowa.

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34. **Holtkamp D.J.**, Thomas, P.\*, Ramirez, A., Karriker, L., Zhang, J. Evaluation of an accelerated hydrogen peroxide disinfectant to inactivate porcine epidemic diarrhea virus in swine feces on metal surfaces under freezing conditions. 2015. Interim report for the National Pork Board. Des Moines, Iowa.

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32. **Holtkamp D.J.** Development of standard plans, forms and summary reports for outbreak investigations conducted by rapid response teams. 2015. Interim report for the National Pork Board. Des Moines, Iowa.

31. Thomas P.\*, Karriker L., Ramirez A., Zhang J., Ellingson J., **Holtkamp D.J.** Evaluation of the efficacy of Stalosan F<sup>®</sup> for inactivating porcine epidemic diarrhea virus (PEDV) in swine feces on the surface of trailers used to haul live pigs. 2014. Final report for the National Pork Board. Des Moines, Iowa.

30. Thomas P.\*, Karriker L., Ramirez A., Zhang J., Ellingson J., **Holtkamp D.J.** Evaluation of time and temperature sufficient to inactivate PEDV in swine feces on metal surfaces. 2014. Final report for the National Pork Board. Des Moines, Iowa.
29. **Holtkamp D.J.**, Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. 2014. Interim report for the Iowa Pork Producers Association. Des Moines, Iowa.
28. Thomas P.\*, Karriker L., Ramirez A., Zhang J., Ellingson J., **Holtkamp D.J.** Evaluation of the efficacy of Stalosan F<sup>®</sup> for inactivating porcine epidemic diarrhea virus (PEDV) in swine feces on the surface of trailers used to haul live pigs. 2013. Interim report for the National Pork Board. Des Moines, Iowa.
27. **Holtkamp D.J.**, Rosengren L., Morrison R. Development of standard methods to compare surveillance between regional porcine reproductive and respiratory virus control and elimination projects. 2013. Interim report for the National Pork Board. Des Moines, Iowa.
26. **Holtkamp D.J.**, Rosengren L., Morrison R. Development of standard methods to compare surveillance between regional porcine reproductive and respiratory virus control and elimination projects. 2013. Final report for the National Pork Board. Des Moines, Iowa.
25. Thomas P.\*, Karriker L., Ramirez A., Zhang J., Ellingson J., **Holtkamp D.J.** Evaluation of time and temperature sufficient to inactivate PEDV in swine feces on metal surfaces. 2013. Interim report for the National Pork Board. Des Moines, Iowa.
24. Thomas P.\*, Karriker L., Ramirez A., Zhang J., Ellingson J., **Holtkamp D.J.** Evaluation of Stalosan F<sup>®</sup> disinfectant to inactivate porcine epidemic diarrhea virus and porcine reproductive and respiratory virus when applied to commercial hog trailers. 2013. Interim report for the National Pork Board. Des Moines, Iowa.
23. **Holtkamp D.J.**, Baker, R.B., McKean, J., Zimmerman J.J. Development of a model for regional control and elimination of PRRS virus in Iowa. 2013. Final report for USDA PRRS Coordinated Agricultural Project (PRRS-CAP II).
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18. **Holtkamp D.J.**, Kliebenstein J.B., Neumann E.J., Zimmerman J.J., Rotto H., Yoder T.K., Wang C., Yeske P., Mowrer C. Haley C. 2011. Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. Final report for the National Pork Board. Des Moines, Iowa.
17. **Holtkamp D.J.**, Torremorell M., Main R., Lowe J., Waddell J., Yeske P., Polson D.D. 2010. Development of new risk assessments and enhancements to the web application for the Production Animal Disease Risk Assessment Program. Final report for the National Pork Board. Des Moines, Iowa.
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15. **Holtkamp D.J.**, Karriker L. Evaluation of the benefit of two National Pork Board funded research projects to support more informed decisions on investments in PRRS research. 2008. Final report for the National Pork Board. Des Moines, Iowa.
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13. Bouzaher A., Shogren J.F. **Holtkamp D.J.**, Gassman P.W., Archer D., Lakshminarayan P.G., Carriquiry A.L., Reese R., Kakani D., Furtan W.H., Izaurralde R.C., Kiniry J. 1996. Agricultural policies and soil degradation in western Canada: An agro-ecological economic assessment. Report 5: Project Summary. Staff Report 96-SR 83. Center for Agricultural and Rural Development. Ames, Iowa.
12. Bouzaher A., Shogren J.F., **Holtkamp D.J.**, Gassman P.W., Archer D., Lakshminarayan P.G., Carriquiry A.L., Reese R., Kakani D., Furtan W.H., Izaurralde R.C., Kiniry J. 1996. Agricultural policies and soil degradation in western Canada: An agro-ecological economic assessment. Report 4: Modifications to CRAM and policy evaluation results. Staff Report 96-SR 82. Center for Agricultural and Rural Development. Ames, Iowa.
11. Bouzaher A., Shogren J.F., **Holtkamp D.J.**, Gassman P.W., Archer D., Lakshminarayan P.G., Carriquiry A.L., Reese R., Furtan W.H., Izaurralde R.C., Kiniry J. 1995. Agricultural policies and soil degradation in western Canada: An agro-ecological economic assessment. Report 3. The integration of the environmental and economic

components. Staff Report 95-SR 75. Center for Agricultural and Rural Development. Ames, Iowa.

10. Bouzaher A., Shogren J.F., **Holtkamp D.J.**, Gassman P.W., Archer D., Lakshminarayan P.G., Carriquiry A.L., Reese R. 1994. Agricultural policies and soil degradation in western Canada: An agro-ecological economic assessment, Report 2: The environmental modeling system. Staff Report 94-SR 69. Center for Agricultural and Rural Development. Ames, Iowa.

9. Bouzaher A., **Holtkamp D.J.**, Lakshminarayan P.G., Gassman P.W., Reese R., Capmbell T. 1993. Atrazine and water quality: An evaluation of restricting atrazine use on corn and sorghum to postemergent applications, CEEPES Atrazine Project Research Memo 6. Staff Report 93-SR 68. Center for Agricultural and Rural Development. Ames, Iowa.

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7. Bouzaher A., Gassman P.W., **Holtkamp D.J.**, Archer D., Carriquiry A.L., Shogren J.F., Reese R., Lakshminarayan P.G., Furtan W.H., Izaurralde R.C., Kiniry J. 1993. Agricultural policies and soil degradation in western Canada: An agro-ecological economic assessment, Report 1: Conceptual framework. Staff Report 93-SR 65. Center for Agricultural and Rural Development. Ames, Iowa.

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5. Bouzaher A., Cabe R., Shogren J.F., Carriquiry A.L., **Holtkamp D.J.**, Gassman P.W., Archer D., Lakshminarayan P.G., Campbell T., Wang Q., Manale A., Taylor R. 1992. Atrazine and water quality: An updated CEEPES analysis, CEEPES Atrazine Project Research Memo 5. Staff Report 92-SR 59. Center for Agricultural and Rural Development. Ames, Iowa.

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3. **Holtkamp D.J.** 1990. Farm-level evaluation of planting flexibility proposals for the 1990 Farm Bill, effects on use of corn rootworm insecticides and nitrogen. Staff Report 90-SR 44. Center for Agricultural and Rural Development. Ames, Iowa.

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1. Frohberg K., Haney D., Holt M.T., **Holtkamp D.J.**, Johnson S.R., Meyers W.H., Thompson L., Traxler G., Westhoff P.C. 1989. National and regional implications of targeting the conservation reserve. Staff Report 89-SR 39. Center for Agricultural and Rural Development. Ames, Iowa.

### **Outreach Publications**

*\*Denotes student for which I served as major professor, graduate committee member or mentored during study*

30. **Holtkamp, D.J.** 2019. Rapid Response Plan offers CSI team for emerging diseases. Pig Health Today. <https://pighealthtoday.com/rapid-response-plan-offers-csi-team-for-emerging-diseases/> (2/1/2019)

29. Silva G.S, **Holtkamp D.J.**, Rademacher C., Ramirez A., Karriker L., Linhares D.C.L. 2018. Biosecurity at your hands: measure risks to control losses. National Hog Farmer. <https://www.nationalhogfarmer.com/animal-health/biosecurity-your-hands-measure-risks-control-losses> (10/1/2018)

28. Almeida M.N., Silva G.S., Ramirez A., **Holtkamp D.J.**, Rademacher C., Karriker L., Linhares D.C.L. 2018. Monitoring PRRS virus at low prevalence. National Hog Farmer. <https://www.nationalhogfarmer.com/animal-health/monitoring-prrs-virus-low-prevalence> (10/1/2018)

27. **Holtkamp, D.J.** 2018. Crossing the line: Biosecurity for employee entry is still a work in progress. Pig Health Today. <https://pighealthtoday.com/crossing-the-line-biosecurity-for-employee-entry-is-still-a-work-in-progress/> (5/1/2018)

26. Mowrer C., **Holtkamp D.J.** Swine Veterinary Internship Program - Behind every good intern is a great mentor. 2018. American Association of Swine Veterinarians e-letter. <https://www.aasv.org/news/story.php?id=10726> (4/25/2018)

25. **Holtkamp, D.J.** 2017. The cost of being wrong: Why cost-benefit analyses are replacing guesswork on swine farms. Pig Health Today. [https://pighealthtoday.com/the-cost-of-being-wrong-why-cost-benefit-analyses-are-replacing-guesswork-on-swine-farms/?utm\\_source=Pig+Health+Today&utm\\_campaign=ed599af234-PGT+Lincomix+Press+Release+1+11+2018&utm\\_medium=email&utm\\_term=0\\_95d05211ae-ed599af234-185676049](https://pighealthtoday.com/the-cost-of-being-wrong-why-cost-benefit-analyses-are-replacing-guesswork-on-swine-farms/?utm_source=Pig+Health+Today&utm_campaign=ed599af234-PGT+Lincomix+Press+Release+1+11+2018&utm_medium=email&utm_term=0_95d05211ae-ed599af234-185676049) (3/22/2018)

24. **Holtkamp, D.J.** 2017. Lessons learned from PRRS outbreak investigations. Pig Health Today. <https://pighealthtoday.com/lessons-learned-from-prrs-outbreak-investigations/> 11/10/2017)

23. Neat R.\*, Clavijo M., **Holtkamp D.** 2017. Rapid response epidemiological investigations in the event of a swine disease emergency. National Hog Farmer. <http://www.nationalhogfarmer.com/animal-health/rapid-response-program-prepares-swine-industry-disease-emergency> (9/5/2017)



22. Baker K.\*, **Holtkamp D.** 2017. Disinfectant inactivates PEDV under freezing conditions. National Hog Farmer. <http://www.nationalhogfarmer.com/animal-health/disinfectant-inactivates-pedv-under-freezing-conditions> (8/1/2017)
21. Ramirez A., **Holtkamp D.** 2016. PEDv survivability and disinfection research summary. 2016. National Hog Farmer. <http://www.nationalhogfarmer.com/animal-health/pedv-survivability-and-disinfection-researched> (11/3/2016)
20. Thomas P.\*, Karriker L., Ramirez A., Zhang J., Ellingson J., **Holtkamp D.J.** Methods for inactivating PEDV in hog trailers. 2014. National Pork Board summarizing four trailer sanitation for PEDV studies. <http://www.pork.org/wp-content/uploads/2014/05/npb-summary-of-4-sanitation-protocols-nov-14-c.pdf> (3/17/2015)
19. **Holtkamp, D.J.** 2014. Economics of respiratory disease. International Pig Topics, MSD Animal Health - Special edition. October 2014, pp. 8-9.
18. **Holtkamp, D.J.** 2014. Economic impact of *Mycoplasma hyopneumoniae* on pig farms. Pig333.com. [http://www.pig333.com/what\\_the\\_experts\\_say/economic-impact-of-mycoplasma-hyopneumoniae-on-pig-farms\\_8936/](http://www.pig333.com/what_the_experts_say/economic-impact-of-mycoplasma-hyopneumoniae-on-pig-farms_8936/) (9/19/2014).
17. **Holtkamp, D.J.** 2014. The path to profitability – assessing when the benefit of animal health interventions justifies the cost in wean-to-market. [http://www.pig333.com/circovirus/the-path-to-profitability-%E2%80%93-assessing-when-the-benefit-of-animal-health\\_8075/](http://www.pig333.com/circovirus/the-path-to-profitability-%E2%80%93-assessing-when-the-benefit-of-animal-health_8075/). (2/7/2014)
16. **Holtkamp, D.J.** 2013. The cost of PRRS to pork producers. Pig333.com. [http://www.pig333.com/prrs/the-cost-of-prrs-to-pork-producers\\_7135/](http://www.pig333.com/prrs/the-cost-of-prrs-to-pork-producers_7135/). (5/21/2013)
15. **Holtkamp, D.J.** 2013. Economic drivers for animal health interventions. International Pig Topics. 27:8 23.
14. Mowrer C., **Holtkamp D.J.** PADRAP newsletter. 2013. PADRAP newsletter (special PEDV edition) and American Association of Swine Veterinarians e-letter. Perry, Iowa. August.
13. **Holtkamp, D.J.** 2013. The path to profitability – assessing when the benefit of animal health interventions justifies the cost in wean-to-market. Pig333.com. [http://www.pig333.com/circovirus/the-path-to-profitability---assessing-when-the-benefit-of-animal-health\\_8075/](http://www.pig333.com/circovirus/the-path-to-profitability---assessing-when-the-benefit-of-animal-health_8075/). (2/7/2014).
12. Mowrer C., **Holtkamp D.J.** PADRAP Newsletter. 2012. PADRAP newsletter (semi-annual) and American Association of Swine Veterinarians e-letter. Perry, Iowa. March, December.

11. **Holtkamp D.J.**, Polson D.D., Torremorell M. and committee members Morrison B. (chair), Classen D.M., Becton L., Henry S., Rodibaugh M.T., Rowland R.R., Snelson H., Straw B., Yeske P., Zimmerman J. 2011. Terminologie zur Klassifizierung des PRRSV-Status von Schweineherden (Terminology for classifying swine herds by porcine reproductive and respiratory syndrome virus status). Tierärztliche Praxis G: Großtiere / Nutztiere. Stuttgart, Germany. February.
10. Mowrer C., **Holtkamp D.J.** PADRAP Newsletter. 2011. PADRAP Newsletter (semi-annual) and American Association of Swine Veterinarians e-letter. Perry, Iowa. March, December.
9. **Holtkamp D.J.** Evaluation of alternatives to increase weaning age. Pig333.com. [http://www.pig333.com/what\\_the\\_experts\\_say/evaluation-of-alternatives-to-increase-weaning-age\\_4021/](http://www.pig333.com/what_the_experts_say/evaluation-of-alternatives-to-increase-weaning-age_4021/). (3/1/2011).
8. **Holtkamp D.J.**, Yeske P. 2010. Increasing weaning age while reducing breeding herd inventory may help cut losses. National Hog Farmer. Minneapolis, Minnesota. 55:1 8-11.
7. **Holtkamp D.J.**, Melody J.L. 2009. Using risk assessment and biosecurity to fight PRRS. National Hog Farmer. Minneapolis, Minnesota. 54:11 14-16.
6. Waddell J.T., Polson D.D., **Holtkamp D.J.** 2008. Assessment of changes in breeding PRRS site risk scores in a large production system over a three-year period. American Association of Swine Veterinarians e-letter. Perry, Iowa. September.
5. **Holtkamp D.J.** 2007. Rating the main concerns of health. Pig International. Petersfield, Hampshire, UK. November.
4. **Holtkamp D.J.**, Zaabel P. 2007. When it comes to PRRS, what's your risk? Pork. Lenexa, Kansas. October.
3. **Holtkamp D.J.** 2007. Study ranks health challenges. Swine Health Report, National Institute for Animal Agriculture. Bowling Green, Kentucky. Summer 2007.
2. **Holtkamp D.J.** 2007. Measuring the risk. National Hog Farmer. Minneapolis, Minnesota. June.
1. **Holtkamp, D.J.** 2001. Costs associated with finishing variability. International Pig Topics. 16:4 15-19.

### **Spreadsheets Published**

1. **Holtkamp D.J.** 2009. Economics of weaning age calculator. Iowa Pork Industry Center. Ames, Iowa. Available at: <http://www.ipic.iastate.edu/software.html#spreadsheets>

## Web-based Software Developed

2. **Holtkamp D.J.**, Mowrer C., Garza J., Deep Gupta R. 2011. Development of PADRAP Online (version 2.0). Available at: <http://www.padrap.org>.

1. **Holtkamp D.J.**, Polson D.D. Burri B. 2007. Development of PADRAP Online (version 1.0). Available at: <http://www.padrap.org>.

## On-line Training Modules

*\*Denotes student for which I served as major professor, graduate committee member or mentored during study*

1. Neat R.\*, Mowrer C., Clavijo M., Linhares D.C.L., **Holtkamp D.J.** 2017. Rapid response corp training. Available at: <https://www.swinehealth.org/course/rapid-response-corp-training/>

## Funding

### Grants (Funded)

Linhares D.C.L, **Holtkamp D.J.** Assessing biosecurity vulnerabilities to predict the risk of new porcine reproductive and respiratory syndrome (PRRS) outbreaks. North Carolina State University. May 1, 2019. 3 years.

Karriker L.A., Holtkamp D.J., Linhares D.C.L., Rademacher C.J. Telehealth for swine medicine: tools to support shortage situations, expand surge capacity, and teach students with less biosecurity risk. United States Department of Agriculture, National Institute of Food and Agriculture. \$236,750. May 22, 2019. 3 years.

**Holtkamp D.**, Linhares D., Dion K. Prospective case-control and case-crossover study to determine the events associated with the introduction of PRRSV and PEDV/PDCoV/TGE into groups of growing pigs. Swine Health Information Center. \$159,552. May 1, 2020. 18 months.

Linhares D., Magalhaes E., Thomas P., Trevisan G., Rademacher C.J., **Holtkamp D.J.**, Zimmerman JJ. Measuring the effect of diseases on the productivity of growing pigs raised on field conditions. American Association of Swine Veterinarians Foundation - \$23,256. June 1, 2020. 1 year.

82. Linhares D., **Holtkamp D.**, Main R. Development and implementation of a domestic swine bio-surveillance monitoring and surveillance system, part 1: establishing a swine disease reporting system in the USA. Swine Health Information Center. \$90,088. 2019.

81. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Boehringer Ingelheim Animal Health. \$81,265. May 1, 2019.
80. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Merck Animal Health. \$81,181. May 1, 2019.
79. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Elanco Animal Health. \$11,630. May 1, 2019.
78. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Automed. \$11,630. May 1, 2019.
77. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Diamond V. \$12,802. May 1, 2019.
76. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Zoetis. \$164,416. May 1, 2019.
75. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Pharmgate Animal Health. \$27,262. May 1, 2019.
74. **Holtkamp D.J.** Bovine Veterinary Internship Program training grant. Merck Animal Health. \$54,815. May 1, 2019.
73. Engelken, T., **Holtkamp D.J.**, Bovine Veterinary Internship Program training grant. Boehringer Ingelheim Animal Health. \$12,879. May 1, 2019.
72. Gorden, P., **Holtkamp D.J.**, Bovine Veterinary Internship Program training grant. Boehringer Ingelheim Animal Health. \$12,172. May 1, 2019
71. **Holtkamp D.**, Zhang J., Ruston C. Efficacy of an accelerated hydrogen peroxide (AHP) disinfectant at different concentrations and contact times on the inactivation of porcine reproductive and respiratory syndrome virus (PRRSV) and porcine epidemic diarrhea virus (PEDV). Virox Technologies, Inc. \$75,100. April 1, 2019. 6 months.
70. **Holtkamp D.**, Linhares D., Clavijo M., Ruston C. Development of a web-based application for rapid response epidemiological investigations, risk assessments and biosecurity benchmarking. Swine Health Information Center. \$47,589. April 1, 2019. 6 months.
69. **Holtkamp D.**, Linhares D., Ruston C. Pilot project to evaluate the practicality of using fluorescent powder (Glo Germ) to evaluate stage loading. Swine Health Information Center. \$1,924. March 15, 2019. 6 months.
68. Lopez B.M., Main R., **Holtkamp D.J.**, Polson D., Lowe E., Liu X. Development of a novel PRRS agent-based data-driven spatial-explicit disease spread model to improve the

understanding of PRRS transmission dynamics under different epidemiological and vaccination/biosecurity scenarios and better information risk-based testing and control interventions. National Pork Board. \$88,447. October 1, 2018. 1 year.

67. Linhares D.C., **Holtkamp D.J.**, Zimmerman J., Almeida M. Family oral fluids-based PRRSV monitoring in due-to-wean piglets. Iowa Pork Producers Association. \$25,000. September 1, 2018. 1 year.

66. **Holtkamp D.J.**, Zhang J., Linhares D.C.L. Efficacy of Ultraviolet C disinfection for inactivating Senecavirus A on contaminated surfaces in swine farms and points of animal concentration. Iowa Pork Producers Association. \$29,546. September 1, 2018. 1 year.

65. **Holtkamp D.J.**, Linhares D.C.L. Silva G.S. Senecavirus A (Seneca Valley Virus) outbreak investigation data analysis. \$9,507. Swine Health Information Center. August 3, 2018. 7 months.

64. **Holtkamp D.J.**, Linhares D.C., Karriker L. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. Iowa Pork Producers Association. \$30,000. August 1, 2018. 1 year, continuation.

63. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Merck Animal Health. \$83,307. June 1, 2018.

62. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Boehringer Ingelheim Vetmedica. \$41,202. June 1, 2018.

61. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Zoetis. \$53,897. June 1, 2018.

60. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Aptimmune. \$12,479. June 1, 2018.

59. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Tonistry. \$3,929. May 21, 2018.

58. Linhares D.C., Moura C., **Holtkamp D.J.** Effect of attenuated PRRSv mass vaccination on subsequent downstream mortality. American Association of Swine Veterinarians Foundation. \$12,824. April 1, 2018, 1 year.

57. Linhares D.C., **Holtkamp D.J.**, Main R. Development and implementation of a domestic swine bio-surveillance monitoring and surveillance system. Part 1: establishing a swine disease reporting system in the USA. Swine Health Information Center. \$90,088. October 1, 2017. 2 years.

56. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Merck Animal Health. \$61,146. June 1, 2017.
55. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Boehringer Ingelheim Vetmedica. \$73,674. June 1, 2017.
54. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Zoetis. \$123,406. June 1, 2017.
53. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Pharmcosmos. \$13,505. June 1, 2017.
52. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Tonistry. \$11,681. June 1, 2017.
51. **Holtkamp D.J.** Swine Veterinary Internship Program training grant. Elanco. \$13,505. June 1, 2017.
50. **Holtkamp, D.J.,** Zhang J. Effect of disinfectants and treatment conditions on the molecular detection of porcine reproductive and respiratory syndrome virus (PRRSV) and porcine epidemic diarrhea virus (PEDV). Virox. \$26,475. June 1, 2017. 6 months.
49. **Holtkamp D.J.,** Linhares D.C., Karriker L. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. Iowa Pork Producers Association. \$26,588. May 1, 2017. 1 year, continuation.
48. Linhares D.C., Johnson C., **Holtkamp D.J.** Effect of attenuated PRRSV on short term and long term whole herd productivity. American Association of Swine Veterinarians Foundation. \$11,824. April 1, 2017, 1 year.
47. Linhares D.C., **Holtkamp D.J.,** Arruda A., Morrison B., Silva G., Vilalta C. Description of biosecurity aspects of herds with low or high PRRS incidence and comparison within and between production systems. Swine Health Information Center. \$40,619. October 1, 2016. 1 year.
46. **Holtkamp D.J.,** Linhares D.C., Karriker L., Ramirez A. Development and support of an industry rapid response program for epidemiological investigations of emerging, transboundary and endemic swine diseases with known etiology. Swine Health Information Center. \$191,353. September 1, 2016. 2 years.
45. **Holtkamp D.J.,** Gerardy K., Zhang, J, Ramirez, A., Karriker, L., Mowrer C., Chen Q. Evaluation of a peroxygen disinfectant to inactivate porcine epidemic diarrhea virus in

swine feces on metal surfaces under freezing conditions. Chemours Company FC, LLC. \$48,009. July 1, 2016, 6 months.

44. Linhares D.C., Zimmerman J.J., Rademacher C., **Holtkamp D.J.** Herd sensitivity of PRRSV-monitoring schemes on sow herds undergoing virus elimination. Boehringer Ingelheim Vetmedica, Inc. \$35,000. June 1, 2016, 2 years.

43. **Holtkamp D.J.**, Linhares D.C. Comparison of a standard entry and a bench entry protocol for prevention of environmental contamination from personnel entry in a commercial swine facility. American Association of Swine Veterinarians Foundation. \$12,500. June 1, 2016, 6 months.

42. **Holtkamp D.J.**, Linhares D.C., Karriker L. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. Iowa Pork Producers Association. \$37,628. May 1, 2016. 1 year, continuation.

41. **Holtkamp D.J.**, Linhares D.C. Monitoring and updating the value of productivity losses due to porcine reproductive and respiratory syndrome virus. National Pork Board. \$84,237. November 1, 2015. 3 years.

40. **Holtkamp D.J.**, Rademacher C., Karriker, L., Linhares D.C. Systematic epidemiological investigations of cases of Seneca valley virus in United States swine breeding herds. Swine Health Information Center. \$20,000. August 31, 2015. 6 months.

39. **Holtkamp D.J.**, Thomas, P., Ramirez, A., Karriker, L., Zhang, J. Evaluation of an accelerated hydrogen peroxide disinfectant and barn lime to inactivate porcine epidemic diarrhea virus in swine packing plant dock and unloading areas. National Pork Board. \$43,387. July 1, 2015. 6 months.

38. **Holtkamp D.J.**, Canon A., Karriker L. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. Iowa Pork Producers Association. \$33,368. May 1, 2015. 1 year, continuation.

37. Rademacher C., **Holtkamp D.J.**, Karriker L., Gauger P. Efficacy of Zoetis PEDV vaccine in reducing clinical impact of PEDV on chronically affected breeding farm. Zoetis PEDV Research 2014. \$59,078. December 15, 2014. 6 months.

36. **Holtkamp D.J.**, Thomas, P., Ramirez, A., Karriker, L., Zhang, J. Evaluation of an accelerated hydrogen peroxide disinfectant to inactivate porcine epidemic diarrhea virus in swine feces on metal surfaces under freezing conditions. National Pork Board. \$41,946. November 5, 2014. 6 months.

35. **Holtkamp D.J.** Development of standard plans, forms and summary reports for outbreak investigations conducted by rapid response teams. National Pork Board. \$5,677. October 31, 2014. 6 months.

34. **Holtkamp D.J.**, Thomas P., Ramirez A., Karriker L., Zhang J., Halbur P, Ellingson J. Evaluation of Accel<sup>®</sup> to inactivate porcine epidemic diarrhea virus in swine feces on evaluation of combinations of time and temperature sufficient to kill porcine epidemic diarrhea virus (PEDV) on the metal surface following a wash with detergent and disinfection with Synergize<sup>®</sup>. PIC North America. \$41,420. June 1, 2014, 6 months.

33. **Holtkamp D.J.**, Thomas P., Ellingson J., Ramirez A., Karriker L., Zhang J., Halbur P. Evaluation of Accel<sup>®</sup> to inactivate porcine epidemic diarrhea virus in swine feces on metal surfaces found in commercial hog trailers. Ogena Solutions, LLC. \$37,688. June 1, 2014. 3 months.

32. **Holtkamp D.J.**, Baker, R.B., Main R., Ramirez A. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. Iowa Pork Producers Association. \$12,026. May 1, 2014. 1 year, continuation.

31. Main R., Mueller K., Perez A., Connor J., Polson D., **Holtkamp D.J.**, Roth J., Anderson G., Daly R., Collins J. Linking veterinary diagnostic laboratory submissions and corresponding PEDV test results to spatiotemporal mapping tools: the future of disease management, control and elimination. National Pork Board. \$130,000. December 31, 2013. 1 year.

30. **Holtkamp D.J.**, Thomas, P., Ellingson, J., Ramirez, A., Karriker, L., Zhang, J. Evaluation of the efficacy of Stalosan<sup>®</sup> F for inactivating porcine epidemic diarrhea virus (PEDV) in swine feces on the surface of trailers used to haul live pigs. National Pork Board. \$33,726. November 1, 2013. 6 months.

29. **Holtkamp D.J.**, Thomas, P., Ellingson, J., Ramirez, A., Karriker, L., Zhang, J. Evaluation of time and temperature sufficient to kill PEDV in swine feces on metal surfaces. National Pork Board. \$25,496. July 1, 2013. 6 months.

28. **Holtkamp D.J.**, Baker, R.B., McKean, J., Zimmerman J.J. Development of a model for regional control and elimination of PRRS virus in Iowa. USDA:CSREES National Research Initiative, Competitive Grants Program 230.1 Animal and Plant Biosecurity (USDA NIFA Award 2008-55620-19132 subcontracted through Kansas State University). \$31,250. June 1, 2013. 1 year.

27. **Holtkamp D.J.**, Baker, R.B., McKean, J., Main, R., Polson, D., Cano, J.P. Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. Iowa Pork Producers Association. \$61,374. May 1, 2013. 1 year.



26. Christopher-Hennings J., Fuhrman M., Webby R., Nelson E., Fang Y., Gramer M., Huber V., **Holtkamp D.J.**, Hofer J., Clement E., Charles C., Heilman B. Influenza surveillance within Hutterian Colonies: influenza surveillance and strain comparison among human, turkey and swine populations. National Institute of Allergy and Infectious Diseases. DMID Funding Mechanism: HHSN266200700005C (DMID Protocol Number: 12-0057) \$93,570. January 1, 2013. 1 year.
25. **Holtkamp D.J.**, Rosengren L. Development of standard methods to compare surveillance between regional porcine reproductive and respiratory virus control and elimination projects. National Pork Board. \$58,926. October 1, 2012. 1 year.
24. Schneider P., **Holtkamp D.J.** An evaluation of the effectiveness of sanitation procedures that rely on disinfection with Accel<sup>®</sup> disinfectant without power washing and drying to reduce PRRS virus transmission via transport vehicles. Boehringer Ingelheim Vetmedica. \$25,000. September 1, 2012. 1 year.
23. Zimmerman J., **Holtkamp D.J.**, O'Connor A. Identifying ecologic and epidemiologic factors in the control of PRRS: A field-based approach (Year 4). USDA:CSREES National Research Initiative, Competitive Grants Program 230.1 Animal and Plant Biosecurity (USDA NIFA Award 2008-55620-19132 (PRRS-CAP II) subcontracted through Kansas State University). \$123,240. August 1, 2012. 1 year.
22. **Holtkamp D.J.** Research Initiative, Competitive Grants Program 230.1 Animal and Plant Biosecurity (USDA NIFA Award 2008-55620-19132 subcontracted through Kansas State University). \$31,250. June 1, 2012. 1 year.
21. **Holtkamp D.J.**, Baker, R.B., McKean, J., Zimmerman J.J. Development of a model for regional control and elimination of PRRS virus in Iowa. Iowa Pork Producers Association. \$72,761. March 1, 2012. 1 year.
20. Zimmerman J., **Holtkamp D.J.**, O'Connor A. Identifying ecologic and epidemiologic factors in the control of PRRS: A field-based approach (Year 3). USDA:CSREES National Research Initiative, Competitive Grants Program 230.1 Animal and Plant Biosecurity (USDA NIFA Award 2008-55620-19132 (PRRS-CAP II) subcontracted through Kansas State University). \$123,240. August 1, 2011. 1 year.
19. **Holtkamp D.J.** A Cross-sectional study of PRRSV positive swine breeding herd sites to evaluate associations between risk factors and a case definition-based number and severity of clinical PRRS episodes. Boehringer Ingelheim Vetmedica Inc. \$174,036. Year 5 funding of previous grant with same title. March 1, 2011. 1 year.
18. **Holtkamp D.J.**, Baker, R.B., McKean, J., Zimmerman J.J. Development of a model for regional control and elimination of PRRS virus in Iowa. Iowa Pork Producers Association. \$59,000. October 1, 2010. 1 year.

17. **Holtkamp D.J.**, Kliebenstein J., Neumann, E., Zimmerman J.J., Hennessey D. An economic evaluation of PRRS eradication in the United States swine herd. National Pork Board. \$79,467. October 1, 2010. 1 year.
16. **Holtkamp D.J.**, Baker, R.B., McKean, J., Zimmerman J.J. Development of a model for regional control and elimination of PRRS virus in Iowa. Iowa Pork Producers Association. \$35,000. August 1, 2010. 1 year.
15. **Holtkamp D.J.**, Baker, R.B., McKean, J., Zimmerman J.J. Development of a model for regional control and elimination of PRRS virus in Iowa. USDA:CSREES National Research Initiative, Competitive Grants Program 230.1 Animal and Plant Biosecurity (USDA NIFA Award 2008-55620-19132 subcontracted through Kansas State University). \$31,250. August 1, 2010. 20 months.
14. Zimmerman J., **Holtkamp D.J.**, O'Connor A. Identifying ecologic and epidemiologic factors in the control of PRRS: A field-based approach (Year 2). USDA:CSREES National Research Initiative, Competitive Grants Program 230.1 Animal and Plant Biosecurity (USDA NIFA Award 2008-55620-19132 (PRRS-CAP II) subcontracted through Kansas State University). \$123,241. August 1, 2010. 1 year.
13. **Holtkamp D.J.**, Baker, R.B., McKean, J., Zimmerman J.J. Development of a model for regional control and elimination of PRRS virus in Iowa. PIC North America. \$10,000. July 1, 2010. 15 months.
12. **Holtkamp D.J.** A cross-sectional study of PRRSV positive swine breeding herd sites to evaluate associations between risk factors and a case definition-based number and severity of clinical PRRS episodes. Boehringer Ingelheim Vetmedica Inc. \$149,200. Continuation Year 4 funding of previous grant with same title. February 15, 2010. 1 year.
11. Zimmerman J.J., Dee S.A., Davies P.R., **Holtkamp D.J.**, O'Connor A.M. Identifying ecologic & epidemiologic factors in the control of PRRS: A field-based approach (Year 1). USDA:CSREES National Research Initiative, Competitive Grants Program 230.1 Animal and Plant Biosecurity (USDA NIFA Award 2008-55620-19132 (PRRS-CAP II) subcontracted through Kansas State University). \$123,241. August 1, 2009. 1 year.
10. **Holtkamp D.J.**, Ramirez A., O'Connor, A., Zimmerman J.J. Assessment of PRRS biosecurity in the field: Application of the American Association of Swine Veterinarian's PRRS risk assessment for the breeding herd. USDA:CSREES National Research Initiative, Competitive Grants Program 230.1 Animal and Plant Biosecurity (USDA NIFA Award 2008-55620-19132 subcontracted through Kansas State University). \$24,300. June 1, 2009. 1 year.
9. **Holtkamp D.J.** A Cross-sectional study of PRRSV positive swine breeding herd sites to evaluate associations between risk factors and a case definition-based number and severity of clinical PRRS episodes. Boehringer Ingelheim Vetmedica Inc. \$115,000.

Continuation of previous grant with same title. January 6, 2009. Year 3 funding of previous grant with same title. 1 year.

8. **Holtkamp D.J.**, Lowe J.F., Yeske P.E., Waddell J.T., Zimmerman J.J. Quantifying risk factors for PRRS virus introduction into swine herds through the use of the PRRS risk assessment. National Pork Board. \$89,875. November 1, 2008. 3.5 years.

7. **Holtkamp D.J.** A Cross-sectional study of PRRSV positive swine breeding herd sites to evaluate associations between risk factors and a case definition-based number and severity of clinical PRRS episodes. Boehringer Ingelheim Vetmedica Inc. \$125,200. Continuation of previous grant with same title. Year 2 funding of previous grant with same title. August 1, 2008. 1 year.

6. **Holtkamp D.J.**, Burkgren T.J., Polson D.D., O'Connor A.M. Development of new risk assessments and enhancements to the web application for the Production Animal Disease Risk Assessment Program. National Pork Board. \$50,000. December 1, 2007. 1.5 year.

5. Opriessnig T.I., **Holtkamp D.J.**, Schwartz K.J., Halbur P.G. Prevalence of slaughter house condemnation due to *Erysipelothrix* sp. and further characterization of isolates associated with these cases. National Pork Board. \$35,000. May 1, 2007. 1 year.

4. **Holtkamp D.J.** A cross-sectional study of PRRSV positive swine breeding herd sites to evaluate associations between risk factors and a case definition-based number and severity of clinical PRRS episodes. Boehringer Ingelheim Vetmedica. \$25,000. April 1, 2007. 18 months.

3. **Holtkamp D.J.**, Baker R.B., Karriker L.A., Ramirez A. Incorporating entrepreneurship into swine veterinary medicine summer internship programs. Pappajohn Center for Entrepreneurship. Iowa State University. \$5,000. January 1, 2007. 1 year.

2. **Holtkamp D.J.**, Baker R.B., Polson D.D., Karriker L.A., Morrison R.B. An industry education program for understanding the risk factors associated with PRRSV breaks in negative or naïve breeding herds. National Pork Board. \$40,000. October 1, 2006. 14 months.

1. Baker R.B., **Holtkamp D.J.**, Polson D.D., Karriker L.A., Morrison R.B. Quantifying risk and evaluating the relationship between risk score and PRRS-negative herd survival. USDA PRRS Coordinated Agricultural Project (PRRS-CAP I). \$95,352. May 1, 2006. 1 year.

#### **Grants (Submitted but not yet funded)**

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Linhares D.C.L, Trevisan G., Main R., Holtkamp D. Swine Disease Management Information Program. Iowa Pork Producers Association. \$72,000. June 1, 2020. 1 year.

6. Harmon J., **Holtkamp D.J.**, Greiner L. Environmental control strategies to reduce negative productivity consequences on health challenged pigs. Iowa State University Presidential Interdisciplinary Research Seed (PIRS) Grant Program. \$48,995. February 1, 2019. 6 months.
5. Ramirez, B. Greiner L., **Holtkamp D.**, Zhang J., Derscheid R., Peschel J. Microclimate impact for precision animal management to advance antimicrobial stewardship. Iowa State University Presidential Interdisciplinary Research Initiative (PIRI). \$50,000. April 1, 2019. 12 months.
4. Machado G., Linhares D., **Holtkamp D.**, Silva G. The Use Of Applied Machine Learning Tools To Evaluate Biosecurity Aspects Patterns And Porcine Reproductive And Respiratory Syndrome Virus (PRRSv). USDA NIH, Subcontract North Carolina State University. \$99,690. May 1, 2019. 3 years.
3. Linhares D., Silva G.S., **Holtkamp D.**, Machado G. Biosecurity screening tool to identify breeding herds' risk to PRRSV outbreak using a short survey. \$60,619. April 1, 2019 1 year.
2. Brown J., Gimenez-Lirola L., Rademacher C., Gauger P., Karriker., **Holtkamp D.**, Ramirez A. Evaluation of the duration of neutralizing antibodies for PEDV in commercial sow farms. National Pork Board. \$54,542.77. June, 2018. 1 year.
1. Martínez-López B., **Holtkamp D.** pEPI-HEALTH program: Personalized epidemiology using Big Data analytics and spatio-temporal-genomic methods for better management of livestock health. USDA NIFA. \$107,601. July, 2018. 3 years.

### **Collaborations (Funded)**

3. Gauger PC, Vincent AL, Halbur PA, Zhu Z, Friedberg I, Eulenstein O, Gabler N, Berg E. Development and integration of bioinformatics tools to characterize, monitor and rapidly recognize emerging influenza viruses in swine through data driven science. Iowa State University Presidential Initiative for Interdisciplinary Research. \$125,000; April 1, 2016, 3 years. Role as collaborator: Advising on aspects of project involving economic analysis of influenza.
2. Morrison R. PRRS epidemiology literature review. National Pork Board. \$50,000. August 1, 2013. 10 months. Role as collaborator: Perform literature review and drafting section on biosecurity for porcine reproductive and respiratory syndrome (PRRS ) virus.
1. Kim WI., Seo YH., Park HD., Lee JH. Development of PRRS outbreak risk management program and chemical inhibitors against PRRS infection. Ministry for Food, Agriculture, Forestry and Fisheries. \$1,200,000. August 1, 2013, 3 years. Role as collaborator: Advising on aspects of project involving the Production Animal Disease Risk Assessment Program (PADRAP).

## **Industry Funding**

45. \$50,000, BIVI Fellowship for technical writing in swine applied field research. Boehringer Ingelheim Vetmedica. April 1, 2017.
44. \$52,450, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. January 1, 2017.
43. \$48,000, Swine Veterinary Internship Program, funded by Merck Animal Health. June 1, 2016.
42. \$99,795, Swine Veterinary Internship Program, funded by Boehringer Ingelheim Vetmedica. June 1, 2016.
41. \$88,120, Swine Veterinary Internship Program, funded by Zoetis. June 1, 2016.
40. \$50,000, Zoetis PRRS Research Fellowship. Zoetis. March 14, 2016.
39. \$52,704, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. January 4, 2016.
38. \$2,500, Swine Veterinary Internship Program, funded by Merck Animal Health. December 21, 2015.
37. \$37,721, Swine Veterinary Internship Program, funded by Merck Animal Health. May 21, 2015.
36. \$40,000, Swine Veterinary Internship Program, funded by Boehringer Ingelheim Vetmedica. May 21, 2015.
35. \$109,042, Swine Veterinary Internship Program, funded by Boehringer Ingelheim Vetmedica. July 16, 2015.
34. \$59,141, Swine Veterinary Internship Program, funded by Zoetis. July 24, 2015.
33. \$2,500 Swine Veterinary Internship Program, funded by Boehringer Ingelheim Vetmedica. August 11, 2015.
32. \$9,617, Swine Veterinary Internship Program, funded by Boehringer Ingelheim Vetmedica. September 18, 2015.
31. \$112,384, Swine Veterinary Internship Program, funded by Zoetis. April 25, 2014.
30. \$52,374, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. January 5, 2015.

29. \$2,500, Swine Veterinary Internship Program, funded by Merck Animal Health. September 4, 2014.
28. \$5,980, Swine Veterinary Internship Program, funded by Merck Animal Health. August 15, 2014.
27. \$34,183, Swine Veterinary Internship Program, funded by Merck Animal Health. June 11, 2014.
26. \$119,402, Swine Veterinary Internship Program, funded by Boehringer Ingelheim Vetmedica. May 21, 2014.
25. \$7,781, Swine Veterinary Internship Program, funded by Harrisvaccines. April 28, 2014.
24. \$5,000, Swine Veterinary Internship Program, funded by Merck Animal Health. January 10, 2014.
23. \$51,084, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. December 30, 2013.
22. \$9,230, Swine Veterinary Internship Program, funded by Novartis Animal Health. August 1, 2013.
21. \$40,000, Swine Veterinary Internship Program, funded by Merck Animal Health. June 15, 2013.
20. \$73,944, Swine Veterinary Internship Program, funded by Zoetis. June 1, 2013.
19. \$159,190, Swine Veterinary Internship Program, funded by Boehringer Ingelheim Vetmedica. May 1, 2013.
18. \$52,461, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. December 30, 2012.
17. \$67,769, Swine Veterinary Internship Program, funded by Pfizer Animal Health. August 1, 2012.
16. \$215,095, Swine Veterinary Internship Program, funded by Boehringer Ingelheim Vetmedica. May 1, 2012.
15. \$51,836, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. December 30, 2011.
14. \$62,208, Support of summer student internships, funded by Pfizer Animal Health. December 22, 2010.

13. \$45,983, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. December 15, 2010.
12. \$27,000, Support of summer student internships, funded by Boehringer Ingelheim Vetmedica. May 1, 2010.
11. \$55,329, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. December 15, 2009.
10. \$7,500, Service agreement of summer student internships, funded by American Association of Swine Veterinarians. September 30, 2008.
9. \$3,500, Support of summer student internships, funded by Hanor Company Inc. July 17, 2008.
8. \$27,500, Support of summer student internships, funded by Boehringer Ingelheim Vetmedica. June 11, 2008.
7. \$4,100, Support of summer student internships, funded by Boehringer Ingelheim Vetmedica. March 12, 2008.
6. \$33,194, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. January 16, 2008.
5. \$2,790, Support of summer student internships, funded by Boehringer Ingelheim Vetmedica. December 31, 2007.
4. \$22,000, Support of summer student internships, funded by Boehringer Ingelheim Vetmedica. May 17, 2007.
3. \$5,000, Support of summer student internships, funded by Boehringer Ingelheim Vetmedica. March 31, 2007.
2. \$5,000, Support of summer student internships, funded by Boehringer Ingelheim Vetmedica. October 26, 2006.
1. \$71,340, Service agreement for Production Animal Disease Risk Assessment Program, funded by American Association of Swine Veterinarians. August 16, 2006.

## **Presentations**

### **Invited International Presentations**

48. **Holtkamp D.J.** How Much does the disease cost? Why it is time to get more serious about animal health. MSD Animal Health Symposium. February 12, 2020. Madrid, Spain

47. **Holtkamp D.J.** Biosecurity: how to prioritize where swine farms are most vulnerable. Innovacc Strategic Immersion Days. October 17, 2019. Zaragoza, Spain.
46. **Holtkamp D.J.** Why it is time to get more serious about biosecurity and animal health. MSD Animal Health. October 15 and 16, 2019. Zaragoza, Spain.
45. **Holtkamp D.J.** Economic impact of swine disease: Measuring losses caused by PRRSV and other pathogens. MSD Salud Animal. July 23, 2019. Guadalajara, Jalisco, Mexico.
44. **Holtkamp D.J.** Biosecurity: how to prioritize where swine farms are most vulnerable. Montreal Swine Summit. Montreal Swine Summit, Vetoquinol. June 11, 2019. Montreal, Canada.
43. **Holtkamp D.J.** Efficacy of ultraviolet C disinfection for inactivating Senecavirus A on contaminated surfaces commonly found on swine farms. Montreal Swine Summit, Vetoquinol. June 11, 2019. Montreal, Canada.
42. **Holtkamp D.J.** Evaluation of Virkon S to inactivate PEDV in swine feces on metal surfaces under freezing conditions. Montreal Swine Summit, Vetoquinol. June 11, 2019. Montreal, Canada.
41. **Holtkamp, D.J.** Biosecurity: how to prioritize where swine farms are most vulnerable. XXI Swine Days. UAB and AVPC. January 31, 2019. Barcelona, Spain.
40. **Holtkamp, D.J.** Monitoring and updating the value of productivity losses due to PRRSV. Boehringer Ingelheim Vetmedica Customer Event. January 30, 2019. Lleida, Spain.
39. **Holtkamp, D.J.** Monitoring and updating the value of productivity losses due to PRRSV. Boehringer Ingelheim Vetmedica Customer Event. January 29, 2019. Madrid, Spain.
38. **Holtkamp, D.J.** Modeling the economics of sow longevity. Banff Pork Seminar. January 9 and 10, 2019. Alberta, Canada.
37. **Holtkamp, D.J.** The economics of antibiotic reduction: a case study of reducing antimicrobial use by controlling PRRSV and other respiratory pathogens. MSD Swine University: Responsible use of Antibiotics Congress. November 8, 2018. Bangkok, Thailand.
36. **Holtkamp, D.J.** Economic efficiency of intervention measures. Keynote speaker. 10th European Symposium of Porcine Health Management. May 9, 2018. Barcelona, Spain.



35. **Holtkamp, D.J.** Evaluation of external biosecurity practices against PRRSV at the farm level. Zoetis Satellite Symposium. May 8, 2018. Barcelona, Spain.
34. **Holtkamp, D.J.** Economics of disease: Cost-benefit analysis of animal health interventions. All day workshop for MSD Animal Health Annual One Team meeting. May 17, 2018. Panama City, Panama.
33. **Holtkamp, D.J.** A case study of reducing antimicrobial use by controlling PRRSV and other respiratory pathogens. Swine University by MSD AH– AIF usage: present and future. October 3, 2017. Amsterdam, Netherlands.
32. **Holtkamp, D.J.** Monitoring and updating the value of productivity losses due to PRRSV. MSD Animal Health Swine Symposium. October 5, 2017. Madrid, Spain.
31. **Holtkamp, D.J.** Zero antibiotics project: Sanitary and productive improvement, JISAP. MSD Animal Health Swine Symposium. October 5, 2017. Madrid, Spain.
30. **Holtkamp, D.J.** Economic impact of PRDC. July 19, 2017. Queretaro, Mexico.
29. **Holtkamp, D.J.** Risk assessment and management. Tianzow Foods. September 24, 2016. Chongqing, China.
28. **Holtkamp, D.J.** Risk assessment and management. Muyuan Foodstuff Co Ltd. September 23, 2016. Nanyang, China.
27. **Holtkamp, D.J.** PRRS farm status classification, a comprehensive approach towards control and eradication. Muyuan Foodstuff Co Ltd. September 22, 2016. Nanyang, China.
26. **Holtkamp, D.J.** Financial impact of PRRSV in the US: Are we making progress? Muyuan Foodstuff Co Ltd. September 22, 2016. Nanyang, China.
25. **Holtkamp, D.J.** Financial impact of PRRSV in the US: Are we making progress? 1st NAU Sino-U.S. Swine Industry Summit. September 20, 2016. Nanjing, China.
24. **Holtkamp, D.J.** Risk assessment and management. Boehringer Ingelheim Vetmedica Technical Services; 1st NAU Sino-U.S. Swine Industry Summit. September 19, 2016. Nanjing, China.
23. **Holtkamp, D.J.** Financial benefits from improved porcine respiratory disease complex (PRDC) management. ECO Animal Health Pre-IPVS Customer Event. June 6, 2016. Maynooth, Co. Kildare, Ireland.
22. **Holtkamp, D.J.** Financial impact of PRRSV in the US: Progress made and work yet to be done. High Quality Pork Congress, MSD Animal Health. November 10, 2015. Chiang Mai, Thailand.

21. **Holtkamp D.J.** Economics of reproduction in the sow herd. High Quality Pork Congress, MSD Animal Health. November 10, 2015. Chiang Mai, Thailand.
20. **Holtkamp D.J.** It's a small world, that is unless you're a germ — advancing animal health biosecurity through premise hygiene. 2016 Canadian Veterinary Medical Association Convention. July 16, 2015. Calgary, Alberta, Canada.
19. **Holtkamp D.J.** The economics of PRRSV: Progress made and work yet to be done. 2015 International PRRS Congress. June 4, 2015. Ghent, Belgium.
18. **Holtkamp D.J.** Production Animal Disease Risk Assessment Program (PADRAP) possible applications for FMD control. Annual Meeting of the Korean Association of Swine Veterinarians. April 9, 2015. Daejeon, Korea.
17. **Holtkamp D.J.** Production Animal Disease Risk Assessment Program (PADRAP). Korean PRRS Symposium. April 13, 2015. Seoul, Korea.
16. **Holtkamp D.J.** PRRSV: Has the economic impact changed throughout the years? MSD Animal Health High Quality Pork Congress. October 10, 2014. Wroclaw, Poland.
15. **Holtkamp D.J.** Major risk factors for PRRS in Colombian farms. 2014 Porciamerica XVII National Congress; Columbian Association of Pork Producers. July 16, 2014. Cartagena, Columbia.
14. **Holtkamp D.J.** Economic impact of disease. 2014 Porciamerica XVII National Congress; Columbian Association of Pork Producers. July 16, 2014. Cartagena, Columbia.
13. **Holtkamp D.J.** Economic impacts of subclinical PCV2 and PCV2 vaccination strategies. MSD Animal Health Preconference Seminar, International Pig Veterinary Society Congress. June 8, 2014. Cancun, Mexico.
12. **Holtkamp D.J.** Basic concepts and tools available to help veterinarians substantiate the value of recommendations for animal health interventions (focus on wean -to-market). Association Francaise De Medecine Veterinaire Porcine (AFMVP). December 12, 2013. Paris, France.
11. **Holtkamp D.J.** Risk assessment to prevent disease in swine herds. XVI Congress of the Associação Brasileira de Veterinários Especialistas em Suínos (ABRAVES). November 6, 2013. Cuiaba, Matto Grasso, Brazil.
10. **Holtkamp D.J.** Principles of diagnostic sampling – the “bead game.” Pilot Training School in PRRS Diagnostics. September 25, 2012. Zagreb, Croatia.

9. **Holtkamp D.J.** Diagnostic sampling strategies and classification of breeding herds for PRRS virus. Pilot Training School in PRRS Diagnostics. September 24, 2012. Zagreb, Croatia.
8. **Holtkamp D.J.** Update on PRRS situation in the U.S., reasons for optimism in the battle against the PRRS virus? Dutch Swine Practitioner's Symposium. September 21, 2012. Baarlo, Netherlands.
7. **Holtkamp D.J.** Making the economic case for animal health recommendations – focus on wean-to-market. Dutch Swine Practitioner's Symposium. September 20, 2012. Baarlo, Netherlands.
6. **Holtkamp D.J.** Biosecurity and PADRAP training. USDA-FAS technical assistance program, Serbia Animal Health. September 17-19, 2012. Subotica, Serbia.
5. **Holtkamp D.J.** Basic concepts and tools available to help veterinarians substantiate the value of recommendations for animal health interventions with a focus on wean-to-market. Merial Industrial Partner Symposium, 22<sup>nd</sup> International Pig Veterinary Society Congress. June 12, 2012. Jeju, South Korea.
4. **Holtkamp D.J.** Swine herds classification regarding PRRS. EuroPRRS2011. October 14, 2011. Novi Sad, Serbia.
3. **Holtkamp D.J.** A comparison of PRRSV risks for Canadian and U.S. breeding herds. 20th International Pig Veterinary Society Congress. June 25, 2008. Durban, South Africa.
2. **Holtkamp D.J.** The economics of swine health and production in an era of high feed costs. Alpharma Animal Health Convention for Leaders in the Asian-Pacific Pork Industry. May 16, 2008. Kuala Lumpur, Malaysia.
1. **Holtkamp D.J.** Risk assessment of disease in swine production – Potential application to PCVAD. 2007 Ontario Association of Swine Veterinarians (Pre Big Bug Day) Meeting. April 24, 2007. Stratford, Ontario Canada.

### **Invited National Presentations**

59. **Holtkamp D.J.** Biosecurity: how to prioritize where swine farms are most vulnerable, 5th Annual Kansas City Royals Meeting sponsored by Merck Animal Health. July 17, 2019. Kauffman Stadium, Kansas City, MO
58. **Holtkamp D.J.** Tips for conducting investigations and preparing reports. Preconference seminar, Conducting effective outbreak investigations, 50th American Association of Swine Veterinarians Annual Meeting. March 9, 2019. Orlando, Florida.
57. **Holtkamp D.J.** Introduction to the SHIC-funded Rapid Response Program (RRP) for conducting epidemiological investigations of outbreaks. Preconference seminar,

Conducting effective outbreak investigations, 50th American Association of Swine Veterinarians Annual Meeting. March 9, 2019. Orlando, Florida.

56. **Holtkamp D.J.** Records and data management in the sow herd. Merck Swine University, ResPig and ReproPig Training. July 26, 2018. Philadelphia, Pennsylvania.

55. **Holtkamp D.J.** Swine economics 1010: Cost-benefit analysis of animal health interventions. Merck Swine University, ResPig and ReproPig Training. July 26, 2018. Philadelphia, Pennsylvania.

54. **Holtkamp D.J.** Records and data management in the sow herd. Merck Swine University, ResPig and ReproPig Training. July 24, 2017. Philadelphia, Pennsylvania.

53. **Holtkamp D.J.** Swine economics 101: Cost-benefit analysis of animal health interventions. Merck Swine University, ResPig and ReproPig Training. July 24, 2017. Philadelphia, Pennsylvania.

52. **Holtkamp D.J.** Monitoring and updating the value of productivity losses due to PRRSV. Zoetis, Framing the Future of PRRS. April 28, 2017. Napa, California.

51. **Holtkamp D.J.** Understanding how pathogens infect pig farms. 48<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. February 26, 2017. Denver, Colorado.

50. **Holtkamp D.J.** Review of PEDV disinfectant research. 47th American Association of Swine Veterinarians Annual Meeting. February 29, 2016. New Orleans, Louisiana.

49. **Holtkamp D.J.** Swine economics 101: Estimating the cost of disease and value of animal health interventions – concepts and practice. University of Pennsylvania ReproTraining. October 9, 2015. Philadelphia, Pennsylvania.

48. **Holtkamp D.J.** Key performance indicators (KPI) for sow herds. University of Pennsylvania ReproTraining. October 8, 2015. Philadelphia, Pennsylvania.

47. **Holtkamp D.J.** Records and data management in the sow herd. University of Pennsylvania ReproTraining. October 8, 2015. Philadelphia, Pennsylvania.

46. **Holtkamp D.J.** Evaluation of an accelerated hydrogen peroxide disinfectant to inactivate porcine epidemic diarrhea virus in swine feces on metal surfaces. 5th International Symposium Managing Animal Mortalities, Products, By-Products, & Associated Health Risk: Connecting Research, Regulations, & Responses. September 29, 2015. Lancaster, Pennsylvania.

45. **Holtkamp D.J.** Evaluation of time and temperature sufficient to inactivate porcine epidemic diarrhea virus in swine feces on metal surfaces. 5th International Symposium Managing Animal Mortalities, Products, By-Products, & Associated Health Risk:

Connecting Research, Regulations, & Responses. September 29, 2015. Lancaster, Pennsylvania.

44. **Holtkamp D.J.** Swine biosecurity practices. American Biological Safety Association (ABSA) 3rd International Biosafety & Biocontainment Symposium: Bio-risk Management in a One Health World. February 4, 2015. Baltimore Maryland.

43. **Holtkamp D.J.** PEDV in the US: Overview, history and lessons. American Biological Safety Association (ABSA) 3rd International Biosafety & Biocontainment Symposium: Bio-risk Management in a One Health World. February 4, 2015. Baltimore Maryland.

42. **Holtkamp D.J.** Practical approaches to evaluating & implementing on-farm animal disease risk, biosafety, biocontainment & biosecurity programs – swine. American Biological Safety Association (ABSA) 3rd International Biosafety & Biocontainment Symposium: Bio-risk Management in a One Health World, Pre-conference course. February 2, 2015. Baltimore Maryland.

41. **Holtkamp D.J.** Swine economics 101. University of Pennsylvania ReproTraining. October 15, 2014. Kennett Square, Pennsylvania.

40. **Holtkamp D.J.** Key performance indicators (KPI) for sow herds. University of Pennsylvania ReproTraining. October 15, 2014. Kennett Square, Pennsylvania.

39. **Holtkamp D.J.** Swine economics 101. University of Pennsylvania ReproTraining. October 15, 2014. Kennett Square, Pennsylvania.

38. **Holtkamp D.J.** Overview of the PEDV in the US: History, impact and implications for the industry. Four Star Veterinary Services Client Meeting. June 18, 2014. East Earl, Pennsylvania.

37. **Holtkamp D.J.** Risk assessment to prevent disease in swine herds. Biennial International Australian Pig Veterinarians (APV) Conference. June 5, 2014. Dallas, Texas.

36. **Holtkamp D.J.** Impact of litter size and birth weight on growing pig productivity and economics using an enterprise budgeting model to evaluate the profitability. Biennial International Australian Pig Veterinarians (APV) Conference. June 5, 2014. Dallas, Texas.

35. **Holtkamp D.J.** Overview of the PEDV in the US: History, impact and implications for the industry. Biennial International Australian Pig Veterinarians (APV) Conference. June 5, 2014. Dallas, Texas.

34. **Holtkamp D.J.** Basics of biosecurity. Merck Animal Health Summit. April 9, 2014. New York, New York.

33. **Holtkamp D.J.** Estimating the cost of respiratory disease in growing pigs and the value of animal health interventions. Merck Animal Health Summit. April 9, 2014. New York, New York.
32. **Holtkamp D.J.** Impact of litter size and birth weight on growing pig productivity and economics using an enterprise budgeting model to evaluate the profitability. Purina Swine Service Personnel VIP. March 12, 2014. Gray Summit, Missouri.
31. **Holtkamp D.J.** PRRS Outbreak Investigation Program. 2013 North American PRRS Symposium. December 7, 2013. Chicago, Illinois.
30. **Holtkamp D.J.** Understanding the importance of birth weight on grow-finish production and a systems approach for dealing with it. 2013 Allen D. Lemman Swine Conference, Pre-conference Session: Defining the Grow/Finish Productivity Optimum. September 15, 2013. St. Paul, Minnesota.
29. **Holtkamp D.J.** The impact of birth weight and litter size on survival and growth and a systems thinking approach to reducing low birth weight pigs. 2013 Arkansas Association for Food Protection Annual Educational Conference. September 11, 2013. Fayetteville, Arkansas.
28. **Holtkamp D.J.** Classification of swine breeding herds by PRRS virus status. 2013 Idexx Swine Health Summit. May 16, 2013. Portland, Maine.
27. **Holtkamp D.J.** The economics of PRRS. Zoetis Area Veterinary Meeting. May 10, 2013. Mankato, Minnesota.
26. **Holtkamp D.J.** PRRS virus control or elimination – How to assess which is right for individual breeding herds. 53rd George A. Young Swine Health and Management Conference. August 16, 2012. South Sioux City, Nebraska.
25. **Holtkamp D.J.** Regional PRRS control / elimination projects - do they have value? Field Applicable Knowledge for PRRSolutions Seminar. April 10, 2012. La Vista, Nebraska.
24. **Holtkamp D.J.** Evaluation of an objective risk scoring system for assessing the likelihood of virus introduction in PRRS virus-free sow herds in the U.S. University of Minnesota Swine Graduate Student Seminar. March 28, 2012. St. Paul, Minnesota.
23. **Holtkamp D.J.** Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. 2011 International PRRS Symposium. December 3, 2011. Chicago, Illinois.

22. **Holtkamp D.J.** Bio-economics: The impact of PRRS & PRRS control – What is the value of regional projects? PRRS ARC&E Seminar. December 2, 2011. Chicago, Illinois.
21. **Holtkamp D.J.** Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. Tyson Foods company meeting. November 1, 2011. Holdenville, Oklahoma.
20. **Holtkamp D.J.** Minimum testing standards in expected negative herds. 2011 Allen D. Leman Swine Conference. September 17, 2011. St. Paul, Minnesota.
19. **Holtkamp D.J.** PADRAP: Production Animal Disease Risk Assessment Program. American Association of Swine Veterinarians. March 8, 2011. Phoenix, Arizona.
18. **Holtkamp D.J.** Standard herd classification and related terminology for PRRS virus. Allen D. Leman Swine Conference, Pre-conference Workshop. September 20, 2010. St. Paul, Minnesota.
17. **Holtkamp D.J.** Standard herd classification system for describing the PRRS virus status of herds. Allen D. Leman Swine Conference, September 20, 2010. St. Paul, Minnesota.
16. **Holtkamp D.J.** Standard PRRS virus definitions and premise classification. The Area-Regional Control of PRRS: Moving from Ideas to Implementation (held in conjunction with the International PRRS Symposium). December 4, 2009. Chicago, Illinois.
15. **Holtkamp D.J.** Herd risk assessment (AASV's PADRAP): Progress in regional control of PRRS. Allen D. Leman Swine Conference. September 19, 2009. St. Paul, Minnesota.
14. **Holtkamp D.J.** Economic evaluation of swine health and disease interventions. Minnesota Pork Congress. January 21, 2009. Minneapolis, Minnesota.
13. **Holtkamp D.J.** Utilization of PADRAP to assess risk of exposure in area/regional control projects. Foundations of Area/Regional PRRSv Control Seminar. December 5, 2008. Chicago, Illinois.
12. **Holtkamp D.J.** PRRS risk assessment update. Indiana Swine Group Annual Meeting. December 2, 2008. Indianapolis, Indiana.
11. **Holtkamp D.J.** Managing the new economic reality. 2008 Allen D. Leman Swine Conference. September 23, 2008. St. Paul, Minnesota.
10. **Holtkamp D.J.** PRRS herd classification: Can we speak the same language? 2008 Allen D. Leman Swine Conference. September 21, 2008. St. Paul, Minnesota.

9. **Holtkamp D.J.** AASV's PRRS risk assessment for the breeding herd – Update and how it is being used. 2008 Annual Rensselaer Swine Services Client Appreciation Day. Aug 19, 2008. Rensselaer, Indiana.
8. **Holtkamp D.J.** Economics of disease and evaluating swine health interventions in an era of high feed costs. 49th George A. Young Swine Health and Management Conference. August 14, 2008. South Sioux City, Nebraska.
7. **Holtkamp D.J.** Modeling the economics of sow longevity. 13th Discover Conference on Food Animal Agriculture. September 10, 2007. Nashville, Indiana.
6. **Holtkamp D.J.** Measuring and benchmarking disease risk with the PRRS risk assessment for the breeding herd. 2007 Allen D. Leman Swine Conference. September 17, 2007. St. Paul Minnesota.
5. **Holtkamp D.J.** The PRRS risk assessment tool for the breeding herd – Practical applications. 48th George A. Young Swine Health and Management Conference. August 16, 2007. South Sioux City, Nebraska.
4. **Holtkamp D.J.** Application of disease risk assessment in veterinary medicine – PRRSV. Missouri Swine Veterinarian Peer Group Meeting. July 7, 2006. Columbia, Missouri.
3. **Holtkamp D.J.** Swine industry technologies and practices – Coming and going. Joint Meeting of the Extension Educators and Producer Education Committee. January 19, 2005. Nashville, Tennessee.
2. **Holtkamp D.J.** Using business intelligence software to view and report production projections for a large system. American Association of Swine Veterinarians. March 4, 2002. Kansas City, Kansas.
1. **Holtkamp D.J.** Principles and application of constraint theory and capacity utilization to pig farms. Workshop. Allen D. Leman Swine Conference. September 18, 1996. St. Paul, Minnesota.

#### **Invited Presentations in Iowa**

109. **Holtkamp, D.J.** Economic losses associated with Ileitis. Porcilis Lawsonia Technical Transfer. April 2, 2019. Webinar.
108. **Holtkamp, D.J.** Biosecurity: how to prioritize where swine farms are most vulnerable. Boehringer Ingelheim Swine Academy. October 12, 2019. Ames, Iowa.
107. **Holtkamp, D.J.** Efficacy of ultraviolet C (UVC) disinfection for inactivating Senecavirus A on contaminated surfaces commonly found on swine farms. Boehringer Ingelheim Swine Academy. October 12, 2019. Ames, Iowa.



106. **Holtkamp, D.J.** Evaluation of a staged loading procedure for the load out to reduce the transfer of contamination from livestock trailers to the barn. Boehringer Ingelheim Swine Academy. October 12, 2019. Ames, Iowa.
105. **Holtkamp, D.J.** Biosecurity Workshop Series For Iowa Pork Producers. Iowa Pork Industry Center. December 5, 2018. Manchester, Iowa.
104. **Holtkamp, D.J.** Biosecurity Workshop Series For Iowa Pork Producers. Iowa Pork Industry Center. December 6, 2018. Harlan, Iowa.
103. **Holtkamp, D.J.** Biosecurity Workshop Series For Iowa Pork Producers. Iowa Pork Industry Center. December 7, 2018. Orange City, Iowa.
102. **Holtkamp, D.J.** Biosecurity Workshop Series For Iowa Pork Producers. Iowa Pork Industry Center. December 7, 2018. Cherokee, Iowa.
101. **Holtkamp, D.J.** Biosecurity Workshop Series For Iowa Pork Producers. Iowa Pork Industry Center. December 10, 2018. Emmetsburg, Iowa.
100. **Holtkamp, D.J.** Biosecurity Workshop Series For Iowa Pork Producers. Iowa Pork Industry Center. December 11, 2018. Nashua, Iowa.
99. **Holtkamp, D.J.** Biosecurity Workshop Series For Iowa Pork Producers. Iowa Pork Industry Center. December 18, 2018. Oskaloosa, Iowa.
98. **Holtkamp, D.J.** Panel discussion: prioritizing biosecurity investments. 2018 ISU James D. McKean Swine Disease Conference. November 1, 2018. Ames, Iowa.
97. **Holtkamp, D.J.** Biosecurity best practices offered from the pork industry. Iowa Poultry Association 2018 Fall Festival. September 20, 2018. West Des Moines, Iowa.
96. **Holtkamp, D.J.** Cost-benefit analysis of animal health interventions. BISA (Boehringer Ingelheim Swine Academy) Gold. September 10, 2018. Ames, Iowa.
95. **Holtkamp, D.J.** Biosecurity assessment and management of disease risks. BISA (Boehringer Ingelheim Swine Academy) Gold. September 8, 2018. Ames, Iowa.
94. **Holtkamp, D.J.** Review of PEDV investigations, Rapid Response Program. PEDV Rapid Response Team meeting. April 4, 2018. Des Moines, Iowa.
93. **Holtkamp, D.J.** Cost-benefit analysis of animal health interventions. BISA (Boehringer Ingelheim Swine Academy) Gold. September 11, 2017. Ames, Iowa.
92. **Holtkamp, D.J.** Risk assessment and management. BISA (Boehringer Ingelheim Swine Academy) Gold. September 8, 2017. Ames, Iowa.

91. **Holtkamp, D.J.** Progress in biosecurity and risk assessment of swine diseases. Iowa Swine Day. June 29, 2017. Ames, Iowa.
90. **Holtkamp, D.J.** Rapid Response to Emerging Disease Program. Swine Disease Response Council Meeting. June 20, 2017. Des Moines, IA.
89. **Holtkamp, D.J.** Monitoring and updating the value of productivity losses due to PRRSV. Iowa State University Swine Seminar. April 7, 2017. Ames, Iowa.
88. **Holtkamp, D.J.** Faculty grant writing workshop. Industry / Corporate / Commodity / Pharmaceutical / Biotech. Iowa State University Faculty Workshop. March 24, 2017. Ames, Iowa.
87. **Holtkamp, D.J.** Monitoring and updating the value of productivity losses due to PRRSV. National Pork Board Swine Health Committee. January 19, 2017. Ames, Iowa.
86. **Holtkamp, D.J.** Systematic epidemiological investigations of cases of Senecavirus A in breeding herds. Senecavirus A (Seneca Valley Virus) Swine Health Information Center, Science in Practice Webinars. May 16, 2016. Ames, Iowa.
85. **Holtkamp D.J.** Rapid Response to Emerging Disease Program. 2016 ISU James D. McKean Swine Disease Conference. November 3, 2016. Ames, Iowa.
84. **Holtkamp D.J.** The cost of disease/complex infections; Part 1: Estimating the cost of disease and value of animal health interventions – concepts and practice, Part 2: Financial impact of PRRSV in the US. BISA (Boehringer Ingelheim Swine Academy) Gold. September 12, 2016. Ames, Iowa.
83. **Holtkamp D.J.** Risk assessment and management. BISA (Boehringer Ingelheim Swine Academy) Gold. September 9, 2016. Ames, Iowa.
82. **Holtkamp D.J.** Transport biosecurity and risk factor mitigation. PEDV Task Force Committee. May 18, 2016. Urbandale, Iowa.
81. **Holtkamp D.J.** Disinfecting for PEDV in freezing conditions (Practical advice based on ISU Research funded by your checkoff dollars). Buchanan County Area Regional Control Working Group Meeting. January 22, 2016. Quasqueton, Iowa
80. **Holtkamp D.J.** Update on PEDV inactivation on swine trailers. 2015 ISU James D. McKean Swine Disease Conference. November 5, 2015. Ames, Iowa.
79. **Holtkamp D.J.** Estimating the cost of disease and value of animal health interventions – concepts and practice. BISA (Boehringer Ingelheim Swine Academy) Gold. September 25, 2015. Ames, Iowa.

78. **Holtkamp D.J.** Financial impact of PRRSV in the US. BISA (Boehringer Ingelheim Swine Academy) Gold. September 25, 2015. Ames, Iowa.
77. **Holtkamp D.J.** What's new in research at Iowa State University: Effectiveness of alternative methods for inactivating PEDV in livestock trailers. Iowa Swine Day June 25, 2015. Ames, Iowa.
76. **Holtkamp D.J.** PRRS Outbreak Investigation Program. IPPA Swine Health Committee Meeting. June 17, 2015. West Des Moines, IA.
75. **Holtkamp D.J.** Economic impact of PEDV. Danish program for studying PEDV in US. May 31, 2015. Ames, Iowa.
74. **Holtkamp D.J.** Methods for inactivating PEDV in hog trailers. Farm Guard Products Web Conference. December 18, 2014. Ames, Iowa.
73. **Holtkamp D.J.** What we know and don't know about porcine reproductive and respiratory syndrome virus. Iowa State University Swine Disease Conference for Swine Practitioners. November 14, 2014. Ames, Iowa.
72. **Holtkamp D.J.** Overview of the PEDV in the US: History, impact and implications for the industry. Macquaire Securities Crop Tour. August 13, 2014. Ames, Iowa.
71. **Holtkamp D.J.** What PRRS research is telling us? Buchanan County PRRS Control Group Summer Meeting. July 29, 2014. Independence Iowa.
70. **Holtkamp D.J.** PEDV research update. Buchanan County PRRS Control Group Summer Meeting. July 29, 2014. Independence Iowa.
69. **Holtkamp D.J.** Making the most of PRRS outbreaks: Learning from our mistakes? Iowa Swine Day. June 26, 2014. Ames, Iowa.
68. **Holtkamp D.J.** Overview of the PEDV in the US: History, impact and implications for the industry. DeKalb Feeds Annual Swine Meeting. March 18, 2014. Cedar Rapids, Iowa.
67. **Holtkamp D.J.** Overview of the PEDV in the US: History, impact and implications for the industry. Mobley Group. December 17, 2013. Ames, Iowa.
66. **Holtkamp D.J.** Overview of the PEDV in the US: History, impact and implications for the industry. Novus International producer meeting. November 12, 2013. Naples, Florida.
65. **Holtkamp D.J.** Update on PRRS situation in the U.S., reasons for optimism in the battle against the PRRS virus? Cochran Fellowship Program improving livestock herd management techniques for swine producers in Viet Nam. August 16, 2013. Ames, Iowa.

64. **Holtkamp D.J.** Development of PRRS outbreak investigation and data management/analysis program for breeding herds in regional PRRSV projects in Iowa. Southeast Iowa Regional PRRS Project producer meeting. July 3, 2013. Kalona, Iowa.
63. **Holtkamp D.J.** Evaluation of an objective risk scoring system for assessing the likelihood of virus introduction in PRRS virus-free sow herds in the U.S. PRRS-CAP stakeholder meeting. June 28, 2013. Des Moines, Iowa.
62. **Holtkamp D.J.** The Economics of PRRS. BISA (Boehringer Ingelheim Swine Academy) Gold. June 21, 2013. Ames, Iowa.
61. **Holtkamp D.J.** Principles of diagnostic sampling – the “bead game”. BISA (Boehringer Ingelheim Swine Academy). April 12, 2013. Ames, Iowa.
60. **Holtkamp D.J.** Update on regional PRRS virus projects. Iowa Pork Producers Association (IPPA) Swine Health Committee meeting. February 19, 2013. Clive, Iowa.
59. **Holtkamp D.J.** What is being learned and done in the battle against the PRRS virus: Are we winning? Pork Fellows. November 5, 2012. Ames, Iowa.
58. **Holtkamp D.J.** What is the PRRS virus costing us? Iowa State University, Department of Animal Science, Animal Breeding and Genetics Seminar Series. September 4, 2012. Ames, Iowa.
57. **Holtkamp D.J.** Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. 2012 NAHMS Coordinator Training Webinar. August 29, 2012. Ames, Iowa.
56. **Holtkamp D.J.** What is being learned and done in the battle against the PRRS virus: Are we winning? Iowa Swine Day. June 28, 2012. Ames, Iowa.
55. **Holtkamp D.J.** Recent analyses with PADRAP. National Pork Board, PRRS CAP Conference on PRRS Regional Control and Elimination. June 5, 2012. Des Moines, IA.
54. **Holtkamp D.J.** Evaluating the economic value of regional PRRS control / elimination projects. Buchanan County area regional control project producer meeting. March 29, 2012. Independence, Iowa.
53. **Holtkamp D.J.**, Morrision R. Control and elimination of PRRS from swine herds and regions. Iowa Veterinary Medicine Association Winter Conference. February 9, 2012. Ames, Iowa.
52. **Holtkamp D.J.**, What does PRRS really cost the USA swine industry? Iowa State University Swine Disease Conference for Swine Practitioners. November 11, 2011. Ames, Iowa.

51. **Holtkamp D.J.** Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. Central Iowa regional PRRS virus elimination producer meeting. November 28, 2011. Marshalltown, Iowa.
50. **Holtkamp D.J.** Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. Murphy-Brown LLC company meeting and webinar. November 10, 2011. Ames, Iowa.
49. **Holtkamp D.J.** Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. Pork Fellows. October 3, 2011. Ames, Iowa.
48. **Holtkamp D.J.** Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. National Pork Board, Meeting of the Board. September 6, 2011. Des Moines, Iowa.
47. **Holtkamp D.J.** Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. Mobley Group. August 31, 2011. Ames, Iowa.
46. **Holtkamp D.J.**, Kliebenstein J.B. Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. National Pork Board Swine Health Committee Meeting. July 28, 2011. Ames, Iowa.
45. **Holtkamp D.J.** Regional PRRSv Control Project Iowa County, Iowa. BIVI ARC&E World Pork Expo Workshop. June 8, 2011. Des Moines, Iowa.
44. **Holtkamp D.J.** Regional PRRSv Control Project Iowa County, Iowa. PRRS CAP regional project review meeting. May 18, 2011. Des Moines, Iowa.
43. **Holtkamp D.J.** Regional PRRSv Control Project Iowa County, Iowa. Iowa Veterinary Medical Association Winter Conference. February 9, 2011. Ames, Iowa.
42. **Holtkamp D.J.**, Yoder T. Regional PRRSv Control Project Iowa County, Iowa, Iowa Pork Congress, Iowa Pork Producers Association Swine Health and Well-Being Committee Meeting. January 26, 2011. Des Moines, Iowa
41. **Holtkamp D.J.** AASV's Production Animal Disease Risk Assessment Program (PADRAP) - what it has done for swine production. Chinese Delegation, Ministry of Health. November 9, 2010. Ames, Iowa.
40. **Holtkamp D.J.** Development of a model for regional control and elimination for PRRS virus in Iowa. 18th Iowa State University Swine Disease Conference for Swine Practitioners. November 5, 2010. Ames, Iowa.

39. **Holtkamp D.J.** Regional PRRS virus elimination / control. Pork Fellows. October 25, 2010. Ames, Iowa.
38. **Holtkamp D.J.** Assessing biosecurity risks for PRRS Virus. 2010. SowBridge Program. October 6, 2010. Delivered via webinar.
37. **Holtkamp D.J.** Regional PRRS virus elimination / control. Mobley Group. September 8, 2010. Ames, Iowa.
36. **Holtkamp D.J.** AASV's Production Animal Disease Risk Assessment Program (PADRAP). US Grains Council; Taiwan Pork Producers Education Symposium. June 15, 2010. Ames, Iowa.
35. **Holtkamp D.J.** Applications of PADRAP for area PRRS projects. PRRS Area Regional Control & Elimination (ARC&E) Working Group Workshop. June 10, 2010. Des Moines, Iowa.
34. **Holtkamp D.J.** Standard herd classification and related terminology for PRRS virus. PRRS CAP-NPB PRRS Initiative Joint Conference. June 8, 2010. Des Moines, Iowa.
33. **Holtkamp D.J.** Using the AASV PRRS risk assessment and biosecurity to control and eliminate the PRRS virus. Iowa Veterinary Medicine Association Winter Conference. February 10, 2010. Ames, Iowa.
32. **Holtkamp D.J.** AASV's Production Animal Disease Risk Assessment Program (PADRAP) - what it has done for swine production. Iowa viral hemorrhagic septicemia (VHSV) Aquatic Biosecurity Training and Implementation Workshop. November 6, 2009. Ames, Iowa.
31. **Holtkamp D.J.** Demonstration of a budgeting model for evaluating sow herd inventory reductions to increase wean age. In-service training for extension swine specialists. October 16, 2009. Ames, Iowa.
30. **Holtkamp D.J.** Understanding biosecurity risks: AASV's PADRAP. Nigerian Swine Team. September 24, 2009. Ames, Iowa.
29. **Holtkamp D.J.** What's happening on the PRRSv front. Mobley Group. September 2, 2009. Ames, Iowa.
28. **Holtkamp D.J.** Understanding biosecurity risks: AASV's PADRAP. US Grains Council; Taiwan Pork Producers. June 8, 2009. Ames, Iowa.
27. **Holtkamp D.J.** Economic impact of improved reproductive efficiencies. Sow Seminar, World Pork Expo. June 4, 2009. Des Moines, Iowa.

26. **Holtkamp D.J.** Introduction to the AASV PRRS risk assessment for the growing pig herd. BIVI Liaison Meeting. June 3, 2009. Des Moines, Iowa.
25. **Holtkamp D.J.** Qualifying risk factors for PRRS virus introduction into swine herds through the use of the PRRS risk assessment. PRRS CAP–NPB PRRS Initiative Joint Conference. June 2, 2009. Des Moines, Iowa.
24. **Holtkamp D.J.** Economic evaluation of swine health and disease interventions. Iowa Pork Regional Conferences. February 24, 2009. Dows, Iowa.
23. **Holtkamp D.J.** Economic evaluation of swine health and disease interventions. Iowa Pork Regional Conferences. February 23, 2009. Oelwein, Iowa.
22. **Holtkamp D.J.** Economic evaluation of swine health and disease interventions. Iowa Pork Regional Conferences. February 18, 2009. Sioux Center, Iowa.
21. **Holtkamp D.J.** Economic evaluation of swine health and disease interventions. Iowa Pork Regional Conferences. February 17, 2009. Carroll, Iowa.
20. **Holtkamp D.J.** Economic evaluation of swine health and disease interventions. Iowa Pork Regional Conferences. February 16, 2009. Ainsworth, Iowa.
19. **Holtkamp D.J.** Economic evaluation of swine health and disease interventions. Minnesota Pork Congress. January 21, 2009. Minneapolis, Minnesota.
18. **Holtkamp D.J.** Economic and risk evaluations for clinical decision-making. 16th Annual Iowa State University Swine Disease Conference for Swine Practitioners. November 7, 2008. Ames, Iowa.
17. **Holtkamp D.J.** Update on the AASV PRRS risk assessment for the breeding herd – mining the risk assessments for knowledge. Boehringer Ingelheim Vetmedica Veterinary Liaison Meeting. November 4, 2008; Ames, Iowa
16. **Holtkamp D.J.** Risk assessment for the breeding herd - update and implementation. A Taste of Extension. October 22, 2008. Ames, Iowa.
15. **Holtkamp D.J.** Economics of disease and evaluating swine health interventions in an era of high feed costs. Mobley Group. September 17, 2008. Ames, Iowa.
14. **Holtkamp D.J.** Update on the AASV PRRS risk assessment for the breeding herd – Mining the risk assessments for knowledge. Boehringer Ingelheim Vetmedica Swine Academy. September 9, 2008. Ames, Iowa.
13. **Holtkamp D.J.** PRRS risk assessment. Pacific Ocean Breeding Group (Japanese breeding stock provider). June 9, 2008. Ames, Iowa.

12. **Holtkamp D.J.** Costs of swine disease – Impacts of feed efficiency. 15th Annual Iowa State University Swine Disease Conference for Swine Practitioners. November 9, 2007. Ames, Iowa.
11. **Holtkamp D.J.** Progress on PRRS risk assessment. Boehringer Ingelheim Vetmedica Veterinary Liaison Meeting. November 8, 2006. Ames, Iowa.
10. **Holtkamp D.J.** Overview of PRRS risk assessment for the breeding herd. PRRS CAP education, outreach and extension meeting. August 30, 2007. Des Moines, Iowa.
9. **Holtkamp D.J.** Update on the College of Veterinary Medicine. Sleezer Fertility Center Customer Appreciation Day. August 21, 2007. Storm Lake, Iowa.
8. **Holtkamp D.J.** Using diagnostic tests – Basic principles. US Grains Council, Chinese Swine Veterinarians. August 4, 2006. Ames, Iowa.
7. **Holtkamp D.J.** Data management and analysis with Microsoft Excel. Advanced Techniques for Swine Veterinarians, American Association of Swine Veterinarian's Summer Wetlab. June 6, 2007. Ames, Iowa.
6. **Holtkamp D.J.** Risk assessment of disease in swine production – Potential application to PCVAD. Iowa Pork Congress. January 24, 2007. Des Moines, Iowa.
5. **Holtkamp D.J.** PRRS risk assessment tool – Information mining. 14th Annual Iowa State University Swine Disease Conference for Swine Practitioners. November 8, 2006. Ames, Iowa.
4. **Holtkamp D.J.** Disease risk assessment in veterinary medicine – PRRSV. Mobley Group. September 20, 2006. Ames, Iowa.
3. **Holtkamp D.J.** PRRS risk assessment. Pork Academy. June 7, 2006. Des Moines, Iowa.
2. **Holtkamp D.J.** Assessing the value of improved breeding herd productivity in production systems. Prince Agriproducts Swine Reproduction Symposium. August 28, 2001. Des Moines, Iowa.
1. **Holtkamp D.J.** Costs associated with finishing variability. 5th Annual Iowa State University Swine Disease Conference for Swine Practitioners. November 11, 1999. Ames, Iowa.

### **Other Presentations**

13. **Holtkamp D.J.** PRRS Outbreak Investigation Pilot Program: Lessons learned. 49<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. March 4, 2018. San Diego, California.



12. **Holtkamp D.J.** Rapid Response to Emerging Disease Program update. 49<sup>th</sup> American Association of Swine Veterinarians Annual Meeting, Committee on Transboundary and Emerging Disease. March 3, 2018. San Diego, California.

11. **Holtkamp D.J.** Monitoring and updating the value of productivity losses due to PRRSV. AASV PRRS Task Force. February 25, 2017. Denver, Colorado.

10. **Holtkamp D.J.** Estimation of the economic value of the productivity differences following a change in PCV2 and Mycoplasma hyopneumoniae vaccines and PRRSV control efforts using historical production data. 47<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. February 28, 2016. New Orleans, Louisiana.

9. **Holtkamp D.J.** Evaluation of the impact of birth litter size on birth weight and subsequent birth-to-market performance. 44<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. March 13, 2013. San Diego, CA.

8. **Holtkamp D.J.** Capital budgeting analysis of PRRS virus elimination from a breeding herd. 22<sup>nd</sup> International Pig Veterinary Society Congress. June 12, 2012. Jeju, South Korea.

7. **Holtkamp D.J.** Economic analysis of PRRS virus elimination from a herd. 43<sup>rd</sup> American Association of Swine Veterinarians Annual Meeting. March 11, 2012. Denver, Colorado.

6. **Holtkamp D.J.** Update on the AASV Production Animal Disease Risk Assessment Program (PADRAP) and the new web-based application. 21<sup>st</sup> International Pig Veterinary Society Congress. July 21, 2010. Vancouver, Canada.

5. **Holtkamp D.J.** Quantifying risk and evaluating the relationship between external biosecurity factors and PRRS-negative herd survival. American Association of Swine Veterinarians. March 7, 2010. Omaha, Nebraska.

4. **Holtkamp D.J.** Update on the AASV Production Animal Disease Risk Assessment Program (PADRAP) and the new web-based application. 20<sup>th</sup> International Pig Veterinary Society Congress. June 24, 2008. Durban, South Africa.

3. **Holtkamp D.J.** The economic cost of major health challenges in large U.S. swine production systems. 38<sup>th</sup> American Association of Swine Veterinarians Annual Meeting March 4, 2007; Orlando, Florida"

2. **Holtkamp D.J.** Economic evaluation of Ceftiofur use in piglets from birth to weaning and birth to market. 16<sup>th</sup> International Pig Veterinary Society Congress. September 16, 2000. Melbourne, Australia.

1. **Holtkamp D.J.** Productivity gains related to segregated early weaning in pigs. American Association of Swine Practitioners. March 5, 1995. Omaha, Nebraska.

## Media Interviews

33. **Holtkamp D.J.** Rapid Response Corps poised to investigate transboundary swine disease outbreaks. Interview for Pig Health Today. Posted June 1, 2018. <https://pighealthtoday.com/rapid-response-corps-poised-to-investigate-transboundary-swine-disease-outbreaks/> (Accessed June 19, 2018). Also published in print version. June 4, 2018.

32. **Holtkamp D.J.** Research focused on respiratory pathogen load. Interview for Feedstuffs. Posted May 24, 2016. <http://www.feedstuffs.com/nutrition-health/research-focused-respiratory-pathogen-load> (Accessed June 19, 2018)

31. **Holtkamp D.J.** Semi-annual report indicates progress combatting PRRSV. Interview for Pig Health Today. Posted May 3, 2018. <https://pighealthtoday.com/semi-annual-report-indicates-progress-combatting-prrsv/> (Accessed June 19, 2018)

30. **Holtkamp D.J.** Rapid response project aims to limit disease risk to US swine herds. Interview for Pig Health Today. Posted January 1, 2018. <https://pighealthtoday.com/rapid-response-project-aims-to-limit-disease-risk-to-us-swine-herds/> (Accessed June 19, 2018)

29. **Holtkamp D.J.** Pork Producers gain ground against PRRS with reduced production losses. Posted December 13, 2017. <https://pighealthtoday.com/pork-producers-gain-ground-against-prrs-with-reduced-production-losses/> (Accessed Jan. 15, 2018)

28. **Holtkamp D.J.** Annual PRRS costs fall \$83.3 million. Interview for Pork Checkoff Report. Posted June 1, 2017. <https://www.pork.org/blog/annual-prrs-costs-fall-83-3-million-productivity-gains-blunt-impact-prrs-u-s-herd/> (Accessed Jan 15, 2018)

27. **Holtkamp D.J.** Solve biosecurity overload by focusing on the basics. Interview for Pig Health Today. Posted March 15, 2017. <https://pighealthtoday.com/solve-biosecurity-overload-by-focusing-on-the-basics/> (Accessed Jan. 15, 2018)

26. **Holtkamp D.J.** ISU veterinarian updating study on pig disease. Interview for Iowa State Daily. Posted February 28, 2016. [http://www.iowastatedaily.com/news/academics/article\\_389d7aca-ddde-11e5-8901-1fce5ce90bba.html](http://www.iowastatedaily.com/news/academics/article_389d7aca-ddde-11e5-8901-1fce5ce90bba.html) (Accessed Mar. 4, 2016)

25. **Holtkamp D.J.** 2016. Iowa State veterinary researcher will update study on economic impact of costly disease in pigs. Interview for Iowa State University News Service. Posted February 11, 2016. <http://news.iastate.edu/news/2016/02/11/prrsupdate> (Accessed Mar. 4, 2016)

24. **Holtkamp D.J.** Don't become fatigued to PEDV. Interview for National Hog Farmer. Posted January 21, 2016. <http://nationalhogfarmer.com/animal-well-being/don-t-become-fatigued-pedv> (Accessed Mar. 4, 2016)

23. **Holtkamp, D.J.**, Cima, G. Modified pigs may be safe from deadly disease: Study indicates genetic deletion protects against PRRS. Posted January 13, 2016. para. 11. <https://www.avma.org/News/JAVMANews/Pages/160201d.aspx>. (Accessed Feb. 5, 2016)

22. **Holtkamp D.J.** PRRS more devastating in US than PEDv at its worst. Interview for ThePigSite.com. Posted January 28, 2016. <http://www.thepigsite.com/swinenews/40983/prrs-more-devastating-in-us-than-pedv-at-its-worst/> (Accessed Mar. 4, 2016)

21. **Holtkamp D.J.** PRRS - Economics and role diagnostics play in controlling the virus. Interview for The5mVideos. Posted December 16, 2015. <https://www.youtube.com/watch?v=sma95vc0KnM> (Accessed Feb. 5, 2016)

20. **Holtkamp D.J.** Don't let costly co-infections steal your profit margins. PorkNetwork Posted November 19, 2015. <http://www.porknetwork.com/video/porktv/dont-let-costly-co-infections-steal-your-profit-margins>

19. **Holtkamp D.J.** Feeding for 30: Derald Holtkamp on litter size and birthweight. Interview for FeedingFor30. Posted September 3, 2014. <https://www.youtube.com/watch?v=DPnP75qbJqw> (Accessed Feb. 5, 2016)

18. **Holtkamp D.J.** Researchers seek ways to reduce porcine virus transmission; Time and temperature combinations identified to inactivate PEDV on trailers. Food Quality and Safety magazine, The eUpdate, Posted February 11, 2014. [http://www.foodquality.com/details/article/5815531/Researchers\\_Seek\\_Ways\\_to\\_Reduce\\_Porcine\\_Virus\\_Transmission.html](http://www.foodquality.com/details/article/5815531/Researchers_Seek_Ways_to_Reduce_Porcine_Virus_Transmission.html) (posted 2/11/2014)

17. **Holtkamp D.J.** Practical time and temperature options to curb PEDV. Pork Checkoff PEDV Newsletter. Posted February 2014. <http://www.pork.org/News/4511/PracticalTimeandTemperatureOptionstoCurbPEDV.aspx> (Accessed March 6, 2014)

16. **Holtkamp D.J.** ISU identifies practical time and temperature options to curb PEDV. Iowa Pork Producers News for Members. Posted January 31, 2014, Volume 10, Issue 3.

15. **Holtkamp D.J.** Researcher optimistic about on battle against PRRS. PorkNetwork Posted July 3, 2012. <http://www.porknetwork.com/pork-news/Researcher-optimistic-on-battle-against-PRRS-161226275.html>

14. **Holtkamp D.J.** Iowa State scientist positive about PRRS elimination. PigProgress. Posted July 9, 2012. <http://www.pigprogress.net/Health-Diseases/Research/2012/7/Iowa-State-scientist-positive-about-PRRS-elimination-PP009024W/>
13. **Holtkamp D.J.** Financial impact of eliminating PRRS. Interview for AgWired.com. Posted December 8, 2011. <http://agwired.com/2011/12/08/financial-impact-of-eliminating-prrs/> (Accessed Feb. 5, 2016)
12. **Holtkamp D.J.** What is the value of regional projects? Interview for AgWired.com. Posted December 2, 2011.
11. **Holtkamp D.J.** New PRRS study: Impact remains high. National Hog Farmer. Minneapolis, Minnesota. Posted September 15, 2011.
10. **Holtkamp D.J.** Pork Checkoff study: PRRS cost industry \$641 million annually. Press release. National Pork Board. Posted August 17, 2011.
9. **Holtkamp D.J.** PRRS virus. Impact of PRRS virus. Farm Talk with Mick Kjar, CARE 890 AM. Posted August 22, 2011.
8. **Holtkamp D.J.** PRRS lawsuit could affect practices. JAVMA News. Posted April 13, 2011. [http://www.avma.org/onlnews/javma/may11/110501k\\_pf.asp](http://www.avma.org/onlnews/javma/may11/110501k_pf.asp).
7. **Holtkamp D.J.** Biosecurity, vaccination, tracking keys to PRRS control. Interview for AgWired.com. Posted June 27, 2010. <http://agwired.com/2011/12/08/financial-impact-of-eliminating-prrs/> (Accessed Feb. 5, 2016)
6. **Holtkamp D.J.** Applications of PADRAP for area PRRS projects. Interview for AgWired.com. Posted June 10, 2010. <http://agwired.com/2010/06> (Accessed October 19, 2010).
5. **Holtkamp D.J.** Standardized PRRS definitions contribute to efficiency across research platforms. Interview for SwineCast.com. Posted December 17, 2009. <http://www.swinecast.com/swinecast-0489-standardized-prrs-definitions-contribute-to-efficiency-across-research-platforms> (Accessed March 3, 2010).
4. **Holtkamp D.J.** PADRAP now online. Interview for AgWired.com. Posted December 10, 2008. <http://agwired.com/2008/12/10/padrapp-now-online/> (Accessed Dec. 28, 2008).
3. **Holtkamp D.J.** PADRAP setting benchmarks for disease risk assessments. Interview for SwineCast.com. Posted December 12, 2008. <http://www.swinecast.com/swinecast-0363-for-december-12-2008> (Accessed December 28, 2008).
2. **Holtkamp D.J.** Hog producers should think differently about raising hogs. Television interview for Market Journal. Posted August 15, 2008. <http://marketjournal.unl.edu/search/0808153.shtml> (Accessed Nov. 18, 2008).

1. **Holtkamp D.J.** Protect your hogs from PRRS. Television interview for Market Journal. Posted October 12, 2007. <http://marketjournal.unl.edu/search/0710124.shtml> (Accessed Nov 18, 2008).

## Posters

*\*Denotes student for which I served as major professor, graduate committee member or mentored during study*

37. Moura C, **Holtkamp D**, Linhares D. 2019. Production and economic benefit of a full PRRS MLV dose compared to a partial dose vaccination program on nursery pigs. 2019. Allen D. Leman Swine Conference. St. Paul, Minnesota. Poster 56.

36. Mehling S, Henao-Diaz A, Maurer J, Kluber E, Stika R\*, Rademacher C, Zimmerman J, Giménez-Lirola L, Wang C, Ramirez A, Karriker L, **Holtkamp D**, Goodell C, Main R, Linhares D, Baum D. 2019. Wean-to-Finish Pig Death Patterns Associated with Stocking Density and Profitability Differences. Pig Welfare Symposium, Nov 13 – 15, Minneapolis, MN. Poster 7.

35. Mehling S.C., Maurer J., Kluber E., Stika R.\*, Rademacher C., Zimmerman J., Giménez-Lirola L., Wang C., **Holtkamp D.**, Main R., Baum D. 2019. Detection of pig death patterns during the wean-to-finish period, differences in profitability, and association to management practices and presence of endemic pathogens. 2019. American Association of Swine Veterinarians Annual Meeting. Lake Buena Vista, Florida. Poster 21.

34. Stika R., **Holtkamp D.J.**, Goodell C., Lowe E., Kluber E., Baum D., Maurer J., Zhang M., Whang C., Zimmerman J., Gimenez-Lirola L., Rademacher C., Playter S., Schmalting E. Measuring the respiratory pathogen burden in growing pigs to estimate the impact of disease. 2018. Allen D. Leman Swine Conference. St. Paul, Minnesota.

33. Mehling, S., Maurer, J., Kluber, E., Stika, R.\*, Rademacher, C., Zimmerman, J., Gimenez-Lirola, L., Wang, C., **Holtkamp, D.**, Main, R., Goodell, C., Baum, D. Dec 2018. Mortality patterns in a wean-to-finish portion of a commercial swine production system. Proc 99th Annual Conference of Research Workers in Animal Diseases. Chicago, Illinois. Poster#201.

32. Hennes K.\*, Dion K., **Holtkamp D.**, Swalla R. The cost of porcine reproductive and respiratory syndrome virus and porcine epidemic diarrhea virus in finishing pigs. *In:* Proc. 48<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. San Diego, California. March 4, 2018. p. 286.

31. Stika R.\*, **Holtkamp D.J.**, Goodell C., Lowe E., Kluber E., Baum D., Maurer J., Bi R. Wang C., Zimmerman J., Gimenez-Lirola L., Rademacher C., Playter S., Schmalting E. Assessment of the association between respiratory pathogen burden and the productivity of

growing pigs. *In: Proc. 48<sup>th</sup> American Association of Swine Veterinarians Annual Meeting*. San Diego, California. March 4, 2018. p. 293.

30. Almeida M.N., Zimmerman J.J, **Holtkamp D.J.**, Rademacher C., Rotto H., Schneider P., Linhares D.C.L. Comparative evaluation of family oral fluids and piglet sera to detect PRRSV RNA by PCR. *In: Proc. 48<sup>th</sup> American Association of Swine Veterinarians Annual Meeting*. San Diego, California. March 4, 2018. pp. 339.

29. Neat R.\*, Clavijo M., Mowrer C., Linhares D., **Holtkamp D.J.** Rapid Response to Emerging Swine Diseases Program. Sustainability Symposium. Ames, Iowa. April 3, 2017. Ames, Iowa.

28. **Holtkamp D.J.**, Patterson J. A novel approach for using P.G. 600<sup>®</sup>: Impact on gilt performance and sow longevity. *In: Proc. 48<sup>th</sup> American Association of Swine Veterinarians Annual Meeting*. February 26, 2017. Denver, Colorado. pp. 304-305.

27. **Holtkamp D.**, Gerardy K.\*, Mowrer C., Linhares D., Rademacher C., Canning P., Canon A., Karriker L. Epidemiological investigation of cases of Senecavirus A in United States swine breeding herds. *In: Proc. 24<sup>th</sup> International Pig Veterinary Society Congress*. Dublin, Ireland. June 8, 2016. p. IPVS2016-890.

26. **Holtkamp D.**, Thacker B., Creel J. Economic value of productivity differences following a change in PCV2 and Mycoplasma hyopneumoniae vaccines using historical production data. *In: Proc. 24<sup>th</sup> International Pig Veterinary Society Congress*. Dublin, Ireland. June 8, 2016. p. IPVS2016-888.

25. Rademacher C., Linhares D., Pineyro P., Canning P., **Holtkamp D.**, Karriker L. Shedding patterns detected by PCR in sows and piglets of Senecavirus A from an infected U.S. swine breeding herd. *In: Proc. 24<sup>th</sup> International Pig Veterinary Society Congress*. Dublin, Ireland. June 8, 2016. p. IPVS2016-1156.

24. Lauterbach N., Canon A., Bates J., Skoland K, Ruston C., Ellingson J, Thomas P.\*, Hershberger N., Te Grotenhuis T., Hayman K., Breuer M., Buckley A., Koethe A.\*, Gerardy K.\*, **Holtkamp D.**, Karriker L. See one, do one, teach one: increasing swine disease response and diagnostic capacity by using a pyramid based training technique to get boots on the ground. *In: Proc. 47<sup>th</sup> American Association of Swine Veterinarians Annual Meeting*. New Orleans, Louisiana. February 26, 2016. pp. 268.

23. Gerardy K.\*, Canon A., Karriker L., **Holtkamp D.** Outbreak Investigation Program: A systematic approach to PRRS outbreak investigations. 2016 CVM Faculty Research Symposium. January 6, 2016. Ames, Iowa.

22. Gerardy K.\*, Canon A., Karriker L., **Holtkamp D.** Outbreak Investigation Program: A systematic approach to PRRS outbreak investigations. 2015 North American PRRS Symposium. December 6, 2015. Chicago, Illinois.

21. Thacker B., Blomme R., **Holtkamp D.**, Creel J. 2014. Field comparison of PCV2 vaccines: A retrospective production data analysis. *In: Proc. 23<sup>rd</sup> International Pig Veterinary Society Congress. Cancun, Mexico. June 11, 2014. p. P.369.*
20. **Holtkamp D.J.**, Radke S.\*, Mowrer C., Baker R.B., McKean J., Main R., Polson D. Cano J.P. 2014. Development of porcine reproductive and respiratory syndrome outbreak investigations program. *In: Proc. 23<sup>rd</sup> International Pig Veterinary Society Congress. June 11, 2014. Cancun, Mexico. p. P.644.*
19. Radke S.\*, **Holtkamp D.J.**, Baker R.B., McKean J., Main R., Polson D., Cano J.P. Development of porcine reproductive and respiratory syndrome outbreak investigations program for breeding herds in regional projects in Iowa. *In: Proc. 45<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. March 2, 2014. Dallas, Texas. p. 357.*
18. Sebo, C.\*, Harris J.T., **Holtkamp D.J.**, Harris H. 2014. Case Study: Monitoring mortality rates for the evaluation of alphavirus RNA particle vaccines. *In: Proc. 45<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. March 2, 2014. Dallas, Texas. p. 363*
17. Sievers C.\*, Wagner M., **Holtkamp D.J.** 2013. Effect of porcine reproductive and respiratory viral load when inoculating serologically positive sows. *In: Proc. 44<sup>th</sup> American Association of Swine Veterinarians Annual Meeting. March 3, 2013. San Diego, California. pp. 349-350.*
16. **Holtkamp D.J.**, Kliebenstein J.B., Neumann E.J., Zimmerman J.J., Rotto H., Yoder T.K., Wang C., Yeske P., Mowrer C. Haley C. 2013. Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on United States pork producers. Iowa State University College of Veterinary Medicine Faculty Research Day. January 8, 2013. Ames, Iowa.
15. DeBuse N., Rutten-Ramos L, Rao S., **Holtkamp D.J.** Summary of the PRRS control measures utilized by breeding herds in North America participating in the PADRAP database (2006-2011). 2012 International PRRS Symposium. November 29, 2012. Kansas City, Missouri.
14. **Holtkamp D.J.**, Lin H.\*, Wang C., O'Connor A.M. 2012. Identifying questions in the American Association of Swine Veterinarian's PRRS risk assessment survey that are important for retrospectively classifying swine herds according to whether they reported clinical PRRS outbreaks in the previous 3 years. *In: Proc. 22<sup>nd</sup> International Pig Veterinary Society Congress. June. Jeju, South Korea. P. 243*
13. Robb C.\*, **Holtkamp D.J.**, Lasley P. 2012. Estimating the role of geography as a risk factor for porcine reproductive and respiratory syndrome virus infection in the growing pig. *In: Proc. 43<sup>rd</sup> American Association of Swine Veterinarians Annual Meeting, Denver, Colorado. March 11, 2012. Denver, Colorado. p. 343.*

12. **Holtkamp D.J.**, Kliebenstein J., Zimmerman J., Neumann E., Rotto H., Yoder T., Wang C., Yeske P., Mowrer C., and Haley C. 2011. Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on U.S. pork producers. 2011 International PRRS Symposium. December 3, 2011. Chicago, Illinois.

11. **Holtkamp D.J.**, Schulz L., Schroeder T., Tonsor Rowland R.R. 2011. Bio-economics: G., Kliebenstein J., Morrison R., The impact of PRRS & PRRS control – What is the value of regional projects? PRRS ARC&E seminar. December 2, 2011. Chicago, Illinois.

10. Abbott J. \*, Choi Y.I., **Holtkamp D.J.**, Mondaca E., Polson D.D., Stricker A., Yoon K.J. 2011. Comparison of alternative sample collection methods for PRRS testing. *In: Proc. 42<sup>nd</sup> American Association of Swine Veterinarians Annual Meeting.* March 6, 2011. Phoenix, Arizona. pp. 287-288.

9. **Holtkamp D.J.**, Melody J. 2010. Use of the AASV Production Animal Disease Risk Assessment Program to benchmark mortality disposal practices in United States swine production. *In: Proc. 21st International Pig Veterinary Society Congress.* July 18, 2010. Vancouver, Canada. P.636.

8. McDowell E.J. \*, **Holtkamp D.J.**, Daniels C.S. 2010. Heart rate variability and vocalization as a measure of stress response in pigs to needle-free injections versus needle and syringe. *In: Proc. 41<sup>st</sup> American Association of Swine Veterinarians Annual Meeting.* March 9, 2010. Omaha, Nebraska. pp. 319-320.

7. Sadler P.M. \*, Gillespie T.G., Galina L., **Holtkamp D.J.** 2010. On farm collection of virtual images for improving diagnostic accuracy and developing more precise intervention programs. *In: Proc. 41<sup>st</sup> American Association of Swine Veterinarians Annual Meeting.* March 9, 2010. Omaha, Nebraska. p. 335

6. Dion K.R. \*, Dau D., Delks A.M., Hammer M., **Holtkamp D.J.** 2009. Feed medication protocol comparison in a PRRSv unstable nursery flow. *In: Proc. 40th American Association of Swine Veterinarians Annual Meeting.* March 8, 2009. Dallas, Texas. pp. 315-316.

5. **Holtkamp D.J.**, Ackerman M.A. 2008. Impact of a Matrix®/P.G. 600® estrus synchronization program on sow longevity. *In: Proc. 39th American Association of Swine Veterinarians Annual Meeting.* March 9, 2008. San Diego, California. pp. 353-356.

4. Greving J. \*, **Holtkamp D.J.** 2008. Contributing factors and their effects on growth rate and mortality in a herd clinically affected by porcine circovirus associated disease (PCVAD). *In: Proc. 39th American Association of Swine Veterinarians Annual Meeting.* March 9, 2008. San Diego, California. pp. 313-314.



3. Waddell J.\*, Polson D.D., **Holtkamp D.J.** Assessment of changes in breeding herd PRRS site risk scores in a large production system over a three-year period. *In: Proc. 20th International Pig Veterinary Society Congress. June 25, 2008. Durban, South Africa. P. 391.*

2. You L., O'Connor A., **Holtkamp D.J.** 2008. Application of random forest to identify swine breeding herd site and population risk factors. Iowa State University Fall Conference on Statistics in Biology, October 13, 2008. Ames, Iowa.

1. Nilubol D, Thacker B, Wagstrom E, **Holtkamp D.J.**, Kurt J, Halbur P, Thacker E. 2002. Factors influencing production of PRRSV-free pigs from positive show herds. 17th International Pig Veterinary Society Congress. June 2, 2002. Ames, Iowa.

## **Wetlabs**

**Holtkamp D.J.**, Ruston C., Brown J., Crawford K., Swine sample collection wetlab for ISU – American Association of Swine Veterinarians student chapter. April 7, 2019. Jewell, Iowa.

## **Swine Veterinary Internship Program (SVIP) Training Sessions**

69. **Holtkamp D.J.** Scientific writing: Things to know as you prepare your abstract for the AASV student competition. SVIP mid-summer meeting. July 19, 2019. Ames, Iowa.

68. **Holtkamp D.J.** Basics of biosecurity and production. SVIP orientation. May 22, 2019. Ames, Iowa.

67. **Holtkamp D.J.** Data organization in Excel. SVIP orientation. May 21, 2019. Ames, Iowa

66. **Holtkamp D.J.** Scientific writing: Things to know as you prepare your abstract for the AASV student competition. SVIP mid-summer meeting. July 13, 2018. Ames, Iowa.

65. **Holtkamp D.J.** Basics of biosecurity and production. SVIP orientation. May 26, 2018. Ames, Iowa.

64. Polson D., **Holtkamp D.J.** Science of sampling. SVIP orientation. May 23, 2018. Ames, Iowa.

63. **Holtkamp D.J.** Data organization in Excel. SVIP orientation. May 23, 2018. Ames, Iowa

62. **Holtkamp D.J.** Scientific writing: Things to know as you prepare your abstract for the AASV student competition. SVIP mid-summer meeting. July 21, 2017. Ames, Iowa.

61. **Holtkamp D.J.** Basics of biosecurity and production. SVIP orientation. May 26, 2017. Ames, Iowa.
60. Ramirez A., **Holtkamp D.J.** Trial design, execution, analysis, interpretation. SVIP orientation. May 24, 2017. Ames, Iowa.
59. **Holtkamp D.J.** Data organization in Excel. SVIP orientation. May 24, 2017. Ames, Iowa.
58. **Holtkamp D.J.** Evaluating cost of disease & animal health interventions. SVIP orientation. May 24, 2017. Ames, Iowa.
57. Polson D., **Holtkamp D.J.** Science of sampling. SVIP orientation. May 23, 2017. Ames, Iowa.
56. **Holtkamp D.J.** Scientific writing: Things to know as you prepare your abstract for the AASV student competition. SVIP mid-summer meeting. July 15, 2016. Ames, Iowa.
55. **Holtkamp D.J.** Basics of biosecurity (and production). SVIP orientation. SVIP. May 27, 2016. Ames, Iowa.
54. **Holtkamp D.J.**, Gerardy K., Mowrer C. Biosecurity and production backgrounder, PADRAP intro, outbreak investigations. SVIP orientation. May 27, 2016. Ames, Iowa.
53. Ramirez A., **Holtkamp D.J.** Trial design, execution, analysis, interpretation. SVIP orientation. May 25, 2016. Ames, Iowa.
52. **Holtkamp D.J.** Evaluating cost of disease & animal health interventions. SVIP orientation. May 25, 2016. Ames, Iowa.
51. Polson D., **Holtkamp D.J.** Science of sampling. SVIP orientation. May 24, 2016. Ames, Iowa.
50. **Holtkamp D.J.** Scientific writing: Things to know as you prepare your abstract for the AASV student competition. SVIP mid-summer meeting. July 10, 2015. Ames, Iowa.
49. **Holtkamp D.J.** Introduction, context, history and future of risk assessment. Swine Veterinary Internship Program. SVIP orientation. May 27, 2015. Ames, Iowa.
48. **Holtkamp D.J.** PRRS outbreak investigation program and risky events. SVIP orientation. May 27, 2015. Ames, Iowa.
47. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. SVIP orientation. May 27, 2015. Ames, Iowa.
46. **Holtkamp D.J.** Basics of biosecurity. SVIP orientation. May 26, 2015. Ames, Iowa.

45. **Holtkamp D.J.**, Ramirez A. Trial design, execution, analysis, interpretation. SVIP orientation. May 21, 2015. Ames, Iowa.
44. **Holtkamp D.J.** Evaluating cost of disease & animal health interventions. SVIP orientation. May 20, 2015. Ames, Iowa.
43. Polson D., **Holtkamp D.J.** Science of sampling. SVIP orientation. May 20, 2015. Ames, Iowa.
42. **Holtkamp D.J.** Scientific writing: Things to know as you prepare your abstract for the AASV student competition. SVIP mid-summer meeting. July 11, 2014. Ames, Iowa.
41. **Holtkamp D.J.** Introduction, context, history and future of risk assessment. SVIP orientation. May 28, 2014. Ames, Iowa.
40. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. SVIP orientation. May 28, 2014. Ames, Iowa.
39. Polson D., **Holtkamp D.J.** Science of sampling. SVIP orientation. May 28, 2014. Ames, Iowa.
38. **Holtkamp D.J.** Evaluating cost of disease & animal health interventions. SVIP orientation. May 23, 2014. Ames, Iowa.
37. **Holtkamp D.J.**, Sadoris K. Trial design, execution, analysis, interpretation. SVIP orientation. May 22, 2014. Ames, Iowa.
36. **Holtkamp D.J.** Scientific writing: Things to know as you prepare your abstract for the AASV student competition. SVIP mid-summer meeting. July 11, 2013. Ames, Iowa.
35. **Holtkamp D.J.** Mid-summer meeting technical writing workshop. Swine Veterinary Internship Program. July 11, 2013. Ames, Iowa.
34. King D., Swalla R., Wolff T., **Holtkamp D.J.** Principles and methods of swine diagnostic collection, testing, and interpretation, identification of ABCE pigs, introduction to on-site training. SVIP orientation. June 3, 2013. Ames, Iowa.
33. **Holtkamp D.J.** Modern pork production terms and principles, biosecurity. SVIP orientation. June 3, 2013. Ames, Iowa.
32. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. SVIP orientation. May 29, 2013. Ames, Iowa.
31. Baker R.B., **Holtkamp D.J.** Basics of bio-security. SVIP orientation. May 29, 2013. Ames, Iowa.

30. **Holtkamp D.J.** Biosecurity backgrounder – Emphasis on PRRS virus. SVIP orientation. May 28, 2013. Ames, Iowa.
29. Polson D., **Holtkamp D.J.** Science of sampling. SVIP orientation. May 23, 2013. Ames, Iowa.
28. **Holtkamp D.J.**, Sadoris-Clemons, K., Ramirez, A. Field research trial design. SVIP orientation. May 23, 2013. Ames, Iowa.
27. **Holtkamp D.J.**, Morrision R. Scientific writing: Things to know as you prepare your abstract for the AASV student competition. SVIP mid-summer meeting. July 13, 2012. Ames, Iowa.
26. **Holtkamp D.J.** Mid-summer meeting technical writing workshop. Swine Veterinary Internship Program. July 13, 2012. Ames, Iowa.
25. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. SVIP orientation.. May 30, 2012. Ames, Iowa.
24. **Holtkamp D.J.** Introduction, context, history and future of risk assessment. SVIP orientation. May 30, 2012. Ames, Iowa.
23. Baker R.B., **Holtkamp D.J.** Basics of bio-security. SVIP orientation. May 29, 2012. Ames, Iowa.
22. **Holtkamp D.J.**, Polson D. Introduction to production economics. SVIP orientation. May 25, 2012. Ames, Iowa.
21. **Holtkamp D.J.** The science of sampling and testing. SVIP orientation. May 25, 2012. Ames, Iowa.
20. **Holtkamp D.J.** Scientific writing – Things to know as you prepare your abstract for the AASV student competition. Swine veterinary internship program (SVIP) Mid-summer meeting. July 15, 2011. Ames, Iowa.
19. **Holtkamp D.J.**, Mid-summer meeting technical writing workshop. July 15, 2011. Ames, Iowa
18. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. SVIP orientation. June 1, 2011. Ames, Iowa.
17. **Holtkamp D.J.**, Polson D. Introduction, context, history and future of risk assessment. SVIP orientation. June 1, 2011. Ames, Iowa.

16. Baker R.B., **Holtkamp D.J.** Basics of bio-security. SVIP orientation. May 31, 2011. Ames, Iowa.
15. **Holtkamp D.J.** Midsummer meeting technical writing workshop. SVIP orientation. July 9, 2010. Ames, Iowa. Ames, Iowa.
14. **Holtkamp D.J.**, Polson D. PRRS definitions / Status categorization. SVIP orientation. May 28, 2010. Ames, Iowa.
13. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. SVIP orientation. May 26, 2010. Ames, Iowa.
12. **Holtkamp D.J.**, Polson D. Introduction, context, history and future of risk assessment. SVIP orientation. May 25, 2010.
11. **Holtkamp D.J.** Scientific writing – Things to know as you prepare your abstract for the AASV student competition. Swine Veterinary Internship Program (SVIP) Mid-summer meeting. July 10, 2009. Ames, Iowa.
10. **Holtkamp D.J.** Mid-summer meeting technical writing workshop. Swine Veterinary Internship Program. July 10, 2009. Ames, Iowa.
9. **Holtkamp D.J.**, Polson D. Introduction, context, history and future of risk assessment. SVIP orientation. May 20, 2009. Ames, Iowa.
8. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. May 20, 2009. Ames, Iowa.
7. **Holtkamp D.J.**, Polson D. PRRS definitions / Status categorization. SVIP orientation. May 19, 2009. Ames, Iowa.
6. **Holtkamp D.J.**, Polson D. PRRS definitions / Status categorization. SVIP orientation. May 20, 2008. Ames, Iowa.
5. **Holtkamp D.J.**, Polson D. Introduction, context, history and future of risk assessment. SVIP orientation. May 20, 2008. Ames, Iowa.
4. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. SVIP orientation. May 20, 2008. Ames, Iowa.
3. **Holtkamp D.J.**, Polson D. Introduction, context, history and future of risk assessment. SVIP orientation. May 17, 2007. Ames, Iowa.
2. **Holtkamp D.J.** Introduction to the PRRS risk assessment tool for the breeding herd – a guided tour. SVIP orientation. May 17, 2007. Ames, Iowa.

1. **Holtkamp D.J.**, Polson D. PRRS definitions / Status categorization. SVIP orientation. May 16, 2007. Ames, Iowa.

### **American Association of Swine Veterinarians PRRS Risk Assessment Training Sessions**

78. Denver, Colorado; February 25, 2017
77. On-line training for web-based PADRAP; August 11, 2016
76. New Orleans, Louisiana; February 27, 2016
75. On-line training for web-based PADRAP; June 23, 2015
74. Orlando, Florida; February 28, 2015
73. Ames, Iowa; November 23, 2014
72. On-line training for web-based PADRAP; July 30, 2014
71. Dallas, Texas; March 1, 2014
70. St. Paul, Minnesota; September 14, 2013
69. On-line training for web-based PADRAP; June 20, 2013
68. Ames, Iowa; May 29, 2013
67. On-line training for web-based PADRAP; March 26, 2013
66. San Diego, California; March 2, 2013
65. On-line training for web-based PADRAP; October 11, 2012
64. Subotica, Serbia, September 17-19, 2012
63. On-line training for web-based PADRAP; August 14, 2012
62. On-line training for web-based PADRAP; May 18, 2012
61. On-line training for web-based PADRAP; April 16, 2012
60. Denver, Colorado; March 10, 2012
59. On-line training for web-based PADRAP; February 6, 2012
58. On-line training for Canadian PADRAP; November 21, 2011
57. On-line training for Canadian PADRAP; November 30, 2011
56. Ames, Iowa; July 7, 2011
55. On-line training for web-based PADRAP; May 12, 2011
54. Phoenix, Arizona; March 5, 2011
53. On-line training for web-based PADRAP; December 6, 2010
52. On-line training for web-based PADRAP; August 26, 2010
51. Marshall, Minnesota; August 24, 2010
50. Williamsburg, Iowa; August 18, 2010
49. On-line training for web-based PADRAP; August 4, 2010
48. Ames, Iowa; July 8, 2010
47. On-line training for web-based PADRAP; June 17, 2010
46. On-line training for web-based PADRAP; May 27, 2010
45. Quebec, Canada; May 10, 2010
44. On-line training for web-based PADRAP; May 4, 2010
43. On-line training for web-based PADRAP; March 24, 2010
42. Omaha, Nebraska; March 6, 2010
41. On-line training for web-based PADRAP; July 8, 2009
40. On-line training for web-based PADRAP; May 4, 2009
39. St. Peter, Minnesota; June 12, 2009

38. On-line training for web-based PADRAP; March 24, 2009
37. Dallas, Texas; March 7, 2009
36. On-line training for web-based PADRAP; February 25, 2009
35. On-line training for web-based PADRAP; February 5, 2009
34. Ames, Iowa; December 8, 2008
33. Quebec City, Quebec, Canada; November 13, 2008
32. On-line training for web-based PADRAP; November 04, 2008
31. Obregon, Sonora, Mexico; October 29, 2008
30. On-line training for web-based PADRAP; October 02, 2008
29. Wilmington, NC; August 14, 2008
28. On-line training for web-based PADRAP; August 06, 2008
27. Morelia, Michoacán, Mexico; July 24, 2008
26. Morelia, Michoacán, Mexico; July 25, 2008
25. On-line training for web-based PADRAP; July 10, 2008
24. On-line training for web-based PADRAP; June 30, 2008
23. On-line training for web-based PADRAP; June 10, 2008
22. Des Moines, Iowa; June 05, 2008
21. Mexico City, Mexico; June 03, 2008
20. On-line training for web-based PADRAP; May 02, 2008
19. On-line training for web-based PADRAP; April 29, 2008
18. San Diego, California; March 08, 2008
17. On-line training for web-based PADRAP; March 03, 2008
16. On-line training for web-based PADRAP; February 26, 2008
15. On-line training for web-based PADRAP; February 25, 2008
14. Calgary, Alberta, Canada; February 21, 2008
13. Winnipeg, Manitoba, Canada; February 22, 2008
12. On-line training for web-based PADRAP; February 12, 2008
11. On-line training for web-based PADRAP; January 31, 2008
10. Jackson Hole Wyoming; January 10, 2008
9. Ames, Iowa; January 08, 2008
8. Ames, Iowa; November 10, 2007
7. Des Moines, Iowa; June 07, 2007
6. Stratford, Ontario, Canada; April 25, 2007
5. Stratford, Ontario, Canada; April 26, 2007
4. Orlando, Florida; March 03, 2007
3. Ames, Iowa; November 08, 2006
2. St. Paul, Minnesota; September 23, 2006
1. Des Moines, Iowa; June 07, 2006

## **Wetlabs**

Swine sample collection wetlab. Organized by the American Association of Swine Veterinarians Student Chapter. April 7, 2019. Jewell, Iowa.

## **Forums / Panels**

3. Prioritizing biosecurity investments. 2018 ISU James D. McKean Swine Disease Conference. November 1, 2018. Ames, Iowa.
2. Tonistry preweaning mortality panel. World Pork Expo. June 6, 2018. Des Moines, Iowa.
1. Purina Animal Nutrition Feeding for 30 forum. World Pork Expo. June 5, 2013. Des Moines, Iowa.

## **Faculty Professional Activities**

### **Editorial Board/Reviewer/Grant Reviewer**

22. Reviewer, Porcine Health Management (3)
21. Reviewer, Veterinary Microbiology (2)
20. Reviewer, Swine Health Information Center grant proposals (5)
19. Natural Sciences and Engineering Research Council, Collaborative Research and Development Grants proposals (1)
18. Reviewer, Plos One, (5)
17. Reviewer, Macedonian Veterinary Review (1)
16. Reviewer, NIFA 1890 Capacity Building Grants (1)
15. Reviewer, AASV Foundation for knowledge translation and transfer, Reducing the risk of pathogen spread during farm feed delivery (1)
14. Reviewer, BMC Veterinary Research (7)
13. Reviewer, Preventive Veterinary Medicine (9)
12. Reviewer, American Journal of Veterinary Research (2)
11. Reviewer, Vaccine (3)
10. Reviewer, Animal Production and Protection topic area of the Small Business Innovation Research (SBIR) program at the U.S. Department of Agriculture (USDA) proposal (1)
9. Reviewer, Ontario Ministry of Agriculture and Food grant proposal (2)
8. Reviewer, Transboundary and Emerging Diseases (7)
7. Reviewer, Journal of Applied Statistics (1)
6. Reviewer, Veterinary Record (5)
5. Reviewer, Journal of Animal Science (3)
4. Reviewer, Virus Research (1)
3. Reviewer, Journal of Swine Health and Production (11)
2. Reviewer, National Pork Board grant proposals (17)
1. Reviewer, Choices Magazine, Agricultural and Applied Economics Association (1)

### **Organizational Responsibilities for Meetings**

12. Chair, pre-conference seminar. Conducting effective outbreak investigations. American Association of Swine Veterinarians Annual Meeting. 2019.



11. Program planning committee. ISU James D. McKean Swine Disease Conference (formerly Iowa State University Swine Disease Conference for Swine Practitioners). 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018.
10. Chair, session. ISU James D. McKean Swine Disease Conference (formerly Iowa State University Swine Disease Conference for Swine Practitioners). 2009, 2012, 2014, 2018.
9. Scientific committee, International Pig Veterinary Society Congress. 2014, 2016.
8. Co-chair, session, International Pig Veterinary Society Congress. 2010, 2012, 2014, 2016.
7. Scientific program committee. International PRRS Symposium. 2009, 2010.
6. Co-chair, session. Epidemiology, Heterogeneity, and Evolution. International PRRS Symposium. 2009, 2010.
5. Program planning and organization. Swine Veterinary Internship Program Mid-Summer Meeting. 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018.
4. Program planning committee. American Association of Swine Veterinarians Annual Meeting. 2009, 2016.
3. Co-chair, pre-conference session. Managing PRRS introduction into high risk populations. American Association of Swine Veterinarians Annual Meeting. 2009.
2. Moderator, Panel discussion on porcine circovirus associated disease (PCVAD). Iowa State University Swine Disease Conference for Swine Practitioners. 2006.
1. Chair, pre-conference session. PRRS Risk Assessment Training for the Breeding Herd. American Association of Swine Veterinarians Annual Meeting. 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017.

**Professional Societies: Offices/Committees/Memberships/Panels**

change numbering

13. Swine Medicine Education Center (SMEC)  
Curriculum Reviewer, 2016
12. Swine Health Information Center (SHIC)  
Preparedness and response working group, 2015-present  
Rapid response team working group, 2015-present
11. National Institute for Animal Agriculture (NIAA)  
Global Animal Health, Food Security and Trade Council, 2015-present

10. Safe Pork Supply (SPS) Biosecurity Working Group, supported by National Pork Board and USDA, APHIS, 2013-2015

9. American Association of Swine Veterinarians (AASV)  
PRRS herd classification and definitions (updates) committee, 2018-2019  
PRRS elimination working group, 2015-2018  
PRRS task force committee, 2012-present  
Subcommittee to develop a position description for Director of Swine Health Programs (DSHP), 2010-2011  
Communications Committee, 2006-2018  
PADRAP Advisory Committee, 2008-2018  
PRRS herd classification and definitions committee, 2009-2010  
North American PRRS Eradication Task Force, Ex Officio, 2006-2007

8. American Veterinary Medical Association (AVMA)

7. Agricultural and Applied Economics Association (*Formerly American Agricultural Economics Association*) (AAEA)

6. Iowa Veterinary Medical Association (IVMA)  
Iowa Veterinary Political Action Committee 2012-present  
Legislative Committee 2006-present  
I Vet PAC Auction Committee 2008

5. United States Animal Health Association (USAHA)

4. Iowa Pork Producers Association (IPPA)

3. Story County Pork Producers Association

2. Iowa Farm Animal Care (IFAC) evaluation team, 2013-present

### **University Committees**

1. E-leaders committee, Representative from College of Veterinary Medicine, 2015-present

### **College Committees**

4. College of Veterinary Medicine Admissions committee, 2014-present  
Rubric Subcommittee, 2017

3. College of Veterinary Medicine (CVM) Governance Council, 2013-present

2. Student awards committee, 2007-2014

1. Committee on Reducing the Cost and Improving the ROI of an ISU DVM Degree, 2016-2017

Co-chair of working group on adding value to the ISU DVM degree, 2016-2017

### **Department Committees**

8. VDPAM Swine Medicine Section Leader, 2015-2016

7. Board of Directors, Swine Medical Education Center, 2015-2016

6. VDPAM IT committee, 2015-2018

5. VDPAM Strategic Planning and Governance Committee, 2010-2015

4. Performance Review Committees

Three year peer review committee, Drs. Drew Magstadt, Maria Jose Clavijo, 2019

Three year peer review committee, Drs. Orhan Sahin, Amanda Kreuder, 2019

Three year peer review committee, lead reviewer, Dr. Troy Brick, 2018

VDPAM department chair review committee, Dr. Pat Halbur, 2016

Three year peer review committee, lead reviewer, Dr. Butch Baker, 2013

Post-tenure review committee, lead reviewer, Dr. Terry Engelken, 2013

3. Search committee for Swine Medicine Entrepreneurship position in VDPAM, Chair, 2014-2015

2. Search committee for Swine Medicine Extension position in VDPAM, 2014

1. Search committee for Serology Section Leader in VDPAM, 2014

### **Certifications**

1. Certified trainer for the National Pork Board's PQA Plus program

### **Mentoring and Advising**

#### **Faculty Mentoring**

3. Faculty mentor for Mohamed El-Gazzar 2018-present

2. Faculty mentor for Daniel Linhares 2015-present

1. Faculty mentor for Ganwu Li, 2014-present

## **Graduate Student Committees**

### ***Major Professor***

7. Chelsea Ruston, MS, Veterinary Preventive Medicine – Expected graduation May 2022
6. Rita Neat, MS, Veterinary Preventive Medicine–Expected graduation May 2021
5. Kim Baker, MS, Veterinary Preventive Medicine–Expected graduation May 2020
4. Caleb Robb, MS, Veterinary Preventive Medicine – Graduated May 2015
3. Peter Schneider, MS, Veterinary Preventive Medicine – Graduated December 2013
2. Hui Lin, MS, Statistics – Graduated 2011
1. Jess Waddell, MS, Veterinary Preventive Medicine – Graduated May 2010

### ***POS Committee***

15. Will Lopez, PhD, Population Sciences in Animal Health – Expected graduation May 2020
14. Ben Smith, PhD, Agriculture and Biosystems Engineering - Expected graduation May 2023
13. Justin Brown, PhD, Veterinary Microbiology – Expected graduation May 2020
12. Cesar Amorim-Moura, PhD, Population Sciences in Animal Health – Expected graduation May 2020
11. Qianrong Wu, PhD, Economics – Graduated May 2017
10. Paul Thomas, MS, Veterinary Preventive Medicine – Graduated May 2015
9. Qi Chen, PhD, Veterinary Microbiology– Graduated May 2017
8. Chris Sievers, MS, Veterinary Preventative Medicine - Graduated in 2015
7. Paige Baltzell, MS, Veterinary Preventative Medicine - Graduated in 2015
6. Fangfang Liu, PhD, Statistics – Expected graduation in 2015
5. Hui Lin, PhD, Statistics – Graduated December 2013
4. Chris Olsen, MS, Veterinary Preventative Medicine – Graduated in 2012
3. Apisit Kittawornrat, MS, Veterinary Preventative Medicine - Graduated 2010
2. John Prickett, PhD, Veterinary Microbiology and Preventative Medicine – Graduated 2009
1. Amber Stricker, MS, Veterinary Preventive Medicine – Graduated 2008

### **Postdoc Mentoring**

1. Gustavo De-Sousa-E-Silva, 2017-2019

### **Veterinary Professional Student Mentoring**

185. Kim Baker, Iowa State University, 2018
184. Gabrielle Fry, Purdue University, 2018
183. Rachel Stika, Iowa State University, 2018

182. Katie Kehl, Kansas State University, 2018
181. Jonathon Tubbs, Auburn University, 2018
180. Amanda Anderson, Iowa State University, 2018
179. Megan Bloemer, University of Illinois, 2018
178. Sophie Leone, Colorado State University, 2018
177. Jamie Madigan, North Carolina State University, 2018
176. Drew Noel, Iowa State University, 2018
175. Alexia Riley, University of Minnesota, 2018
174. Abby Vennekotter, University of Illinois, 2018
173. Jake Baker, Iowa State University, 2018
172. Sam Baker, Iowa State University, 2018
171. Daniel Brown, University of Illinois, 2018
170. Kayla Castevens, North Carolina State University, 2018
169. Matt Finch, Iowa State University, 2018
168. Shelby Perkins, University of Missouri, 2018
167. Anne Szczotka, Iowa State University, 2018
166. Emily Schwake, Iowa State University, 2018
165. Brette Ratliff, University of Tennessee, 2018
164. Jake Baker, Iowa State University, 2017
163. Brandi Burton, University of Illinois, 2017
162. Taylor Homann, University of Minnesota, 2017
161. Marjorie Schleper, University of Minnesota, 2017
160. Rachel Schulte, Iowa State University, 2017
159. Mikalah Smith, Iowa State University, 2017
158. Rachel Stika, Iowa State University, 2017
157. Allison Knox, University of Illinois, 2017
156. Evan Koep, Iowa State University, 2017
155. Megan Nickel, Iowa State University, 2017
154. Katrina Troppy, Oklahoma State University, 2017
153. Jonathon Tubbs, Auburn, 2017
152. Shelby Perkins, University of Missouri, 2017
151. Megan Bloemer, University of Illinois, 2017
150. Jewell Bremer, North Carolina State, 2017
149. CJ Fitzgerald, Iowa State University, 2017
148. Megan Hood, North Carolina State, 2017
147. Elizabeth Noblett, North Carolina State, 2017
146. Abby Ruane, Iowa State University, 2017
145. Joel Steckelberg, Iowa State University, 2017
144. Grzegorz Tarasiuk, Polan-Uniwersyteckie Centrum Medycyny Weterynaryjnej UJ-UR 2017
143. Alexandria Bufford, Tuskegee, 2017
142. Kayla Hennes, University of Illinois, 2017
141. Lindsay Fredricks, Iowa State University, 2017
140. Stephanie Betbeze, Lincoln Memorial, 2017
139. Bryant Chapman, Virginia Maryland Regional, 2017
138. Kimberlee Baker, Iowa State University, 2017

137. Alyssa Anderson, University of Minnesota, 2016
136. Stephanie Betbeze, Lincoln Memorial University, 2016
135. Kayla Blake, Auburn University, 2016
134. Taylor Engle, Virginia Maryland Regional, 2016
133. Kayla Henness, University of Illinois, 2016
132. Evan Koep, Iowa State University, 2016
131. Nic Lauterbach, Iowa State University, 2016
130. Shannon Ure, University of Illinois, 2016
129. Brandi Burton, University of Illinois, 2016
128. T'Lee Girard, Iowa State University, 2016
127. Allison Knox, University of Illinois, 2016
126. Rachel Brooks-Schulte, Iowa State University, 2016
125. Megan Bloemer, University of Illinois, 2016
124. Christopher Deegan, University of Minnesota, 2016
123. Kylie Glisson, North Carolina State, 2016
122. Megan Hood, North Carolina State, 2016
121. Michael Mardesen, Iowa State University, 2016
120. Brent Sexton, Iowa State University, 2016
119. Joel Steckelberg, Iowa State University, 2016
118. Zhen Yang, University of Minnesota, 2016
117. Cassandra Fitzgerald, Iowa State University, 2016
116. Claire Behnke, University of Illinois, 2015
115. Kayla Blake, Auburn University, 2015
114. Victoria Foerster, Iowa State University, 2015
113. T'Lee Girard, Iowa State University, 2015
112. Kylie Glisson, North Carolina State, 2015
111. Claire LeFevre, University of Wisconsin, 2015
110. Olivia Myers, North Carolina State, 2015
109. Timothy Pearson, University of Tennessee, 2015
108. Blake Setness, Iowa State University, 2015
107. Brent Sexton, Iowa State University, 2015
106. Corrine Stoffel, University of Illinois, 2015
105. Stephanie Tarlowe, Cornell, 2015
104. Nicole Thomas, University of Illinois, 2015
103. Kathleen Wood, North Carolina State, 2015
102. Thomas Wurtz, Washington-Idaho-Montana-Utah Regional, 2015
101. Natalie Didier, University of Illinois, 2014
100. Henry Johnson, University of Illinois, 2014, 2015
99. Brigitte Mason, University of Illinois, 2014
98. Quinn Robinson, Iowa State University, 2014
97. Mackenzie Kelling, University of Illinois, 2014
96. Kayla Ohrt, Iowa State University, 2014
95. Jackie Meyers, Iowa State University, 2014
94. Cassandra Griebel, University of Minnesota, 2014
93. Daniel Breuer, Iowa State University, 2014
92. Daniel Carreno, North Carolina State University, 2014

91. Donna Drebes, University of Minnesota, 2014, 2015
90. Joseph Yaros, Cornell, 2014
89. Laura Carroll, North Carolina State University, 2014
88. Daniel Gascho, Purdue, 2014, 2015
87. Chelsea Onken, Iowa State University, 2014
86. Mary O'Loughlin, Iowa State University, 2014, 2015
85. Amanda Harris, Iowa State University, 2014
84. Alex Hintz, University of Wisconsin, 2013
83. Ryan Strobel, University of Minnesota, 2013, 2015
82. Tyler Te Grotenhuis, Iowa State University, 2013-2014
81. Cody Branstad, Iowa State University, 2013
80. Colleen Crozier, North Carolina State University, 2013
79. Courtney Brumbaugh, Purdue University, 2013
78. Jonathan Ertl, University of Minnesota, 2013
77. Jessica Johnson, University of Minnesota, 2013-2014
76. Andrew Kryzer, University of Minnesota, 2013
75. Brianna Peters, University of Tennessee, 2013-2014
74. Anna Samson, Colorado State University, 2013
73. Cody Yager, Virginia-Maryland Regional College of Veterinary Medicine, 2013
72. Brittney McLamb, North Carolina State University, 2013
71. Chris Olsen, Iowa State University, 2013
70. Scott Radke, Iowa State University, 2013-2014
69. Lisa Yeske, Iowa State University, 2012
68. Daniel Borchers, Iowa State University, 2012
67. Megan Brackeen, University of Wisconsin, 2012
66. Ethan Spronk, University of Minnesota, 2012-2013
65. Shonna Parker, University of Tennessee, 2012
64. Daniel Meyer, Iowa State University, 2012-2013
63. William Fombelle, University of Illinois, 2012-2013
62. Joshua Duff, North Carolina State University, 2012
61. Amy Daniels, University of Illinois, 2012-2013
60. Daniel Boykin, North Carolina State University, 2012-2014
59. Nicolas Mayer, University of Minnesota, 2012
58. Levi Johnson, Iowa State University, 2012-2013
57. Stacey Brussell, University of Minnesota, 2012
56. Kalie Pettit, University of Minnesota, 2012
55. Holly Rud, University of Minnesota, 2012
54. Katherine Wedel, University of Minnesota, 2012-2013
53. Anne Duquette, University of Minnesota, 2012
52. Sam Holst, University of Minnesota, 2012
51. Christopher Sievers, Iowa State University, 2012-2014
50. Brian Bishop, Iowa State University, 2011
49. Kevin Dobesh, Iowa State University, 2011-2012
48. Cara Dykhuis, Iowa State University, 2011
47. Aubrey Hauswirth, Iowa State University, 2011
46. Kurt Kuecker, Iowa State University, 2011

45. Caleb Robb, Iowa State University, 2011-2013
44. Paul Thomas, Iowa State University, 2011
43. Kelsey Altholz, North Carolina State University, 2011
42. Emily Kuntz, University of Illinois, 2011
41. Amelia Naher, Washington State University, 2011
40. Jared Jacobson, Iowa State University, 2011
39. Justin Kuecker, Iowa State University, 2011-2013
38. Wesley Lyons, University of Tennessee, 2011-2012
37. Michael Nagorske, University of Minnesota, 2011
36. Elisse Schlueter, University of Minnesota, 2011
35. Megan Schnur, Purdue University, 2011-2013
34. Bethany Stammen, The Ohio State University, 2011-2012
33. Jessica Abbott, Iowa State University, 2010
32. Deanne Day, Iowa State University, 2010
31. Jordan Graham, Iowa State University, 2010-2012
30. Abbey Harding, University of Illinois, 2010
29. Kristy Kenney, North Carolina State University, 2010
28. Peter Lasley, Iowa State University, 2010
27. Britni Miller, University of Illinois, 2010
26. Adam Schelkopf, University of Illinois, 2010
25. Peter Schneider, Iowa State University, 2010
24. Michael Slattery, Iowa State University, 2010-2011
23. Andrew Stas, University of Pennsylvania, 2010
22. Jonathan Tangen, Iowa State University, 2010-2011
21. Anna Massie, University of Illinois, 2010
20. William Shamus Brown, Iowa State University, 2009, 2011
19. Jenna Cherry, Iowa State University, 2009
18. Kate Dion, Iowa State University, 2009
17. Philip Sadler, Iowa State University, 2009
16. Jacob Schwartz, University of Minnesota, 2009-2010, 2012
15. Micah Taylor, University of Illinois, 2009
14. Brent Carmichael, Iowa State University, 2008-2009
13. Seth Krantz, University of Tennessee, 2008
12. Emily McDowell, Iowa State University, 2008
11. Aaron Lower, University of Illinois, 2007
10. Abbie Redalen, University of Minnesota, 2007, 2010
9. Jen Arnold, Iowa State University, 2007
8. John Greving, Iowa State University, 2007
7. Lori Feldman, Iowa State University, 2007
6. Melissa Grant, Iowa State University, 2007
5. Keri Shaver, North Carolina State University, 2006
4. Mary Luebbers, University of Minnesota, 2006
3. Mitch Christensen, Iowa State University, 2006
2. Nathan Schaefer, University of Minnesota, 2006
1. Amber Stricker, Iowa State University, 2006



### **Undergraduate Student Mentoring**

26. Eli Blay, Iowa State University, 2018
25. Katyann Graham, Iowa State University, 2018
24. Amanda Anderson, Iowa State University, 2017
23. Amanda Andersen, Iowa State University, 2016
22. Rachel Stika, Iowa State University, 2016
21. Marjorie Schleper, University of Wisconsin, 2014
20. Holly Salzbrenner, University of Northern Iowa, 2014
19. Cassandra Fitzgerald, Iowa State University, 2014-2015
18. Allysa Koethe, Iowa State University, 2015
17. Kimberlee Gerardy, Iowa State University, 2013-2014
16. Jacob Baker, Iowa State University, 2013
15. Rebecca Moest, Iowa State University, 2013
14. Breanna Gourley, Iowa State University, 2012
13. Monica Madsen, Iowa State University, 2012
12. Hallie Frobose, Oklahoma State University, 2011
11. Tess Bousema, Iowa State University, 2011
10. Quinn Robinson, Iowa State University, 2010-2011
9. Christopher Sievers, Iowa State University, 2010-2011
8. Allison Buck, Iowa State University, 2010
7. Rachel Freeseaman, Iowa State University, 2010
6. Jared Graham, Iowa State University, 2010
5. Caleb Robb, Iowa State University, 2010
4. Dawn Bailey, Iowa State University, 2009
3. Emily Cardella, Iowa State University, 2008-2010
2. Laura Geerdes, Iowa State University, 2008
1. Jessica Abbott, Iowa State, University, 2007-2008

### **Preparing Future Faculty Program, Faculty mentor**

1. Ben Smith, 2020

### **Student Organization Advising**

change numbering

0. Faculty advisor for the student American Association of Swine Veterinarians club at Iowa State University, 2006-present.

### **Teaching**

<b>Course</b>	<b>Credits</b>	<b>Lectures/Year</b>	<b>Students</b>	<b>Sem/Yr Taught</b>
<b>Co-instructor and Guest Lecturer (graduate program)</b>				
VDPAM 560: Ecology of Infectious Disease				
	<b>Credits</b>	<b>Lectures</b>	<b>Students</b>	<b>Semester</b>

1	8	20	Spr 2019
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**Instructor-in-Charge (professional program)**

VDPAM 309: Introduction to Production Animal Informatics

Credits	Lectures	Students	Semester
1	10	46	Spr 2019
1	10	27	Spr 2018
1	10	24	Spr 2017
1	10	24	Spr 2016
1	10	24	Spr 2015
1	10	15	Spr 2014
1	10	17	Spr 2013
1	10	29	Spr 2012
1	10	11	Spr 2011
1	10	28	Spr 2010
1	10	12	Spr 2009
1	10	20	Spr 2008
1	10	65	Spr 2007

VDPAM 419: Advanced Swine Production Informatics

1	13	9	Fall 2019
1	13	10	Fall 2018
1	13	4	Fall 2017
1	13	9	Fall 2016
1	13	5	Fall 2015
1	13	8	Fall 2014
1	13	6	Fall 2013
1	13	5	Fall 2012
1	13	8	Fall 2011
1	13	9	Fall 2010
1	13	5	Fall 2009
1	13	6	Fall 2008
1	13	6	Fall 2007

VDPAM 480: Advanced Swine Production Medicine

2	Provided feedback on student projects	2006 - present
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**Co-instructor (professional program)**

VDPAM 411: Production Animal Medicine

4	4	15	Spr 2008
4	5	20	Spr 2007
4	5	15	Spr 2006

Role: Gave lectures on porcine reproductive and respiratory syndrome (PRRS) virus, assessing disease risks and evaluating economics of disease interventions

VDPAM 414: Veterinary Entrepreneurship

3	1	26	Spr 2019
3	1	26	Spr 2018
3	1	29	Spr 2017
3	1	34	Spr 2016
3	1	26	Spr 2015
3	1	30	Spr 2014
3	1	19	Spr 2013
3	1	13	Spr 2012
3	1	50	Spr 2011

Role: Give one lecture on evaluation of investment decisions. Schedule and coordinate 4 to 5 guest lectures.

**Contributor (professional program)**

VCS 495: Grand Rounds

2007 - 2018

Role: Evaluate student presentations

**Co-instructor (undergraduate)**

VDPAM 487: Livestock Disease Prevention

3	2	??	Fall 2019
3	2	65	Fall 2018
3	2	98	Fall 2017
3	2	110	Fall 2016
3	2	88	Fall 2015
3	2	94	Fall 2014
3	2	55	Fall 2013
3	2	62	Fall 2012
3	2	33	Fall 2011
3	2	45	Fall 2010
3	2	30	Fall 2009
3	2	24	Fall 2008
3	1	19	Fall 2007

Role: Give two lecture on assessing risks and classifying health status of herds.

**Contributor (undergraduate)**

ECON 334: Entrepreneurship in Agriculture

3

Spr 2019

3  
3  
3  
3  
3  
3  
3

Fall 2018  
Fall 2017  
Fall 2016  
Fall 2015  
Spr 2014  
Fall 2013  
Fall 2012

Role: Evaluate new business concept pitches and business plans.