

Jason Wayne Ross

		Degrees Held	
Ph.D.	Reproductive Physiology, Minor in Biochemistry	Oklahoma State University	2006
M.S.	Animal Science	Oklahoma State University	2003
B.S.	Animal Science	Iowa State University	2000

Summary of Career Employment

July, 2019-Present- Iowa State University, Ames, Iowa. Director of the Iowa Pork Industry Center and Lloyd L. Anderson Professor in Reproductive Physiology and Biotechnology, Animal Science Department. Appointment: 60% Research, 40% Administration and Extension

October, 2014-Present- Lloyd L. Anderson Endowed Professor in Physiology

October, 2015-June, 2019- Iowa State University, Ames, Iowa. Director of the Iowa Pork Industry Center and Associate Professor in Reproductive Physiology and Biotechnology, Animal Science Department. Appointment: 60% Research, 40% Administration and Extension

July, 2014-October, 2015 - Iowa State University, Ames, Iowa, Associate Professor, Reproductive Physiology and Biotechnology, Animal Science Department. Appointment: 65% Research, 35% Teaching

August, 2008 – July, 2014 – Iowa State University, Ames, Iowa, Assistant Professor, Reproductive Physiology and Biotechnology, Animal Science Department. Appointment: 65% Research, 35% Teaching

November, 2006 – August, 2008 – University of Missouri, Columbia, MO, Postdoctoral Research Scientist, Division of Animal Science

January, 2007 – May, 2007 – Lincoln University, Jefferson City, MO, Adjunct Professor, Jefferson City, MO

January 2001 – October, 2006 – Oklahoma State University, Stillwater, OK, Graduate Research Assistant, Animal Science Department

Iowa State University Personnel Record

Courtesy Appointment: Biomedical Sciences Department, College of Veterinary Medicine, Iowa State University

Courtesy Appointment: Veterinary Diagnostic and Production Animal Medicine Department, College of Veterinary Medicine, Iowa State University

Director of the Animal Gene Transfer Facility

(www.biotech.iastate.edu/service_facilities/animal_gene_transfer.html)

Member of Molecular Cellular and Developmental Biology Interdepartmental Graduate Program

Member of Interdepartmental Genetics Graduate Program
Member of Interdepartmental Neuroscience Graduate Program
Section Leader for Physiology Section of Animal Science Department

Professional Affiliations and Activities

Society for the Study of Reproduction- Member 2002-Present

American Society for Animal Science-Member 2009-Present

Midwest Section of the American Society for Animal Science- Member 2009-Present

Awards and Honors

2015: Recipient of the Iowa State University Early Achievement in Research Award.

2014: Inaugural holder of the Lloyd L. Anderson Professorship in Physiology.

2014: Recipient of the American Society of Animal Science Early Career Achievement Award.

2012: Recipient of the Iowa State University College of Agriculture and Life Sciences Early Achievement in Research Award.

2006: Recipient of Food for the 21st Century Postdoctoral Fellowship in the Department of Animal Science, University of Missouri.

2006: Oklahoma State University department of Animal Science Outstanding Doctor of Philosophy Graduate Student Award.

2004 – 2006: Recipient of Robert Glenn Rapp Foundation Distinguished Graduate Fellowship from the Graduate College at Oklahoma State University.

2004: Recipient of the Oklahoma State University College of Agricultural Sciences and Natural Resources McAlister Scottish Rite Scholarship for academic achievement and leadership.

2004: Recipient of the Oklahoma State University College of Agricultural Sciences and Natural Resources William's Outstanding Thesis Award for thesis entitled, "Identification and Analysis of Genes Regulating Early Conceptus Development, Maternal Recognition of Pregnancy and Implantation in the Pig".

2003-2005: Recipient of the Oklahoma State University College of Agricultural Sciences and Natural Resources Sitlington Enriched Graduate Scholarship.

2003 – 2004: Selected as a graduate student mentor for the College of Agriculture's Critical Thinking in the Biological Sciences program funded by the Howard Hughes Medical Institute.

2003: 1st Place Oral Presentation in the Animal Science Whiteman Graduate Competition for Outstanding Research Paper during the OSU 14th Annual Graduate Student Research Symposium.

2003: Oklahoma State University department of Animal Science Outstanding Master of Science Graduate Student Award.

PUBLICATIONS

Peer Reviewed Journal Articles

1. **Ross J.W.**, Ashworth M.D., Hurst A.G., Malayer J.R. and Geisert R.D. Analysis and characterization of differential gene expression during rapid trophoblastic elongation in the pig using suppression subtractive hybridization. *Reproductive Biology and Endocrinology* 2003; 1:23.
2. **Ross J.W.**, Malayer J.R., Ritchey J.W. and Geisert R.D. Involvement of the interleukin-1 β system in porcine trophoblastic elongation and at the fetal-maternal interface during peri-implantation development. *Biology of Reproduction* 2003; 69:1251-1259.
3. Vonnahme K.A., Ferando S.C., **Ross J.W.**, Ashworth M.D., DeSilva U., Malayer J.R. and Geisert R.D. Porcine endometrial and conceptus expression of kininogen, plasma kallikrein and factor XII in cyclic and pregnant gilts. *Biology of Reproduction* 2004; 70:132-138.
4. **Ross J.W.**, Smith, T.K., Krehbiel C.R., Geisert R.D., Malayer J.R., DeSilva U., Morgan J.B. and White F.J. Effects of grazing management and subsequent finishing on gene expression in adipose tissue from steers. *Journal of Animal Science* 2005; 83:1914-1923.
5. Ashworth, M.D., **J.W. Ross**, D.T. Allen, D.R. Stein, L.J. Spicer, U. DeSilva, and R.D. Geisert. Endocrine disruption of uterine insulin-like growth factor (IGF) expression in the pregnant gilt. *Reproduction* 2005; 130:545-551.
6. White F.J., **J.W. Ross**, M.M. Joyce, R.D. Geisert, R.C. Burghardt and G.A. Johnson. 2005. Steroid regulation of cell specific osteopontin expression in the pregnant porcine uterus. *Biology of Reproduction* 2005; 73:1294-1301.
7. Ashworth, M.D., **J.W. Ross**, J. Hu, F.J. White, D.R. Stein, U. DeSilva, G.A. Johnson, T.E. Spencer and R.D. Geisert. Characterization of endometrial cyclooxygenase expression during the porcine estrous cycle, early pregnancy and following endocrine disruption of pregnancy. *Biology of Reproduction* 2006; 74:1007-1015
8. Spencer D. S., **J.W. Ross**, M. D. Ashworth, R. D. Geisert, L. S. Rickords. Porcine conceptus Oct-4 mRNA expression during peri-implantation development. *Reproduction in Domestic Animals* 2006; 41:571-572.
9. Fernando S.C., M.S. Ashworth, **J.W. Ross**, U. DeSilva and R.D. Geisert. Porcine endometrial and conceptus tissue kallikrein 1, 4, 11 and 14 gene expression. *Reproduction* 2006; 132:939-947.
10. Joyce M.M., Burghardt R.C., Geisert R.D., Burghardt J.R., Hooper R.N., **Ross J.W.**, Ashworth M.D., Johnson G.A. Pig conceptuses secrete estrogen and interferons to differentially regulate uterine STAT1 in a temporal and cell-type specific manner. *Endocrinology* 2007; 148:4420-4431.
11. **Ross J.W.**, Ashworth M.D., White F.J., Johnson G.A., Ayoubi P.J., DeSilva U., Whitworth K.M., Prather R.S., Geisert R.D. Premature estrogen exposure alters endometrial gene expression to disrupt pregnancy in the pig. *Endocrinology* 2007; 148:4761-4773.
12. **Ross J.W.**, Ashworth M.D., Stein D.R., Couture, O.C., Tuggle C.K., Geisert R.D. Identification of differential gene expression during porcine conceptus rapid trophoblastic

- elongation and attachment to the uterine luminal epithelium. *Physiological Genomics* 2009; 36:140-148.
13. Hao Y., Wax D., Zhong Z., Murphy C.N., **Ross J.W.**, Rieke A., Samuel M.S., Spate L., Dyce P., Li J., Sutovsky P., Prather R.S. Skin-derived stem cells may be useful for cloning pigs and transgenesis. *Cloning and Stem Cells* 2009; 11:101-110.
 14. Zhao J., **Ross J.W.**, Hao Y., Wax D.M., Spate L.D., Walters E.M., Samuel M.S., Rieke A., Murphy C.N., Prather R.S. Significant improvement in cloning efficiency of an inbred miniature pig by histone deacetylase inhibitor treatment after somatic cell nuclear transfer. *Biology of Reproduction* 2009; 81:525-530.
 15. Zhao J., Hao Y., **Ross J.W.**, Spate L., Walters E., Samuel M.S., Rieke A., Murphy C.N., Prather R.S. Histone deacetylase inhibitors improve in vitro and in vivo developmental competence of somatic nuclei nuclear transfer porcine embryos. *Cellular Reprogramming* 2010; 12:75-83.
 16. Ashworth, M.D., **Ross J.W.**, Stein D.R., DeSilva U., White F., Geisert R.D. Endometrial caspase 1 and interleukin-18 expression during the porcine estrous cycle and peri-implantation period of pregnancy and response to early exogenous estrogen administration. *Reproductive Biology and Endocrinology* 2010; 8:33.
 17. **Ross J.W.**, Ashworth M.D., Mathew D., Regan P., Ritchey J.W., Hayashi K., Spencer T.E., Lucy M., Geisert R.D. Activation of nuclear factor kappa B during the opening of the implantation window in the pig. *Reproductive Biology and Endocrinology* 2010; 8:39.
 18. **Ross J.W.**, Whyte J.J., Zhao J., Samuel M., Wells K.D., Prather R.S. Optimization of square-wave electroporation for transfection of porcine fetal fibroblasts. *Transgenic Research* 2010; 19:611-620.
 19. Ashworth M.D., **Ross J.W.**, Stein D., White F.J., Geisert R.D. Porcine endometrial Gene expression of acute phase extracellular matrix components following estrogen disruption of pregnancy. *Animal Reproduction Science* 2010; 122:215-221.
 20. Ross J.W., Fernandez Castro J., Zhao J., Samuel M., Walters E., Rios C., Bray-Ward P., Wang W., Zhou L., Noel J., McCall M., DeMarco P., Prather R.S., Kaplan H.J. Generation of an inbred miniature pig model of retinitis pigmentosa. *Investigative Ophthalmology and Visual Science* 2012 53:501-7. (Monthly Research Highlight for the Journal).
 21. Ashworth M.D., Ross J.W., Ritchey J. R., DeSilva U., Stein D.R., Geisert R.D., White F.J. Effects of Aberrant Estrogen on the Endometrial Transcriptional Profile in Pigs. *Reproductive Toxicology* 2012 34:8-15.
 22. Yang C.X., Du Z.Q., Wright E.C., Prather R.S., Rothschild M.F., **Ross J.W.** 2012 Small RNA Profile of Cumulus Oocyte Complex and Early Embryos by Deep Sequencing in the Pig. *Biology of Reproduction* 87:117.
 23. Yang C.X., Wright E.C., **Ross J.W.** 2012 Expression of RNA binding proteins DND1 and FXR1 in the porcine ovary and during oocyte maturation and early embryo development. *Molecular Reproduction and Development* 79:541-52
 24. Pearce, S.C., Mani, V., Boddicker, R.L., Johnson, J.S., Weber, T.E., **Ross, J.W.**, Baumgard, L.H., Gabler, N.K. 2013 Heat stress reduces barrier function and alters

- intestinal metabolism in growing pigs. *Journal of Animal Science* 90 Supplement 4:257-259.
25. Du Z.Q., Yang C.X., Rothschild M.F., **Ross J.W.** 2013 Novel microRNA Families Expanded in the Human Genome. *BMC Genomics* 14:98.
 26. Pearce S.C., Gabler, N.K., **Ross, J.W.**, Escobar, J., Patience, J.F., Rhoads, R.P., Baumgard, L.H. 2013 The effects of heat stress and plane of nutrition on metabolism in growing pigs. *Journal of Animal Science* 91:2108-2118.
 27. Nteeba, J., Perfield, J.W., **Ross, J.W.**, Keating, A.F. 2013 High fat diet induced obesity alters ovarian phosphatidylinositol-3 kinase signaling gene expression. *Reproductive Toxicology* 42: 68-77.
 28. Pearce, S.C., Mani, V., Boddicker, R.L., Johnson, J.S., Weber, T.E., **Ross, J.W.**, Rhoads, R., Baumgard, L.H., Gabler, N.K. 2013 Heat stress reduces intestinal barrier integrity and favors intestinal glucose transport in growing pigs. *PLOS One* 8: e70215.
 29. Johnson, J.S., Boddicker, R.L., Sanz-Fernandez, V., **Ross, J.W.**, Selsby, J.T., Lucy, M.C., Safranski, T.S., Rhoads, R., Baumgard, L.H. 2013 Effects of mammalian in-utero heat stress on adolescent body temperature. *International Journal of Hyperthermia* 29: 696-702.
 30. Hollinger, K., Yang, C.X., Nonneman, D., **Ross, J.W.**, Selsby, J.T. 2014 Dystrophin insufficiency causes selective muscle injury and loss of dystrophin-glycoprotein complex assembly in pig skeletal muscle. *FASEB Journal* 28:1600-1609.
 31. Du Z.Q., Eisley, C.J., Onteru, S.K., Madsen, O., Groenen, M.A.M., **Ross J.W.**, Rothschild M.F. 2014 Identification of species-specific novel transcripts in pig reproductive tissues using RNA-seq. *Animal Genetics* 45:198-204.
 32. Gu T., Zhu, M.J., Schroyen, M., Qu, L., Nettleton D., Kuhar, D., Lunney, J.K., **Ross J.W.**, Zhao, S.H., Tuggle, C.K. 2014 Endometrial gene expression profiling in pregnant Meishan and Yorkshire pigs during peri-implantation. *BMC Genomics* 15:156.
 33. Rosado, S., Johnson, T., Pearce S.C., Gardan-Salmon, D., Gabler, N.K., **Ross, J.W.**, Rhoads R.P., Baumgard L.H., Lonergan, S., Selsby, J.T. 2014 Heat stress causes oxidative stress but not inflammatory signaling in porcine skeletal muscle. *Temperature* 1:1-9.
 34. Fortunato, M.J., Ball, C.E., Hollinger, K., Patel, N.B., Modi, J.N., Rajasekaran, V., Nonneman, D.N., Ross, J.W., Kennedy, E.J., Selsby, J.T., Beedle, A.M. 2014 Development of rabbit monoclonal antibodies for detection of alpha-dystroglycan in normal and dystrophic tissue. *PLOS One* 9:e97567.
 35. Boddicker, R.L., Siebert, J.T., Johnson, J.S., Pearce, S.C., Selsby, J.T., Gabler, N.K., Lucy, M.C., Safranski, T.J., Rhoads, R.P., Baumgard, L.H., **Ross, J.W.** 2014 Gestational heat stress alters postnatal offspring body composition indices and metabolic parameters in pigs. *PLOS One* 9:e110859.
 36. Johnson, J.S., Sanz-Fernandez, M.V., Patience, J.F., Ross, J.W., Gabler, N.K., Lucy M.C., Safranski, T.J., Rhoads, R.P., Baumgard, L.H. 2015 Effects of in utero heat stress on postnatal body composition in pigs: I. Growing Phase. *Journal of Animal Science*; 93:71-81.
 37. Johnson, J.S., Sanz-Fernandez, M.V., Gutierrez, N.A., Patience, J.F., Ross, J.W., Gabler, N.K., Lucy M.C., Safranski, T.J., Rhoads, R.P., Baumgard, L.H. 2015 Effects of in utero heat

- stress on postnatal body composition in pigs: II. Finishing Phase. *Journal of Animal Science*; 93:82-92.
38. Sanz Fernandez, M.V., Johnson, J.S., Abuajamieh, M., Stoakes, S.K., Seibert, J.T., Cox, L., Kahl, S., Elsasser, T.H., **Ross, J.W.**, Isom, S.C., Rhoads, R.P., Baumgard, L.H.. 2015. Effects of heat stress on carbohydrate and lipid metabolism in pigs. *Physiological Reports*; 3: e12315.
 39. Nteeba, J., Sanz-Fernandez, M.V., Rhoads, R.P., Baumgard, L.H., **Ross J.W.**, Keating, A.F. 2015 Heat stress alters ovarian insulin mediated phosphatidylinositol-3 kinase and steroidogenic signaling in gilt ovaries. *Biology of Reproduction*; 92:148.
 40. Cruzen, S.M., Boddicker, R.L., Graves, K., Johnson, T.P., Arkfeld, E.K., Baumgard, L.H., Ross, J.W., Safranski, T.J., Lucy, M.C., Lonergan, S.M. 2015 Carcass composition of market weight pigs subjected to heat stress in utero and during finishing. *Journal of Animal Science*; 93:2587-2596.
 41. Zhao, J., Xu, W., **Ross, J. W.**, Walters, E.M., Butler, S.P., Whyte, J.J., Kelso, L., Fatemi, M., Vanderslice, N.C., Giroux, K., Spate, L.D., Samuel, M.S., Murphy, C.N., Wells, K., Prather, R.S., Masiello, N., Velandar, W.H. 2015 Tissue engineering of the mammary gland to produce abundant hemophilia B therapy in milk. *Scientific Reports* 5:14176.
 42. Waide, E.H., Dekkers, J.C.M., **Ross, J.W.**, Rowland, R.R.R., Wyatt, C.R., Ewen, C.L., Thekkoot, D.M. Boddicker, N.J., Tuggle, C.K. 2015. Not all SCID pigs are created equally: Two independent mutations in the *Artemis* gene cause Severe Combined Immune Deficiency (SCID) in pigs. *Journal of Immunology* 195:3171-3179.
 43. Johnson, J.S., M. Abuajamieh, M.V. Sanz Fernandez, J.T. Seibert, S.K. Stoakes, A.F. Keating, **J.W. Ross**, J.T. Selsby, R.P. Rhoads, and L.H. Baumgard. 2015 The impact of in utero heat stress and nutrient restriction on progeny body composition. *Journal of Thermal Biology*; 53; 143-150.
 44. Wang W, Lee, S.J., Scott, P.A., Lu, X., Emery, D., Liu Y, Ezashi T., Roberts, M.R., **Ross J.W.**, Kaplan, H.J., Dean, D.C. 2016. Two-Step reactivation of dormant cones in retinitis pigmentosa. *Cell Reports* 15:372-385. PMID:2705017
 45. Boddicker, R.L., Koltjes, J.E., Fritz-Waters, E.R., Koesterke, L., Weeks, N., Yin, T., Mani, V., Nettleton, D., Reecy, J.M., Baumgard, L.H., Spencer, J.D., Gabler, N.K., **Ross, J.W.** 2016 Genome-Wide Methylation Profile Following Prenatal and Postnatal Dietary n-3 Fatty Acid Supplementation in Pigs. *Animal Genetics* 47:658-671.
 46. Selsby, J.T., Ballmann, C.G., Spaulding, H.R., Ross, J.W., Quindry, J.C. 2016. Oral quercetin administration transiently protects respiratory function in dystrophin deficient mice. *Journal of Physiology* 594:6037-6053.
 47. Wright, E.C., Hale, B.J., Yang, C.X., Njoka, J.G., Ross, J.W. 2016 MicroRNA-21 and PDCD4 expression during *in vitro* oocyte maturation in pigs. *Reproductive Biology and Endocrinology* 14:21.
 48. Scott, P.A., Fernandez de Castro, J.P., DeMarco P.J., Ross, J.W., Njoka, J.G., Walters, E., Prather, R.S., McCall, M.A., Kaplan, H.J. 2017 Progression of Pro23His Retinopathy in a Miniature Swine Model of Retinitis Pigmentosa. *Translational Vision Science and Technology* 6:4. PMID 28316877.

49. Brownstein, A.J., Summers, C., Ganesan, S., Pearce, S., Hale, B.J., Ross, J.W., Gabler, N.K., Rhoads, R.P., Baumgard, L.H., Selsby, J.T. 2017. Prolonged heat stress causes dysfunctional autophagy in oxidative skeletal muscle. *Physiological Reports* 5: e13317. PMID: 28646096
50. Powell, E.J., Graham, J., Ellinwood, N.M., Hostetter, J., Yaeger, M., Ho, S., Gault, L., Norlin, V., Snella, E.N., Jens, J., Waide E.H., Boettcher, A., Kerrigan, M., Rowland, R.R.R., Ross, J.W., Dekkers, J.C.M., Tuggle, C.K. 2017 Cases of T-cell lymphoma and leukemia in Severe Combined Immunodeficiency (SCID) pigs following bone marrow transplantation. *Frontiers in Immunology* 8:813. PMID: 28747915.
51. Hale, B.J., Hager, C.L., Seibert, J.T., Selsby, J.T., Baumgard, L.H., Keating, A.F., Ross, J.W. 2017 Heat Stress Induces Autophagy in Pig Ovaries during Follicular Development. *Biology of Reproduction* 97:429-437. PMID: 29025092.
52. Chapel, N.M., Byrd, C.J., Lugar, D.W., Morello, G.M., Baumgard, L.H., Ross, J.W., Safranski, T.J., Lucy, M.C., Johnson, J.S. 2017 *In utero* heat stress increases postnatal fasting heat production in growing pigs. *Journal of Animal Science* 95:3914-3921. PMID: 28992016.
53. Burnight, E.R., Gupta, M., Wiley, L.A., Anfinson, K.R., Tran, A., Triboulet, R., Hoffman, J.M., Klaahsen, D.L., Adorf, J.L., Jiao, C., Sohn, E.H., Adur, M.K., Ross, J.W., Mullins, R.F., Daley, G.Q., Schlaeger, T.M., Stone, E.M., Tucker, B.A. 2017 Using CRISPR-Cas9 to Generate Gene-Corrected Autologous iPSCs for the Treatment of Inherited Retinal Degeneration. *Molecular Therapy* 25:1999-2013. PMID: 28619647.
54. Powell, E.J., Charley, S., Boettcher, A., Varley, L., Brown, J., Schroyen, M., Adur, M.K., Dekkers, S., Isaacson, D., Sauer, M., Cunnick, J., Ellinwood, N.M., **Ross, J.W.**, Dekkers, J.C.M., Tuggle, C.K. 2018. Creating Effective BioContainment Facilities and Maintenance Protocols for Raising Specific Pathogen Free, Severe Combined ImmunoDeficient (SCID) Swine. *Laboratory Animals* 1:23677217750691 PMID: 29325489.
55. Seibert J.T., Abuajamieh M., Sanz Fernandez M.V., Johnson J.S., Kvidera S.K., Horst E.A., Mayorga E.J., Lei S., Patience J.F., **Ross J.W.**, Rhoads R.P., Johnson R.C., Lonergan S.M., Perfield J.W. 2nd, Baumgard L.H. 2018. Effects of heat stress and insulin sensitizers on pig adipose tissue. *Journal of Animal Science* 2018 96:510-520. PMID: 29385474.
56. Seelenbinder K.M., Zhao, L.D., Hanigan M.D., Hulver, M.W., McMillan, R.P., Baumgard, L.H., Selsby, J.T., **Ross, J.W.**, Gabler, N.K., Rhoads, R.P. 2018. Effects of Heat Stress During Porcine Reproductive and Respiratory Syndrome Virus Infection on Metabolic Responses in Growing Pigs. *Journal of Animal Science*. 2018 96:1375-1387. PMID: 29474563.
57. Seibert, J.T., Graves, K.L., Hale, B.J., Keating, A.F., Baumgard, L.H., Ross, J.W. 2018. Characterizing the acute heat stress response in gilts: I. Thermoregulatory and production variables. *Journal of Animal Science* 96:941-949. PMID: 2961763.
58. Graves, K.L., Seibert, J.T., Keating, A.F., Baumgard, L.H., Ross, J.W. 2018. Characterizing the acute heat stress response in gilts: II. Assessing repeatability and association with fertility. *Journal of Animal Science* 96:2419-2426. PMID: 29788126.
59. Kim, K.S., Seibert, J.T., Edea, Z., Graves, K.L., Kim, E.-S. Keating, A.F., Baumgard, L.H., Ross, J.W. Rothschild, M.F. 2018. Characterizing the acute heat stress response in gilts: III. Identification of underlying genomic control. *Journal of Animal Science* 96:2074-2085. PMID: 29669012.

60. Dickson, M., Hager, C.L., Al-Shaibi, A., Thomas, P., Baumgard, L.H., Ross J.W., Keating, A.F. 2018 Impact of Heat Stress during the Follicular Phase on Porcine Ovarian Steroidogenic and Phosphatidylinositol-3 Signaling. *Journal of Animal Science* 96:2162-2174. PMID: 29684161.
61. Bidne K.L., Kvidera, S.S., **Ross, J.W.**, Baumgard, L.H., Keating, A.F. 2018 Impact of repeated lipopolysaccharide administration on ovarian signaling during the follicular phase of the estrous cycle in post-pubertal pigs. *Journal of Animal Science* 10.1093/jas/sky226. [Epub ahead of print]. PMID: 29982469.
62. Abuajamieh, M., Kvidera, S.K., Mayorga, E.J., Kaiser, A., Lei, S.M., Seibert, J.T., Horst, E.A., Sanz Fernandez, M.V., **Ross, J.W.**, Selsby, J.T., Keating, A.F., Rhoads, R.P., Baumgard, L.H. 2018 The effect of recovery from heat stress on circulating bioenergetics and inflammatory biomarkers. *Journal of Animal Science* 96:4599-4610. PMID: 30476152
63. Zhao, L., McMillan, R., Xie, G., Giridhar, S., Baumgard, L.H., El-Kadi, S., Selsby, J.T., **Ross, J.W.**, Gabler, N.K., Hulver, M., Rhoads, R. 2018. *Am J Physiol Regul Integr Comp Physiol*; 315:R1096-R1106 doi: 10.1152/ajpregu.00404.2017. PMID: 30256682.
64. Mayorga EJ, Kvidera SK, Horst EA, Al-Qaisi M, Dickson MJ, Seibert JT, Lei S, Keating AF, **Ross JW**, Rhoads RP, Rambo ZJ, Wilson ME, Baumgard LH. 2019 Effects of zinc amino acid complex on biomarkers of gut integrity and metabolism during and following heat stress or feed restriction in pigs. *Journal of Animal Science* 96:4173-4185. PMID: 30256966.
65. Boettcher AN, Kiupel M, Adur MK, Cocco E, Santin AD, Bellone S, Charley SE, Blanco-Fernandez B, Risinger JI, Ross JW, Tuggle CK, Shapiro EM. Human Ovarian Cancer Tumor Formation in Severe Combined Immunodeficient (SCID) Pigs. *Front Oncol*. 2019 Jan 22;9:9. doi: 10.3389/fonc.2019.00009. eCollection 2019. PMID: 30723704.
66. Mayorga EJ, Kvidera SK, Seibert JT, Horst EA, Abuajamieh M, Al-Qaisi M, Lei S, Ross JW, Johnson CD, Kremer B, Ochoa L, Rhoads RP, Baumgard LH. 2019. Effects of dietary chromium propionate on growth performance, metabolism, and immune biomarkers in heat-stressed finishing pigs1. *J Anim Sci*. 97:1185-1197. doi: 10.1093/jas/sky484. PMID: 30590717
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68. Hines EA, Romoser MR, Kiefer ZE, Keating AF, Baumgard LH, Niemi J, Haberl B, Williams NH, Kerr BJ, Touchette KJ, Ross JW. 2019. The impact of dietary supplementation of arginine during gestation in a commercial swine herd: II. Offspring performance. *J Anim Sci*. 97:3626-3635. doi: 10.1093/jas/skz214.
69. Ramirez, B.C., Xin, H., Halbur, P.G., Beermann, D.H., Hansen, S.L., Linhares, D.C.L., Peschel, J.M., Rademacher, C.J., Reecy, J.M., Ross, J.W., Shepherd, T.A., Koltjes, J.E. 2019. At the intersection of industry, academia, and government: How do we facilitate productive precision livestock farming in practice? *Animals (Basel)* 9(9). pii: E635. doi: 10.3390/ani9090635.
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71. Seibert, J.T., Adur, M.K., Schultz, R.B., Thomas, P.Q., Kiefer, Z.K., Keating, A.F., Baumgard, L.H., Ross, J.W. 2019. Differentiating between the effects of heat stress and

- lipopolysaccharide on the porcine ovarian heat shock protein response. *J Anim Sci.* 97:4965-4973. doi: 10.1093/jas/skz343. PMID: 31782954.
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38. Yang C., Wright E.M., Scanlon R., Selman B., Prather R.S., **Ross J.W.** 2010 Expression of microRNAs and RNA-binding protein DND1 during oocyte maturation and early embryonic development in the pig. 43rd Annual Meeting Society for the Study of Reproduction, Milwaukee, Wisconsin, July 30-August 3.
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51. Boddicker, R.L., Koltes, J.E., Fritz, E.R., Mani, V., Reecy, J.M., Baumgard, L.H., Gabler, N.K., **Ross, J.W.** 2012 Prenatal and Postnatal Dietary n-3 Fatty Acid Supplementation Alters Buffy Coat DNA Methylation Profile in Pigs. Plant and Animal Genome XIX Conference. San Diego, CA, January 14-18.
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54. Johnson, J.S., Boddicker, R., Pearce, S., Sanz-Fernandez, V., Lucy, M., Safranski, T., Gabler, N., Rhoads, R., **Ross, J.W.**, Patience, J., Lonergan, S., Baumgard, L., and Selsby, J.T. 2012 Gestational thermal environment alters postnatal response to heat stress. Experimental Biology. San Diego, CA, April 21-25.
55. Ben-Shlomo, G. **Ross J.W.** 2012 Evaluation of the dark adaptation curve of the pig. Association for Research in Vision and Ophthalmology. Fort Lauderdale, FL. May 1-5.
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57. Pearce, S.C., Boddicker, R.L., Mani, V., Johnson, J.S., Weber, T.E., **Ross, J.W.**, Baumgard, L.H., Gabler, N.K. 2012 Heat stress reduces barrier function and alters intestinal metabolism in growing pigs. 12th International Digestive Physiology of Pigs Symposium. Keystone, CO, May 29th-June 1st.
58. Selsby, J.T., Yang, C.X., Hollinger, K., **Ross, J.W.**, Nonneman, D. 2012 Initial characterization of a novel porcine model of Becker muscular dystrophy. New Directions in Skeletal Muscle Biology Conference. New Orleans, LA. June 17-21.
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61. Sanz-Fernandez, M.V., Boddicker R.L., **Ross, J.W.**, Rhoads, R.P., Baumgard, L.H. 2012 Effects of heat stress on insulin production in β -TC-6 pancreatic cells. American Society of Animal Science Annual Meeting. Phoenix, AZ, July 15-19.
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63. Lucy, M.C., Safranski, T.J., Rhoades, J.N., **Ross, J.W.**, Gabler, N.K., Rhoads, R.P., Baumgard, L.H. 2012 Effect of heat stress (HS) on thermal regulation during pregnancy in first parity sows. American Society of Animal Science Annual Meeting. Phoenix, AZ, July 15-19.
64. Lucy, M.C., Safranski, T.J., Rhoades, J.N., **Ross, J.W.**, Gabler, N.K., Rhoads, R.P., Baumgard, L.H. 2012 Litter characteristics and thermoregulatory behavior of first parity sows exposed to a controlled heat stress (HS) during gestation. American Society of Animal Science Annual Meeting. Phoenix, AZ, July 15-19.
65. Nteeba, J., Ullerich, E.E., Pearce, S.C., Boddicker, R., **Ross, J.W.**, Baumgard, L.H., Keating, A.F. 2012 Effect of heat stress on phosphatidylinositol-3 kinase signaling in gilt ovaries. American Society of Animal Science Annual Meeting. Phoenix, AZ, July 15-19.
66. Tuggle, C.K., Gong, G., Huang, T., **Ross, J.W.** 2012 Duplication and divergence of expression and function of the IL1B gene in the pig genome. Symposium on Functional Genomics of Early Development of Livestock - Banff, Alberta, Canada July 24-26.

67. Yang, C.X., Wright, E.C., Hale, B., Keating, A.F., **Ross J.W.** 2012 FOXO3 Expression and Localization During Pig Oocyte Meiosis Maturation and Embryo Early Development. 45th Annual Meeting Society for the Study of Reproduction, State College, Pennsylvania, August 12-15.
68. Mordhorst, B.R., Wright, E.C., Yang, C.X., **Ross J.W.** 2012 Microvesicles Isolated from Follicular Fluid Impact In Vitro Maturation of Pig Oocytes. 45th Annual Meeting Society for the Study of Reproduction, State College, Pennsylvania, August 12-15.
69. Wright, E.C., Yang, C.X., Mordhorst, B.R., Boddicker, R.L., Baumgard, L.H., Keating, A.F., **Ross J.W.** 2012 FOXO3 and AP1 Expression in Pre-Pubertal Pig Ovaries During Follicle Development. 45th Annual Meeting Society for the Study of Reproduction, State College, Pennsylvania, August 12-15.
70. Graves, K.L., Mordhorst, B., Oldfather, N., Wright, E.C., Hale, B., Boddicker, R.L., Keating, A.F., **Ross J.W.** 2012. Identification of measures predictive of age at first puberty. Allen D. Lemans Swine Conference. St. Paul, MN, September 15-18.
71. Waide, E.H., C.K. Tuggle, N.M. Ellinwood, **J.W. Ross**, N. Boddicker, D.M. Thekkoot, J.M. Young, E. Snella, C.-S. Ho, R.R.R. Rowland, C.R. Wyatt, J.C.M. Dekkers. 2012 Bone marrow allotransplantation rescues severe combined immunodeficiency phenotype in pigs. International Porcine Reproductive and Respiratory Syndrome Symposium. Kansas City, MO, November 29-30.
72. Boddicker, R.L., Koltjes, J.E., Fritz, E.R., Yin, T., Mani, V., Reecy, J.M., Nettleton, D., Baumgard, L.H., Gabler, N.K., **Ross, J.W.** 2013 Genome-Wide Methylation Profile and Methylation-Associated SNP Analysis Following Prenatal and Postnatal Dietary n-3 Fatty Acid Supplementation in Pigs. Plant and Animal Genome XIX Conference. San Diego, CA, January 12-16.
73. Rosado Montilla, S.I., Pearce, S.C., Gardan-Salmon, D., Gabler, N.K., Ross, J.W., Rhoads, R.P., Baumgard, L.H., Lonergan, S.M., Selsby, J.T. 2013 The effect of heat stress on inflammatory signaling in porcine skeletal muscle. American Society of Animal Science Midwest Section Meeting. Des Moines, IA. March 11-13.
74. Yang, C.X., Wright, E.C., Du, Z.Q., Hale, B., Rothschild, M.F., Ross, J.W. 2013 Small RNA expression and function during oocyte maturation and embryo development in the pig. American Society of Animal Science Midwest Section Meeting. Des Moines, IA. March 11-13.
75. Johnson, J.S., **Ross, J.W.**, Selsby, J.T., Boddicker, R.L., Lucy M.C., Safranski T.J., Rhoads R.P., Baumgard L.H. 2013 Effects of *in-utero* heat stress on post-natal thermoregulation. Experimental Biology Annual Meeting. Boston, MA. April 18-22.
76. Rosado, S., Johnson, T., Pearce S.C., Gardan-Salmon, D., Gabler, N.K., **Ross, J.W.**, Rhoads R.P., Baumgard L.H., Lonergan, S., Selsby, J.T. 2013. Heat stress triggers an antioxidant response in porcine skeletal muscle. Experimental Biology Annual Meeting. Boston, MA. April 18-22.
77. Hollinger, K., Yang, C.X., **Ross, J.W.**, Rohrer G.A., Nonneman, D., Selsby, J.T. Dystrophin insufficiency causes a Becker muscular dystrophy-like phenotype in swine. Experimental Biology Annual Meeting. Boston, MA. April 18-22.
78. T. J. Safranski, J. N. Rhoades, D. H. Keisler, **J. W. Ross**, N. K. Gabler, R. P. Rhoads, L. H. Baumgard, and M. C. Lucy. 2013 Metabolic and hormonal profile of first parity sows exposed to controlled heat stress during gestation. 9th International Conference on Pig Reproduction. Olsztyn, Poland, June 9-12th.

79. F.J. White and **J.W. Ross**. 2013 Chemokine Ligands 9, 10, and 11 during Successful and Endocrine Disrupted Pregnancy in the Porcine Uterus. 9th International Conference on Pig Reproduction. Olsztyn, Poland, June 9-12th.
80. Johnson, J.S., Sanz-Fernandez, M.V., Stoakes, S.K., Abuajamieh, M., Ross, J.W., Lucy, M.C., Safranski, T.J., Rhoads, R.P., Baumgard, L.H. 2013 Gestational heat stress alters postnatal thermoregulation. American Society of Animal Science Annual Meeting. Indianapolis, Indiana July 8-12.
81. Graves, K.L., Mordhorst, B., Oldfather, N., Wright, E.C., Hale, B., Boddicker, R.L., Keating, A.F., **Ross J.W.** 2013 Identification of measures predictive of puberty onset. 46th Annual Meeting Society for the Study of Reproduction, Montreal, Quebec July 22-25.
82. Yang, C.X., Du, Z.Q., Boddicker, R.L., Wright, E.C., Baumgard, L.H., Rothschild, M.F., **Ross, J.W.** 2013 Utilization of RIP-seq to identify pig cumulus-oocyte-complex RNA bound by dead end homolog 1. 46th Annual Meeting Society for the Study of Reproduction, Montreal, Quebec July 22-25.
83. Hale, B., Yang, C.X., Johnson, T., **Ross, J.W.** 2013 Biogenesis of microRNA-21 in relation to germinal vesicle breakdown in the porcine oocyte. 46th Annual Meeting Society for the Study of Reproduction, Montreal, Quebec July 22-25.
84. Seibert, J.T., Boddicker, R.L., Koltjes, J.E., Reecy, J., Nettleton, D., Lucy, M.C., Safranski, T.J., Rhoads, R.P., Gabler, N.K., Baumgard, L.H., **Ross, J.W.** 2014 Alterations in transcriptional profile as the result of prenatal HS exposure in pigs. Plant and Animal Genome XXII Conference. San Diego, CA, January 11-15.
85. Powell, E., Cunnick, J., Waide, E., Schroyen, M., Goldman, F.D., **Ross, J.W.**, Ellinwood, N.M., Snella, E., Esch, K., Dekkers, J.C.M., Tuggle, C.K. 2014 Toward humanization of the pig; boldly going where only mice have gone before. Plant and Animal Genome XXII Conference. San Diego, CA, January 11-15.
86. Waide, E.H., Tuggle, C.K., Ellinwood, N.M., **Ross, J.W.**, Dekkers, J.C.M. 2014 Not all SCID pigs are created equally: two natural mutations cause Severe Combined Immuno Deficiency (SCID) in pigs. Plant and Animal Genome XXII Conference. San Diego, CA, January 11-15.
87. Johnson, J.S., Sanz-Fernandez, M.V., Patience, J.F., Ross, J.W., Gabler, N.K., Lucy, M.C., Safranski, T.J., Rhoads, R.P., Baumgard, L.H. 2014 *In utero* heat stress alters body composition during the early finishing phase (60 to 80 kg) in pigs. American Society of Animal Science Midwest Section Meeting. Des Moines, IA. March 17-19.
88. Johnson, J.S., Sanz-Fernandez, M.V., Patience, J.F., **Ross, J.W.**, Gabler, N.K., Lucy, M.C., Safranski, T.J., Rhoads, R.P., Baumgard, L.H. 2014 Effects of *in utero* heat stress and core body temperature on tissue accretion during the growing phase (30 to 60 kg) in pigs. American Society of Animal Science Midwest Section Meeting. Des Moines, IA. March 17-19.
89. Selsby, J.T., Kaiser, A., **Ross, J.W.**, Nonneman, D.J., Johnson, A.K., Stalder, K.J. Dystrophin insufficiency causes locomotor dysfunction in a swine model of dystrophinopathy. 2014 New Directions in Skeletal Muscle Biology Conference. Chicago, IL. June 29-July 2.
90. Scott, P.A., Fernandez de Castro, J.P., DeMarco P.J., Ross, J.W., Walters, E., Prather, R.S., McCall, M.A., Kaplan, H.J. 2014 Pro-23-His transgenic miniature swine exhibit functional and morphological characteristics similar to humans with autosomal dominant retinitis pigmentosa. 2014 Swine Biomedical Research Conference. Raleigh, NC, July 6th-8th.
91. Izquierdo-Rico MJ, **Ross JW**, Soriano-Úbeda C, Hernández-Caravaca I, Viera L, Matas C, García-Vázquez FA. 2014 Prostaglandin PGJ2 added to artificial insemination sperm dosage

- reduces the expression of the inflammatory genes in sow uterus. World Congress of Reproductive Biology. September 2-4.
92. Baumgard, L.H., **Ross, J.W.**, Gabler, N.K., Lonergan, S.M., Keating, A.F., Selsby, J.T., Rhoads R.P. Metabolic and health consequences of heat stress: Knowledge gaps and opportunities. 2014 American Society of Animal Science Annual Meeting. Kansas City, Missouri July 20-24.
 93. Hale, B.J., Yang, C.X., Wright, E.C., **Ross J.W.** Small RNA expression and function during oocyte maturation and embryo development in the pig. 2014 American Society of Animal Science Annual Meeting. Kansas City, Missouri July 20-24.
 94. Johnson, JS, Abuajamieh, M., Sanz-Fernandez, M.V., Seibert, J.T., Stoakes, S.K., Keating, A.F., **Ross, J.W.**, Selsby, J.T., Rhoads, R.P., Baumgard, L.H. The impact of *in utero* heat stress and nutrient restriction on progeny body composition. 2014 American Society of Animal Science Annual Meeting. Kansas City, Missouri July 20-24.
 95. Sanz-Fernandez, M.V., Johnson, JS., Seibert, J.T., Boddicker, R.L., Cox, L., Isom, S.C., **Ross, J.W.**, Rhoads, R.P., Baumgard, L.H. 2014 Effects of heat stress on the transcriptional profile of peripheral tissues in growing pigs. American Society of Animal Science Annual Meeting. Kansas City, Missouri July 20-24.
 96. Hale, B.J., Johnson, T.P., **Ross, J.W.** 2014 Characterization of microRNA-21 regulation during porcine oocyte maturation. 47th Annual Meeting Society for the Study of Reproduction, Grand Rapids, Michigan July 19-23.
 97. Beedle, A.M., Ball, C.E., Hollinger, K., Patel, N.B., Modi, J.N., Rajasekaran, V., Nonneman, D.J., **Ross, J.W.**, Kennedy, E.J., Selsby, J.T., Fortunato, M.F. 2014 Rabbit monoclonal antibodies for the detection of alpha-dystroglycan core protein. New Directions in Biology and Disease of Skeletal Muscle Conference, Chicago, IL. June 29-July 2.
 98. Boddicker, R.L., Koltes, J.E., Fritz, Johnson, J., Seibert, J.T., Reecy, J.M., Nettleton, D., Lucy, M.C., Safranski, T.J., Selsby, J.T., Rhoads, R.P., Gabler, N.K., Baumgard, L.H., **Ross, J.W.** 2015 Alterations in body composition and transcriptional profile as the result of prenatal HS exposure in pigs. Plant and Animal Genome XXIII Conference. San Diego, CA, January 10-14.
 99. Kim, K.S., Kim, E.S., Seibert, J.T., Kim, K.S., Ross, J.W., Baumgard, L.H., Keating, A.F., Rothschild, M.F. 2015 Genome-wide association analyses of biological responses to heat stress in pigs. Plant and Animal Genome XXIII Conference. San Diego, CA, January 10-14.
 100. Seibert, J.T., Abuajamieh, M., Sanz Fernandez, M.V., Johnson, J.S., Lei, S., Stoakes, S.K., Patience, J.F., **Ross, J.W.**, Rhoads, R.P., Lonergan, S.M., Baumgard, L.H. 2015 Effects of heat stress on adipose tissue fatty acid composition and moisture content in pigs. American Society of Animal Science Midwest Section Meeting. Des Moines, IA. March 15-18.
 101. Wiegert, J.G., Preisser, R.H., Lucy, M.C., Safranski T.J., Rhoads, R.P., **Ross, J.W.**, Baumgard, L.H., Estienne, M.J., Rhoads, M.L. 2015 Trans-generational effects of in utero heat stress on subsequent lactational performance of gilts and performance of offspring. American Society of Animal Science Midwest Section Meeting. Des Moines, IA. March 15-18.
 102. Lucy M.C., Safranski, T.J., Rhoades, J.N., Keisler, D.H., Ross, J.W., Gabler, N.K., Rhoads, R.P., Baumgard, L.H. 2015 Serum insulin-like growth factor-I (IGF1), growth hormone (GH), insulin, and glucose in first parity sows exposed to heat stress (HS) during gestation. American Society of Animal Science Midwest Section Meeting. Des Moines, IA. March 15-18.
 103. Zhao, L., McMillan, R.P., Xie, G., Zhang, Z., Baumgard, L.H., Selsby, J.T., **Ross, J.W.**, Gabler, N., Hulver, M., Rhoads, R.P. 2015 Effect of heat stress on porcine skeletal muscle metabolism. Experimental Biology Annual Meeting. Boston, MA. March 28-April 1.

104. Abuajamieh, M., Laughlin, E.J., Lei, S.M., Stoakes, S.K., Mayorga, E.J., Seibert, J.T., Nolan, E.A., Sanz Fernandez, M.V., Ross, J.W., Selsby, J. T., Rhoads, R.P., Baumgard, L. H. 2015 The Effects of Recovery Time from Heat Stress on Circulating Bioenergetics Variables and Biomarkers of Leaky Gut. *Experimental Biology*. Boston, MA. March 28-April 1.
105. Hale, B., Hager, C., Baumgard, L.H., Keating, A.F., Ross, J.W. 2015 Heat Stress Induces Autophagy in Pig Ovaries during Follicular Development. 47th Annual Meeting Society for the Study of Reproduction, San Juan, Puerto Rico. June 18-22.
106. Kvidera, S.K., E.A. Horst, E.J. Laughlin, E.J. Mayorga, J.T. Seibert, M. Abuajamieh, M. Al-Qaisi, S. Lei, A.F. Keating, J.W. Ross, and L.H. Baumgard. 2016. Effects of Repeated Lipopolysaccharide Infusion on Hematologic, Metabolic, and Intestinal Histology Parameters. *FASEB J*. 30:925.14.
107. Seibert, J.T., K.L. Graves, T. Johnson, A.F. Keating, L.H. Baumgard, J.W. Ross. 2016. Reproducibility of Heat Stress Susceptibility and Future Reproductive Success during Heat Stress in Pigs. *ADSA-ASAS 2016 Midwest Meeting*. Iowa Events Center, March 15, Des Moines, Iowa.
108. Hale, B.J., Hager, C.L., Al-Shaibi, A., Baumgard, L.H., Keating, A.F., Ross, J.W. 2016. Heat stress induces autophagy in pig ovaries during follicular development. *ADSA-ASAS 2016 Midwest Meeting*. Iowa Events Center, March 15, Des Moines, Iowa.
109. Hines, E. A., Seibert, J.T., Stoakes, S., Graves, K., Hale, B., Abuajamieh, M., Hager, C., Rademacher, C., Keating, A.F., Baumgard, L.H., and Ross, J.W. 2016. Evaluation of physiological indicators of heat stress and their association with seasonal infertility in first parity sows. *ADSA-ASAS 2016 Midwest Meeting*. Iowa Events Center, March 15, Des Moines, Iowa.
110. Al-Shaibi, A., Hale, B.J., Hager, C.J., Ross, J.W., Baumgard, L.H., Keating, A.F. 2016. Impact of cyclical heat stress during follicular development on ovarian TLR4, PI3K and steroidogenic proteins in synchronized post-pubertal gilts. *ADSA-ASAS 2016 Midwest Meeting*. Iowa Events Center, March 15, Des Moines, Iowa.
111. Brownstein, A., C. Summers, S. Ganesan, B. Hale, S. Pearce, N. Gabler, J.W. Ross, R.P. Rhoads, L.H. Baumgard and J.T. Selsby. 2016. Heat stress causes autophagic stalling in oxidative skeletal muscle. *FASEB J*. 30:1290.15
112. Hale, B.J., Hager, C.L., Baumgard, L.H., Keating, A.F., Ross, J.W. 2016 Heat Stress Induces Anti-Apoptotic Signaling in the Ovary through BCL-2 Family Proteins. 49th Annual Meeting Society for the Study of Reproduction, San Diego, CA. July 16-20.
113. M.J. Dickson, J. Nteeba, S.K. Kvidera, L.H. Baumgard, J.W. Ross, A.F. Keating. 2016. Alterations in porcine ovarian signaling induced by metabolic endotoxemia. 49th Annual Meeting Society for the Study of Reproduction, San Diego, CA. July 16-20.
114. L.H. Baumgard, J.T. Seibert, S.K. Kvidera, A.F. Keating, J.W. Ross, and R.P. Rhoads. 2016. Production, biological, and genetic responses to heat stress in ruminants and pigs. *J. Anim. Sci.* 94 (E-Suppl. 5):401.
115. M. J. Dickson, K.L. Bidne, B.J. Hale, C.L. Hager, J.T. Seibert, L.H. Baumgard, J.W. Ross, A.F. Keating. 2016. Impact of heat stress and metabolic endotoxemia on porcine ovarian function. *J. Anim. Sci.* 94 (E-Suppl. 5):1043.
116. S.K. Kvidera, E.A. Horst, E.J. Mayorga, J.T. Seibert, M.A. Al-Qaisi, J.W. Ross, R.P. Rhoads, and L.H. Baumgard. 2016. Effect of supplemental citrulline on thermal and production parameters during heat stress in growing pigs. *J. Anim. Sci.* 94 (E-Suppl. 5):995.
117. M. Abuajamieh, S.K. Kvidera, E.A. Horst, E.J. Mayorga, J.T. Seibert, J.S. Johnson, J.W. Ross, M.A. Al-Qaisi, P.J. Gorden, J. DeFrain, R.P. Rhoads, and L.H. Baumgard. 2016. The effects

- of zinc amino acid complex on biomarkers of gut integrity and metabolism in heat-stressed steers. *J. Dairy Sci.* 99 (E-Suppl. 1):1175.
118. E.A. Horst, S.K. Kvidera, M. Abuajamieh, E.J. Mayorga, M.A. Al-Qaisi, H.B. Green, K.M. Schoenberg, W.E. Trout, and L.H. Baumgard. 2016. The effects of ketosis, feed restriction, and an endotoxin challenge on circulating serotonin (5-HT) in lactating dairy cows. *J. Dairy Sci.* 99 (E-Suppl. 1):1103.
 119. K.L. Bidne, M.J. Dickson, S.K. Kvidera, L.H. Baumgard, J.W. Ross, and A.F. Keating. 2016. Lipopolysaccharide exposure in swine alters ovarian toll-like receptor 4 expression. *J. Anim. Sci.* 94 (E-Suppl. 5):1090.
 120. E.A. Hines, J.T. Seibert, M. Abuajamieh, K. Graves, C. Hager, B. Hale, S. Stoakes, C. Rademacher, A.F. Keating, L.H. Baumgard, and J.W. Ross. 2016 Heat Stress and Association with Seasonal Infertility in Sows. Allen D. Lemman Conference, St. Paul, MN. September 19.
 121. Romoser, M.R., Hale, B., Seibert, J., Bidne, K., Dickson, M., Gall, T., Baumgard, L.H. Keating, A.F., Ross, J.W. Assessment of methods for accurate reproductive tract scoring by vulva width as a tool for gilt selection. 2017 American Society of Animal Science Midwest Section Meeting. Omaha, NE.
 122. Mackenzie J Dickson, Jackson Nteeba, Katie L. Bidne, Ben J. Hale, Candice L. Hager, Sara K. Kvidera, Jacob T. Seibert, Lance H. Baumgard, Jason W. Ross, Aileen F. Keating. Characterizing the effects of acute and chronic heat stress on porcine ovarian function. 2017 American Society of Animal Science Midwest Section Meeting. Omaha, NE.
 123. Baumgard, L.H., S.K. Kvidera, E.A. Horst, M.J. Dickson, J.A. Ydstie, C.S. Shouse, E.J. Mayorga, M. Al-Qaisi, S. Lei, K.L. Bidne, J.T. Seibert, B.J. Hall, A. F. Keating, J.W. Ross, J.T. Selsby and R.P. Rhoads. 2017. Consequences of leaky gut on the immune system, metabolism, physiology and animal performance. The American Dairy Science Association Annual Meeting. June, 25-28, Pittsburgh, PA.
 124. Hines, E.A., Romoser, M., Keating, A.F., Baumgard, L.H., Niemi, J., Haberl, B., Kerr, B., Touchette, K., Ross, J.W. 2017. Effect of maternal arginine supplementation on offspring performance of pigs in a commercial production environment. Workshop Meeting: "Importance of nutrition and environment on birth weight, muscle growth, health and survival of the neonate workshop meeting". Animal and Grassland Research and Innovation Centre, Moorepark, Fermoy Co. Cork, Ireland. May 4-5.
 125. Baumgard, L.H., Kvidera, S.K., Horst, E.A., Dickson, M.J., Ydstie, J.A., Shouse, C.S., Mayorga, E.J., Al-Qaisi, M., Lei, S., Bidne, K.L., Seibert, J.T., Hall, B.J., Keating, A.F., Ross, J.W., Selsby, J.T., Rhoads, R.P. 2017. Consequences of leaky gut on the immune system, metabolism, physiology and animal performance. American Society of Dairy Science annual meeting.
 126. Li Y., Adur, M, Wang, W., Hale, B.J., Wierson W., Essner, J., Tuggle, C.K., Ross, J.W. 2018 Effect of injection timing on CRISPR/Cas9 Mediated Gene Modification Efficiency in Parthenogenetically Activated and In Vitro Fertilization Derived Porcine Embryos. 50th Annual Meeting Society for the Study of Reproduction, Washington, D.C. July 13-16.
 127. Hale, B.J., Li Y., Adur, M.K., Ross, J.W. Inhibition of Germinal Vesicle Breakdown Using IBMX Increases MicroRNA-21 in the Porcine Oocyte. 50th Annual Meeting Society for the Study of Reproduction, Washington, D.C. July 13-16.
 128. Hines, E.A., Romoser, M., Keating, A.F., Baumgard, L.H., Niemi, J., Williams, N.H., Haberl, B., Kerr, B., Touchette, K.T., Ross, J.W. 2017. Supplementation of arginine does not

- improve gilt reproductive performance under commercial conditions. 50th Annual Meeting Society for the Study of Reproduction, Washington, D.C. July 13-16.
129. Baumgard, L.H., E.A. Horst, E.J. Mayorga, M. Al-Qaisi, C.S. Shouse, S.K. Kvidera, S. Lei, J.T. Seibert, H.A. Ramirez-Ramirez, J. A. D. R. N. Appuhamy, A.F. Keating, J.W. Ross, J.T. Selsby and R.P. Rhoads. 2018 Heat Stress, Consequences of Gut Barrier Dysfunction. American Society of Animal Science Midwest Section Meeting. Omaha, NE. *J. Anim. Sci.* 96 (Suppl. 2). 217-218.
 130. Li, Y., Adur, M.K., Boettcher, A.N., Schultz, R.B., Kiefer, Z.E., Wang, W., Loving, C., Tuggle, C.K., Ross, J.W. 2018 Generation of IL2RG^{-Y} ART^{-/-} double knockout piglets using CRISPR/Cas9. The Large Animal Genetic Engineering Summit. Park City, UT. June 3-6.
 131. Seibert, J.T., Adur, M.K., Thomas, P.Q., Keating, A.F., Baumgard, L.H., Ross, J.W. 2018 The effects of heat stress or lipopolysaccharide exposure on ovarian heat shock protein expression in pigs. 51st Annual Meeting Society for the Study of Reproduction, New Orleans, LA. July 10-13.
 132. Schultz, R.B., Bidne, K.L., Romoser, M.R., Adur, M.K., Seibert, J.T., Baumgard, L.H., Keating, A.F., Ross, J.W. 2018 Effect of heat stress on corpus luteum function and expression of microRNA during early pregnancy in pigs. 51st Annual Meeting Society for the Study of Reproduction, New Orleans, LA. July 10-13.
 133. Li, Y., Adur, M.K., Keating, A.F., Ross, J.W. 2018 Influence of MicroRNA inhibition on pig oocyte maturation and embryo development. 51st Annual Meeting Society for the Study of Reproduction, New Orleans, LA. July 10-13.
 134. Li, Y., Adur, M.K., Schultz, R.B., Wang, W., Tuggle, C.K., Ross, J.W. 2018 The effect of Artemis on CRISPR/Cas9 induced DNA repair during in vitro fibroblast transfection and embryo microinjection. 51st Annual Meeting Society for the Study of Reproduction, New Orleans, LA. July 10-13.
 135. Adur, M.K., Romoser, M.R., Bidne, K.L., Seibert, J.T., Hines, E.A., Keating, A.F., Baumgard, L.H., Ross, J.W. 2018 Effect of increased ambient temperature on porcine endometrial heat stress response during the peri-implantation phase. 51st Annual Meeting Society for the Study of Reproduction, New Orleans, LA. July 10-13.
 136. Corredor, F.A., Leach, R., Ross, J.W., Keating, A.F., Seroo, N.V.L. 2018 Genetic and genomic analysis of vulva size in Landrace and Yorkshire gilts. American Society of Animal Science Midwest Section Meeting. Vancouver, Canada. July 8-12.
 137. Chipman, A.C., Rademacher, C.J., Johnson, C., Stalder, K., Johnson, A., Keating, A.F., Patience, J.F., Gabler, N.K., Linhares, D., Schwartz, K., Millman, S., Studer, J., Kiefer, Z., Schmitz-Esser, S., Silva, G., Ross, J.W. 2018. Pelvic Organ Prolapse: An industry-wide collaboration to identify putative contributing factors. St. Paul, MN, September 15-18.
 138. Corredor, F.A., Sanglard, L.P., Ross, J.W., Keating, A.F., Seroo, N.L. 2019. Phenotypic and genomic relationships between vulva score and reproductive performance in first-parity sows. American Society of Animal Science Midwest Section Meeting. Omaha, NE. March 11-13.
 139. Ella E Akin, Anna K Johnson, Cassandra Jass, Jason W Ross, Suzanne T Millman, John Stinn, Kenneth J Stalder, PSII-13 Providing on-farm handling tools to move grow-finish pig cadavers, *Journal of Animal Science*, Volume 97, Issue Supplement_2, July 2019, Page 232. <https://doi.org/10.1093/jas/skz122.408>
 140. Kiefer, Z.E., Chipman, A.L., Studer, J.M., Koester, L.R., Showman, L., Keating, A.F., Schmitz-Esser, S., Ross, J.W. 2019. Identification of putative factors associated with pelvic organ

- prolapse in sows during late gestation. 52nd Annual Meeting Society for the Study of Reproduction, San Jose, CA. July 18-21.
141. Studer, J.M., Kiefer, Z.E., Keating, A.F., Baumgard, L.H., Olsen, K.M., Rambo, Z., Wilson, M.E., Rapp, C., Ross, J.W. 2019. Investigating the impact of manganese supplementation on corpus luteum function. 52nd Annual Meeting Society for the Study of Reproduction, San Jose, CA. July 18-21.
 142. Adur, M.K., Romoser, M.R., Bidne, K.L., Schultz, R.B., Keating, A.F., Baumgard, L.H., Ross, J.W. 2019 Proteomic assessment of the intra-uterine secretome during the peri-implantation phase to understand effects of increased ambient temperature on the porcine heat stress response. 52nd Annual Meeting Society for the Study of Reproduction, San Jose, CA. July 18-21.
 143. Schultz, R.B., Bidne, K.L., Romoser, M.R., Adur, M.K., Baumgard, L.H., Keating A.F., Ross, J.W. 2019. Effect of heat stress on the corpus luteum proteome during early pregnancy establishment in pigs. 52nd Annual Meeting Society for the Study of Reproduction, San Jose, CA. July 18-21.
 144. Ross, J.W., Hale, B.J., Seibert, J.T., Adur, M.K., Keating, A.F., Baumgard, L.H. 2019. Physiological mechanisms through which heat stress compromises reproduction in pigs. 52nd Annual Meeting Society for the Study of Reproduction, San Jose, CA. July 18-21.
 145. Adur, M.K., Kaiser, A., Sathe, S.R., Liu, H., Charley, S., Li, Yunsheng, L., Tuggle, C.K., Ross, J.W. 2019. Delayed sperm production in a presumed Sertoli cell only syndrome case in two boars affected by Severe Combined Immunodeficiency. Society for Theriogenology Annual Conference. Savannah, GA. July 24-27.
 146. Garcia, A., A. Johnson, M. Calvo-Lorenzo, J. Ross, E. Akin, K. Stalder, J. McGlone, and S. Millman. 2019. Sick and injured (compromised) pigs on-farm. Pig Welfare Symposium. Minneapolis, Minnesota. November 13-15.
 147. Akin, E., A. Johnson, J. Brown, C. Jass, H. Kittrell, S. Millman, J. Ross, K. Skoland, K. Stalder, J. Stinn, and L. Karriker. 2019. Providing handling tools to move non-ambulatory pigs on-farm. 53rd Congress of the International Society of Applied Ethology (ISAE).
 148. Baumgard, L.H., R.P. Rhoads, J.W. Ross, A.F. Keating, N.K. Gabler and J.T. Selsby. 2019. The intestinal, metabolic, inflammatory and production responses to heat stress. 70th Annual Meeting of the European Federation of Animal Science (EAAP), Ghent Belgium. Pp. 259.
 149. Rishi, J.K., Roach, C.M., Baumgard, L.H., Ross, J.W., Keating, A.F. 2020. Impact of heat stress on ovarian chemical biotransformation enzyme abundance. 59th Annual Meeting and ToxEpo of the Society of Toxicology. Anaheim, CA, March 15-19.
 150. Yan, Y., Baumgard, L.H., Ross, J.W., Greiner, L. 2020. A post-partum glucocorticoid may reduce inflammation and improve sow lactation performance. American Association of Swine Veterinarians Annual Meeting. Atlanta, GA. March 7-10.

Non-Peer Reviewed Publications

1. Boddicker, R.L., Koltes, J.E., Fritz, E.R., Mani, V., Reecy, J.M., Baumgard, L.H., Gabler, N.K., **Ross, J.W.** 2012 Prenatal and Postnatal Dietary n-3 Fatty Acid Supplementation Alters Buffy Coat DNA Methylation Profile in Pigs. Iowa State University Department of Animal Science Industry Report.
2. Wright, E.C., Yang, C.X., Tuggle, C.K., **Ross, J.W.** 2012 Heat stress during pig oocyte in vitro maturation impacts embryonic development and gene expression. Iowa State University Department of Animal Science Industry Report.

3. Yang, C.X., Gardan-Salmon, D., Selsby J.T., **Ross, J.W.** 2012 Utility and efficiency of homologous recombination for introducing targeted modifications to the pig genome. Iowa State University Department of Animal Science Industry Report.
4. Yang, C.X., Wright E.C., **Ross, J.W.** 2012 DND1 expression and function in the porcine ovary, oocyte and embryo. Iowa State University Department of Animal Science Industry Report.
5. Nteeba, J., Baumgard, L.H., **Ross, J.W.**, Keating, A.F. 2012 Effects of heat stress on ovarian physiology in growing pigs. Iowa State University Department of Animal Science Industry Report.
6. Johnson, J., Boddicker, R., Sanz-Fernandez, V., **Ross, J.W.**, Baumgard, L., and Selsby, J.T. 2012 Gestational thermal environment alters postnatal response to heat stress. Iowa State University Department of Animal Science Industry Report.
7. Yang, C.X., Hale, B., Keating, A.F., Ross, J.W. 2013 FOXO3 expression and function in the pig oocyte and embryo. Iowa State University Department of Animal Science Industry Report.
8. Waide, E., Tuggle, C.K., Ellinwood, N.M., Ross, J.W., Boddicker, N., Thekkoot, D., Young, J., Snella, E., Ho, S., Rowland R., Wyatt, C., Hui, H., Dekkers J. 2013 Discovery and use of a natural mutation that results in Severe Combined Immuno Deficiency in Pigs. Iowa State University Department of Animal Science Industry Report.
9. Nteeba, J., Pearce, S.C., Boddicker R.L., Ross, J.W., Baumgard, L.H., Keating A.F. 2013 Effects of chronic heat stress on ovarian steroidogenesis pathway members in gilts. Iowa State University Department of Animal Science Industry Report.
10. Hale, B., Yang, C.X., Ross, J.W. 2013 Expression of RNA Binding Protein DND1 in the Porcine Uterus during the Estrous Cycle and Early Pregnancy. Iowa State University Department of Animal Science Industry Report.
11. Graves, K.L., Mordhorst B., Oldfather N., Wright E.C., Hale, B., Keating, A.F., Stalder, K., Ross, J.W. 2013 Identification of Measures Predictive of Age at First Puberty. Iowa State University Department of Animal Science Industry Report.
12. Kaiser, A., Johnson, A., Ross, J.W., Selsby, J.T., Stalder, K. 2014 Positive reinforcement training piglets to stand in a container and follow a human. Iowa State University Department of Animal Science Industry Report.
13. Cruzen, S., Boddicker, R., Johnson, T., Arkfeld, E., Ross, J.W., Lonergan, S., Safranski, T., Lucy, M. 2014 Carcass Composition of Market Weight Pigs Subjected to Heat Stress *in utero* or during Growth. Iowa State University Department of Animal Science Industry Report.
14. Akin, E, Ross, J, Stalder, K, Millman, S, Jass, C, Stinn, J, Johnson, A. Movement Ease for Grow-Finish Pig Cadavers On Farm using a Sked, Deer Sled, and Modified Deer Sled. 2019. Iowa State University Department of Animal Science Industry Report.
15. Akin, E, Ross, J, Stalder, K, Millman, S, Jass, C, Stinn, J, Johnson, A. Employee Survey to Determine Movement Ease for Grow-Finish Pig Cadavers On Farm using a Sked, Deer Sled, and Modified Deer Sled. 2019. Iowa State University Department of Animal Science Industry Report.
16. Akin, E., E., A. K. Johnson, J. W. Ross, S. T. Millman, K. J. Stalder, C. D. Jass, and J. P. Stinn. 2019. Handling tools to move non-ambulatory pigs that comply with the Common Swine Industry Audit. Pork Information Gateway. PIG 05-02-02. <http://porkgateway.org/resource/handling-tools-move-non-ambulatory-pigs-comply-common-swine-industry-audit/>

Published Proceedings

1. Ross, J.W., Selsby, J.T., Nonneman, D.J. 2013 Genetic Modification of Pigs: Expanding their Utility as Biomedical Models. National Breeders Roundtable Annual Conference. St. Louis, MO.
2. Johnson, J.S., M. Abuajamieh, M.V. Sanz-Fernandez, J.T. Seibert, S.K. Stoakes, J.W. Ross, J.T. Selsby, N.K. Gabler, H. Xin, M.C. Lucy, T.J. Safranski, R.P. Rhoads, and L.H. Baumgard. 2013. Heat stress alters energy metabolism during pre- and postnatal development. XXIII International Reunion on Production of Meat and Milk in Hot Climates. Mexicali, Mexico. Pp. 38-50.
3. Johnson A.K., Ross, J.W., Azarpajouh, S., Millman, S.T. 2016. Iowa Swine Welfare School: Tier One - On farm euthanasia for producers. James D. McKean Swine Disease Conference. Ames, Iowa.
4. Chipman, A.L., Rademacher, C.J., Johnson, C.D., Stalder, K.J., Johnson, A.K., Keating, A.F., Patience, J.F., Gabler, N.K., Linhares, D., Schwartz, K.J., Millman, S.T., Studer, J.M., Kiefer, Z.E., Silva, G. Ross, J.W. 2018. Pelvic Organ Prolapse: An industry-wide collaboration to identify putative contributing factors. James D. McKean Swine Disease Conference. Ames, Iowa. November 1-2.
5. Kiefer, Z.E., Chipman, A.L., Studer, J., Johnson, C., Rademacher, C.J., Linhares, D.C.L., Ross, J.W. 2019. Update on Prolapses and Pig Survivability Initiative. James D. McKean Swine Disease Conference. Ames, Iowa. November 7-8.

Invited Presentations

1. "Conceptus and Uterine Factors Regulating Successful Pregnancy in the Pig". November 1, 2005. United States Department of Agriculture, Meat Animal Research Center, Clay Center, NE.
2. "Conceptus and Uterine Factors Contributing to Successful Pregnancy in the Pig". September 13, 2006. University of Missouri-Columbia, Animal Science Research Center, Columbia, MO.
3. "MicroRNA Regulation of Reproduction in Pigs". January 23rd, 2009. Iowa State University, College of Veterinary Medicine, VMPM/VetPath Seminar Series, Ames, IA.
4. "Factors affecting the formation of the maternal:placental interface in the pig" March 15-17, 2010. American Society of Animal Science Midwest Section Meeting. Des Moines, IA.
5. "Generation of Transgenic Animal Models". October 5th, 2010. Animal Breeding and Genetics Seminar Series, Ames, IA
6. "Genetic Modification of Pigs to Improve Agriculture and Biomedicine". September 12, 2011. Osborn Club Meeting, Ames, IA
7. "Non-coding RNA Expression and Function during Oocyte Maturation in Pigs". October 16th, 2011. IAS-ISU Ensminger Bilateral Academic Exchange on Animal Science. Institute of Animal Sciences, Chinese Academy of Agricultural Sciences. Beijing, China.

8. "Non-coding RNA Expression and Function during Oocyte Maturation in Pigs". October 18th, 2011. IAS-ISU Ensminger Bilateral Academic Exchange on Animal Science. Institute of Animal Sciences, Huazhong Agricultural University. Wuhan, China.
9. "Non-coding RNA Expression and Function during Oocyte Maturation in Pigs". October 19th, 2011. Institute of Zoology, Chinese Academy of Agricultural Sciences. Beijing, China.
10. "Non-coding RNA Expression and Function in Pig Reproductive Tissues". Swine Workshop at the Plant and Animal Genome XX Conference. San Diego, CA, January 14-18, 2012.
11. "Small RNA expression and function during oocyte maturation and embryo development in the pig". Utah State University Animal Science Department. Logan, UT, April 12, 2012.
12. "Identification of measures predictive of age at first puberty". Allen D. Lemman Swine Conference. St. Paul, MN, September 17, 2012.
13. "Genetic Modification of Pigs: How and Why". Iowa Branch of American Association for Laboratory Animal Science. Tama, IA, October 5th, 2012.
14. "Strategies for Improving Swine Reproduction". Lauren Christian Lectureship. Iowa Pork Congress. Des Moines, IA. January 24, 2013
15. "Small RNA expression and function during oocyte maturation and embryo development in the pig" American Society of Animal Science Midwest Section Meeting. Des Moines, IA. March 11-13. 2013
16. "Genetic Modification of Pigs: Expanding their Utility as Biomedical Models". National Breeders Roundtable Annual Conference. St. Louis, MO. May 1, 2013.
17. "Strategies for Improving Swine Reproduction". Swine Reproduction Conference for Iowa Swine Producers. Sheldon, IA. December 3, 2013.
18. "Strategies for Improving Swine Reproduction". Swine Reproduction Conference for Iowa Swine Producers. Waverly, IA. December 4, 2013.
19. "Small RNA expression and function during oocyte maturation and embryo development in the pig". American Society of Animal Science Annual Meeting. Kansas City, Missouri July 24, 2014.
20. "Impact of environment on swine reproduction: immediate and longer term consequences". Iowa Swine Day. Ames, IA, June 26th, 2014.
21. "Understanding the Biology of Seasonal Infertility". Allen D. Lemman Swine Conference. St. Paul, MN, September 15, 2014.

22. “Small RNA expression and function during oocyte maturation and embryo development in the pig”. American Society of Animal Science Annual Meeting. Purdue University, West Lafayette, IN. April 10, 2015.
23. “Mechanisms by which Seasonal Heat Stress Affects Pig Reproduction Efficiency”. 2nd Biannual Heat Stress Symposium. Ames, IA. April 16, 2015.
24. “Understanding the biology of seasonal infertility and pig reproduction efficiency”. Swine Reproduction Conference for Iowa Swine Producers. Le Mars, IA. June 10, 2015.
25. “Understanding the biology of seasonal infertility and pig reproduction efficiency”. Swine Reproduction Conference for Iowa Swine Producers. Waverly, IA. June 11, 2015.
26. “Understanding the biology of seasonal infertility to develop mitigation strategies for swine”. National Pork Board Webinar Series on Seasonality. Online Webinar. August 25th, 2015.
27. “Prenatal Impacts of Gestational Environment on Offspring Growth and Performance”. International Conference on Feed Efficiency in Swine. Omaha, NE. October 21, 2015.
28. “Physiological consequences of heat stress in pigs”. Australasian Pig Science Association Biennial Conference. Melbourne, Victoria, Australia. November 23rd, 2015.
29. “Strategies for improving replacement gilt selection”. United Kingdom Pig and Poultry Fair. Stratford-upon-Avon, United Kingdom. May 9th, 2016.
30. “Gestational impacts on the subsequent performance of offspring”. Workshop with swine producers and swine consultants preceding the World Pork Expo in Des Moines, IA. June 7th, 2016.
31. “Understanding the biology of seasonal infertility in swine to develop mitigation strategies”. World Pork Expo. Des Moines, IA. June 8th, 2016.
32. “Mechanisms of compromised productivity in gilts and improving strategies for replacement selection” Zinpro Feet First Symposium. Minneapolis, MN. September 8th, 2016.
33. “Mechanisms of compromised productivity in gilts and improving strategies to maximize potential” Smithfield Hog Production Quarterly Meeting for the Princeton Division. Princeton, MO. February 24th, 2017.
34. “A Sustainable Pork Industry” Iowa State University College of Agriculture and Life Sciences Sustainability Symposium. Ames, IA. April 13th, 2017.
35. “Gene Editing in Animal Agriculture” at the Innovation Advancement Workshop hosted by the Iowa BioIT Initiative. Coralville, IA. November 16th, 2017.

36. “Strategies for Improving Reproductive Performance in Gilts”. Swine Reproduction Conference for Iowa Swine Producers. Waverly, IA. December 12, 2017.
37. “Strategies for Improving Reproductive Performance in Gilts”. Swine Reproduction Conference for Iowa Swine Producers. Le Mars, IA. December 13, 2017.
38. “Strategies for Improving Reproductive Performance in Gilts”. SowBridge Online Presentation, January 4th, 2018.
39. “Pelvic Organ Prolapse”. National Pork Board Animal Science Committee. Des Moines, IA. February 14th, 2018.
40. “Understanding the basis of sow mortality and strategies to maximize productivity”. Swine Summit 2018. Morton, MN. March 21st, 2018.
41. “Understanding the basis of sow mortality and strategies to maximize productivity”. Ralco Team Meeting, Webinar. April 12th, 2018
42. “Understanding the basis of sow mortality and strategies to maximize productivity”. APC Meeting, Ankeny, IA. April 26th, 2018
43. “Pelvic Organ Prolapse: An update and next steps from 104 farms collaborating on a National Pork Board project”. Nutritionist Roundtable, Clive, IA. June 5th, 2018.
44. “Pelvic Organ Prolapse: An update and next steps from 104 farms collaborating on a National Pork Board project”. World Pork Expo, Des Moines, IA, June 6th, 2018.
45. “Pelvic Organ Prolapse: An update and next steps from 104 farms collaborating on a National Pork Board project”. 7th Annual Iowa Swine Day, Ames, IA. June 28th, 2018.
46. “Pelvic Organ Prolapse: An update and next steps from 104 farms collaborating on a National Pork Board project”. National Pork Industry Conference, Wisconsin Dells, WI. July 9th, 2018.
47. “Mechanisms of microRNA regulation impacting oocyte and early embryo development in the pig”. Agriculture and Food Research Initiative Principal Investigator Meeting. New Orleans, LA. July 10th, 2018.
48. “Pelvic Organ Prolapse: An update and next steps from 104 farms collaborating on a National Pork Board project”. National Pork Board Animal Science Committee. Chicago, IL. July 27th, 2018.
49. “Pelvic Organ Prolapse: An industry-wide collaboration to identify putative contributing factors.” Allen D. Leman Swine Conference. Minneapolis, MN. September 18th, 2018.

50. "Pelvic Organ Prolapse: An industry-wide collaboration to identify putative contributing factors and a review of Smithfield's data." Arranged meeting with Smithfield Hog Production Headquarters. Wallace, North Carolina, October 22nd, 2018.
51. "Pelvic Organ Prolapse: An industry-wide collaboration to identify putative contributing factors" Standard Nutrition Conference. Omaha, NE. October 24th, 2018.
52. "Pelvic Organ Prolapse: An industry-wide collaboration to identify putative contributing factors." Iowa State University James D. McKean Swine Disease Conference. Ames, IA. November 2nd, 2018.
53. "Pelvic Organ Prolapse: An industry-wide collaboration to identify putative contributing factors." National Swine Improvement Federation Annual Conference, Nashville, TN. November 30th, 2018
54. "An integrated approach to improve whole herd pig survivability" National Swine Improvement Federation Annual Conference, Nashville, TN. November 30th, 2018.
55. "Understanding Sow health Challenges in today's production systems" American Feed Industry Association High Performance Sow Symposium at the International Production and Processing Expo. Atlanta, GA. February 13th, 2019.
56. "Physiological Mechanisms through which heat stress compromises Reproduction in Pigs" Midwest American Association of Animal Science Meeting. Omaha, NE. March 12th, 2019.
57. "Understanding Health Challenges in today's production systems: An industry-wide collaboration to identify putative contributing factors" SowBridge Producer Webinar, April 3rd, 2019.
58. "An industry-wide approach to better understand the putative causes of pelvic organ prolapse in sows" Zoetis Producer Meeting, Naples, FL. June 20th, 2019.
59. "Physiological mechanisms through which heat stress compromises reproduction in pigs" 52nd Annual Meeting for the Society for the Study of Reproduction. San Jose, CA. July 22nd, 2019.
60. "An integrated approach to improve whole herd pig survivability. National Pork Board Webex Webinar, August 27th, 2019.
61. "An industry-wide approach to better understand the putative causes of pelvic organ prolapse in sows". Zoetis Technical Service Team Webinar, September 20th, 2019.
62. "Current efforts towards improving pig livability." Allen D. Leman Swine Conference. Minneapolis, MN. September 16th, 2019.
63. "An industry-wide approach to better understand the putative causes of pelvic organ prolapse in sows" Medicated Feed Additive Expert Council. Des Moines, IA. October 22nd, 2019.

64. “An industry-wide approach to better understand the putative causes of pelvic organ prolapse in sows” North Carolina Veterinary Medical Association Swine Veterinary Conference. Raleigh, NC, November 1st, 2019.
65. “An update on prolapses and the pig survivability initiative”. Iowa State University James D. McKean Swine Disease Conference. Ames, IA, November 8th, 2019.
66. “Update on Prolapses and Pig Survivability Initiative” Online Webinar for the Nutriquest Technical Team. December 4th, 2019.
67. “Strategies for Improving Reproductive Performance in Gilts”. American Association of Swine Veterinarians Annual Meeting. Atlanta, GA. March 8th, 2020.
68. “An industry-wide approach to better understand pelvic organ prolapse in sows”. American Association of Swine Veterinarians Annual Meeting. Atlanta, GA. March 8th, 2020.

Popular Press, Extension, Outreach Publications

1. Does floor space allowance during rearing impact future reproduction? Mark J. Estienne, Stuart R. Callahan, Jason W. Ross. National Hog Farmer, April 17, 2015. (Part of a Blueprint series on Sow Productive Lifetime).
2. Iowa Pork Industry Center leads effort to address pelvic organ prolapses. Chris Rademacher, Amanda Chipman, Jason W. Ross. National Hog Farmer, April 03, 2018.
3. Blythe Schulz and Jason W. Ross. Here’s a genome editing and CRISPR-Cas9 primer. National Hog Farmer Article. <https://www.nationalhogfarmer.com/animal-health/here-s-genome-editing-and-crispr-cas9-primer>. April, 2019.
4. Ella E. Akin, Anna K. Johnson, Jason W. Ross, Kenneth J. Stalder, S. T. Millman, C. D. Jass, and J. Stinn. “Providing humane on-farm handling tools to move non-ambulatory grow-finish pigs”. Published by National Hog Farmer, November 2019.
5. Akin, E., A. K. Johnson, J. W. Ross, K. J. Stalder, S. T. Millman, C. Jass and J. Stinn. 2020. Better options needed to handle non-ambulatory swine. PORK. January 31st 2020. Available at: <https://www.porkbusiness.com/article/better-options-needed-handle-non-ambulatory-swine>
6. AASV 2020: Understanding pelvic organ prolapse and sow longevity. Jason Ross interviewed by Sarah Mikesell. <https://thepigsite.com/articles/aasv-understanding-pelvic-organ-prolapse-and-sow-longevity>. March 24, 2020.

Digital Interviews:

1. Sow prolapse and pig survivability research progress. Jason Ross interviewed by Kevin Schulz of the National Hog Farmer. <https://www.nationalhogfarmer.com/animal-health/sow-prolapse-pig-survivability-research-progresses>. November 8, 2019.
2. Perineal scoring first clue to pelvic-organ prolapse in sow-mortality project. Jason Ross interviewed by Pig Health Today. <https://pighealthtoday.com/perineal-scoring-first-clue-to-pelvic-organ-prolapse-in-sow-mortality-project/>. April 26, 2019.
3. Researchers tackle survivability issues head-on. Jason Ross interviewed by Pig Health Today. <https://pighealthtoday.com/researchers-tackle-survivability-issues-head-on/> November 14, 2019.

PATENTS

- 1. Genetic Test and Genetic Basis for SCID in pigs. Patent No. : US 9,745,561 B2. August 29, 2017. Inventors:** Jack C. M. Dekkers, Christopher K. Tuggle Emily H. Waide, Jason W. Ross, N. Matthew Ellinwood, Martine Schroyen.
- 2. Livestock Animals with Improved Growth Performance. (Provisional). January 7, 2020.** Jason W. Ross, Ronald B. Schultz, Nicholas K. Gabler.

RESEARCH FUNDING

Forty-Six grants and contracts awarded from 2007-2020.

Career Funding as PI, Co-PI, or Co-investigator: \$19,389,752 (\$5,498,163 as PI)

TRAINING AND MENTORING

Postdoctoral Research Fellow - As Primary Mentor (n = 5)

Past Postdoctoral Trainees:

1. Dr. Caixia Yang-February, 2009- October, 2013
 - a. Area of Research: Molecular Reproductive Physiology
 - b. Current Status: Faculty member at North-east Agricultural University, Harbin, China

2. Dr. Rebecca Boddicker- June 2011- May 2013 (Co-Mentored with Dr. Lance Baumgard)
 - a. Area of Research: Epigenetics and Transcriptional Profiling
 - b. Notable Accomplishments
 - i. Submitted NIFA postdoc grant in Jan. 2012
 - ii. Recipient of Epigenetics Travel Grant to attend and present research data at the 2013 Plant and Animal Genome Conference
 - c. Current Status: Postdoc at Mayo Clinic, Rochester, MN Studying Epigenetics and Cancer

3. Dr. Josephat Njoka, June, 2014 – June 2015
 - a. Area of Research: Biomedical Animal Management

4. Dr. Yunsheng Li-May, 2016- August, 2018
 - a. Area of Research: Reproductive Biotechnology
 - b. Current Status: Faculty Position in China

Current Postdoctoral Trainees:

5. Dr. Malavika Adur-October, 2015- Present
 - a. Area of Research: Reproductive Biotechnology

Graduate Students- As Major Advisor (n = 4 Master of Science and 5 Doctor of Philosophy)

Past Graduate Students:

1. Dr. Elane Wright
 - a. Major: Animal Reproduction and Molecular, Cellular and Developmental Biology.
 - b. Degree: **Doctor of Philosophy**, Spring, 2012
 - c. Notable Accomplishments
 - i. 2011 USDA National Institute of Food and Agriculture NRI Merit Award for her abstract presented at the 2011 Society for the Study of Reproduction annual meeting.
 - ii. Submitted and was awarded a NIFA postdoc grant in Jan. 2012.
 - d. Dissertation Title: MicroRNA expression and function during porcine oocyte maturation and early embryonic development
 - e. Awards: Research Excellence Award from the ISU Graduate College
 - f. Current Status-USDA Research Technician at the USDA Meat Animal Research Center in Clay Center, NE. (Mentor- Dr. Jeremy Miles)

2. Mr. Kody Graves
 - a. Animal Science Department Teaching Assistantship
 - b. Degree: **Master of Science**, Animal Physiology

- c. Graduation Term: Summer, 2015
 - d. Thesis Title: Factors associated with puberty onset and reproductive performance of gilts
 - e. Current Employment: Graves Cattle Company
3. Mr. Ben Hale
- a. Major: Interdepartmental Genetics
 - b. Degree: **Doctor of Philosophy**, Summer, 2017
 - c. Submitted National Science Foundation GRSF grant in November, 2011.
 - d. Submitted National Institute of Food and Agriculture doctoral grant in January, 2013.
 - e. Dissertation Title: Two components of maintaining developmental competence: microRNA-21 in the maturing oocyte and autophagy induction in the follicular stage ovary
 - f. Awards: Research Excellence Award from the ISU Graduate College
 - g. Current Employment: Postdoctoral Research Fellow at Washington State with Patricia Hunt.
4. Mr. Matthew Romoser
- a. Major: Animal Physiology
 - b. Degree: **Master of Science**. Fall, 2017
 - c. Thesis Title: Strategies for improving reproductive performance in gilts
 - d. Awards: Teaching Excellence Award from the ISU Graduate College
 - e. Current Employment: Fast Genetics
5. Ms. Elisabeth Hines
- a. Major: Animal Science
 - b. Degree: **Doctor of Philosophy**. Summer, 2018
 - c. Thesis Title: The effects of maternal and production environment on offspring development and swine production efficiency
 - d. Current Employment: Assistant Professor in Animal Science at Penn State
6. Mr. Jacob Seibert
- a. Major: Molecular, Cellular and Developmental Biology
 - b. Co-Mentored with Dr. Lance Baumgard
 - c. Degree: **Doctor of Philosophy**. Fall, 2018
 - d. Awards: Research Excellence Award from the ISU Graduate College
 - e. Current Employment: Postdoctoral Fellow at the University of Minnesota

Current Graduate Students:

7. Mr. Blythe Schulz
- a. Major: Interdepartmental Genetics.
 - b. Degree: **Doctor of Philosophy**.
 - c. Current lab member
8. Ms. Zoe Kiefer
- a. Major: Animal Physiology

- b. Degree: **Master of Science**
 - c. Current lab member
9. Ms. Jamie Studer
- a. Major: Animal Physiology
 - b. Degree: **Master of Science**
 - c. Current lab member

Graduate Students- As Committee Member

1. Mr. Josephat Njoka
 - a. Major Advisor: Dr. Peter Hoffman
 - b. Degree: **Master of Science** in Interdepartmental Graduate Studies
 - c. Graduation Term: Spring, 2011
2. Ms. Jaculyn Green
 - a. Major Advisor: Dr. Mike Persia
 - b. Degree: **Master of Science** in Animal Science
 - c. Graduation Term: Summer, 2011
3. Ms. Amanda Harris
 - a. Major Advisor: Dr. Nicholas Gabler
 - b. Degree: **Master of Science** in Animal Physiology
 - c. Graduation Term: Fall, 2012
4. Mr. Matt Kenny
 - a. Major Advisor: Dr. Warren Franke
 - b. Degree: **Master of Science** in Kinesiology
 - c. Defended Thesis: August 21, 2013
5. Ms. Jill Madden
 - a. Major Advisor: Dr. Aileen Keating
 - b. Degree: **Doctor of Philosophy** in Genetics
 - c. Graduation Term: Spring, 2014
6. Ms. Katrin Hollinger
 - a. Major Advisor: Dr. Joshua Selsby
 - b. Major: **Doctor of Philosophy** in Genetics
 - c. Graduation Term: Spring, 2014
7. Mr. Jay Johnson
 - a. Major Advisor: Dr. Lance Baumgard
 - b. Major: **Doctor of Philosophy** in Nutritional Science
 - c. Graduation Term: Spring, 2014
8. Mr. Jackson Nteeba
 - a. Major Advisor: Dr. Aileen Keating
 - b. Degree: **Doctor of Philosophy** in Genetics
 - c. Graduation Term: Spring, 2014
9. Mr. Josephat Njoka
 - a. Major Advisor: Dr. Peter Hoffman
 - b. Major: **Doctor of Philosophy** in Animal Science
 - c. Graduation Term: Spring, 2014
10. Ms. Shanti Ganesan

- a. Major Advisor: Dr. Aileen Keating
 - b. Degree: **Doctor of Philosophy** in Toxicology
 - c. Graduation Term: Fall, 2014
11. Mr. Daniel Mathew
- a. Major Advisor: Dr. Matt Lucy, University of Missouri
 - b. Degree: **Doctor of Philosophy** in Animal Reproduction
 - c. Graduation Term: Fall, 2014
12. Dr. Tyler Dohlman, DVM
- a. Major Advisor: Dr. Patrick Gunn
 - b. Degree: **Master of Science** in Animal Physiology
 - c. Graduation Term: Spring, 2015
13. Ms. Jessica Colpoys
- a. Major Advisor: Dr. Anna Johnson
 - b. Degree: **Doctor of Philosophy** in Animal Physiology
 - c. Graduation Term: Fall, 2015
14. Mr. Dongsuk Kim
- a. Major Advisor: Dr. Anumantha Kanthasamy
 - b. Degree: **Doctor of Philosophy** in Molecular, Cellular and Developmental Biology
 - c. Graduation Term: Spring, 2016
15. Ms. Porsha Thomas
- a. Major Advisor: Dr. Aileen Keating
 - b. Degree: **Master of Science** in Toxicology
 - c. Graduation Term: Spring, 2016
16. Mr. Ahmad Al-Shaibi
- a. Major Advisor-Dr. Aileen Keating
 - b. Degree: **Master of Science** in Genetics
 - c. Graduation Term: Spring, 2016
17. Ms. Alexandra Brownstein
- a. Major Advisor-Dr. Joshua Selsby
 - b. Degree: **Master of Science** in Genetics
 - c. Graduation Term: Spring, 2016
18. Mr. José Bruno Del Rio-Malewski
- a. Major Advisor: Dr. Ravindra Singh
 - b. Degree: **Master of Science** in Genetics
 - c. Graduation Term: Summer, 2016
19. Ms. Monica Langley
- a. Major Advisor- Dr. Anumantha Kanthasamy
 - b. Degree: **Doctor of Philosophy** in Toxicology
 - c. Graduation Term: Spring, 2017
20. Ms. Mackenzie Dickson
- a. Major Advisor-Dr. Aileen Keating
 - b. Degree: **Master of Science** in Animal Physiology
 - c. Graduation Term: Spring, 2017
21. Ms. Sarah Weiland
- a. Major Advisor-Dr. John Patience
 - b. Degree: **Master of Science** in Animal Science

- c. Graduation Term: Spring, 2017
- 22. Ms. Edith Mayorga-Lozano
 - a. Major Advisor-Dr. Lance Baumgard
 - b. Degree: **Master of Science** in Animal Science
 - c. Graduation Term: Summer, 2017
- 23. Ms. Katie Bidne
 - a. Major Advisor-Dr. Aileen Keating
 - b. Degree: **Master of Science** in Animal Physiology
 - c. Graduation Term: Summer, 2017
- 24. Ms. Ellis Powell
 - a. Major Advisor- Dr. Chris Tuggle
 - b. Degree: **Doctor of Philosophy** in Genetics
 - c. Graduation Term: Summer, 2017
- 25. Ms. Qingyun Li
 - a. Major Advisor: Dr. John Patience
 - b. Degree: **Doctor of Philosophy** in Animal Science
 - c. Graduation Term: In Progress
- 26. Ms. Hannah Spaulding
 - a. Major Advisor: Dr. Josh Selsby
 - b. Degree: **Doctor of Philosophy** in Molecular, Cellular and Developmental Biology
 - c. Graduation Term: In Progress
- 27. Mr. Wesley Wierson
 - a. Major Advisor- Dr. Jeffrey Essner
 - b. Degree: **Doctor of Philosophy** in Molecular, Cellular and Developmental Biology
 - c. Graduation Term: In Progress
- 28. Mr. Jordan Welker
 - a. Major Advisor- Dr. Jeffrey Essner
 - b. Degree: **Doctor of Philosophy** in Genetics
 - c. Graduation Term: In Progress
- 29. Cayla Iske
 - a. Major Advisor: Dr. Cheryl Morris
 - b. Degree: **Doctor of Philosophy** in Animal Science
 - c. Graduation Term: In Progress
- 30. Mr. Jesus Acosta
 - a. Major Advisor: Dr. John Patience
 - b. Degree: **Doctor of Philosophy** in Animal Science
 - c. Graduation Term: In Progress
- 31. Analisa Biswas
 - a. Major Advisor: Dr. Geetu Tujeta
 - b. Degree: **Doctor of Philosophy** in Molecular, Cellular and Developmental Biology
 - c. Graduation Term: In Progress
- 32. Adeline Boettcher
 - a. Major Advisor: Dr. Chris Tuggle
 - b. Degree: **Doctor of Philosophy** in Molecular, Cellular and Developmental Biology
 - c. Graduation Term: In Progress
- 33. Ms. Ella Akin

- a. Major Advisor: Dr. Anna Johnson
 - b. Degree: **Master of Science** in Animal Physiology
 - c. Graduation Term: In Progress
34. Ms. Carrie McCarthy
- a. Major Advisor: Dr. Hugo Ramirez-Ramirez
 - b. Degree: **Master of Science** in Animal Science
 - c. Graduation Term: In Progress
35. Kendra Clark
- a. Major Advisor-Dr. Aileen Keating
 - b. Degree: **Doctor of Philosophy**
 - c. Graduation Term: In Progress

Undergraduate Student Research Assistants (n = 51)

Ms. Robyn Scanlon	Mr. Matt Garrick	Ms. Kelsi Young
Mr. Chris Almond	Ms. Sarah Edwards	Mr. Kenton Doty
Ms. Brittney Yehling	Ms. MarlyBob Dobyns	Ms. Alexis Patinos
Ms. Briar Tenold	Ms. Nikki Sterling	Ms. Rachel Edaburn
Ms. Zoe Kiefer	Mr. Will Crum	Mr. Nick Cullen
Ms. AJ Kramer	Ms. Christy Calderwood	Ms. Jennie Greene
Ms. Kelsey Meyer	Ms. Megan Jackson	Ms. Abbie Miller
Ms. Samantha Ehrlich	Mr. Tyler Hawbecker	Ms. Yvonne White
Mr. Cole Banta	Ms. Corrine Smolen	Ms. Kaitlyn Chantry
Ms. Sterling Schnepff	Ms. Kayla Stafford	Mr. David Seibert
Ms. Sydney Smith	Ms. Emily Gamm	Mr. Daniel Bade
Mr. Elliot Russell	Mr. Paul Bakshi	Mr. Ben Selman
Ms. Elizabeth Bialkowsky	Ms. Bethany Mordhorst	Ms. Jackie Coughenour
Ms. Stacey Geerdes	Ms. Candice Hager	Ms. Amy Turner
Ms. Ella Meyer	Ms. Megan Collison	Ms. Miranda Schmidt
Ms. Angela Lepore	Ms. Carrie Shouse	Mr. Adam Nihsen
Ms. Sarah Edwards	Ms. Natasha Hemann	Mr. Jordan Nankivil

Teaching Experience

Oklahoma State University, Stillwater, OK (Spring 2001 to Fall 2005)

Dr. Ross served as a Teaching Assistant for the following courses:

ANSI 1133	Spring 2001	Fundamentals of Food Science
ANSI 3443	Fall 2001	Animal Reproduction
ANSI 4843	Spring 2002	Applied Biotechniques in Animal Science
ANSI 3443	Fall 2002	Animal Reproduction
ANSI 4843	Spring 2003	Applied Biotechniques in Animal Science
ANSI 3543	Fall 2003	Principles of Animal Nutrition
ANSI 4613	Spring 2005	Cow-Calf Management
ANSI 3443	Fall 2005	Animal Reproduction

Lincoln University, Jefferson City, MO (Spring 2007)

AGR 422 and 422L. Domestic Reproductive Physiology. Introduction and understanding the reproductive system of domesticated farm animals and strategies to manipulate it.

- *Dr. Ross served as an adjunct professor and co-taught this course with one other adjunct professor in the spring of 2007.*

Iowa State University, Ames, IA (Fall 2008 to Present)

An S 214. Domestic Animal Physiology. (3-0) Cr. 3. F.S. *Prereq: Biol 212, Chem 163 or 177.* Introduction to anatomy and physiology of the neural, circulatory, respiratory, immune, endocrine, reproductive, and digestive systems of domestic animals.

- *Dr. Ross is a contributing instructor six lectures in Fall 2009; two lectures in each of Fall of 2008, Spring of 2009, and Spring and Fall of 2010; one lecture in Spring and Fall of 2011, 2012, 2013, 2014, 2015 and 2016. Dr. Ross's contribution to the course was comparative reproductive physiology.*

An S 332. Laboratory Methods in Animal Reproduction. (0-2) Cr. 1. F.S. *Prereq: Credit or enrollment in 331.* Comparative reproductive anatomy with emphasis on the physiology of normal reproductive function; ways to control and improve reproduction; principles of artificial insemination in farm animals; and selected laboratory exercises with written report.

- *Beginning in the Fall of 2011, Dr. Ross fulfilled a leadership role in the reorganization of this course and was the instructor of record, coordinator and primary contributor to the course for 3 semesters. Dr. Ross continues to teach one lab every semester beginning Spring, 2013.*

An S 549. Advanced Vertebrate Physiology I. (Cross-listed with NutrS, Kin). (4-0) Cr. 4. F. *Prereq: Biol 335; credit or enrollment in BBMB 404 or 420.* Neurophysiology, sensory systems, muscle, neuroendocrinology, endocrinology.

- *Dr. Ross was a contributing instructor (six lectures per semester covering reproduction) to this course in the Fall of 2008, 2009 and 2010. Beginning in 2011, the course has been offered as a four-credit course and Dr. Ross was the lead instructor and course coordinator until 2016. During 2016 and 2017 Dr. Ross contributed six hours of lecture per semester covering reproduction).*

An S 533. Physiology and Endocrinology of Animal Reproduction. (2-0) Cr. 2. Alt. S. *Prereq: General physiology course.* Development of structure and function of the reproductive system. Physiologic and endocrine aspects including puberty, gametogenesis, estrous cycle, pregnancy, parturition, interaction of environment, thyroid and adrenal function, and nutrition with these processes.

- *Dr. Ross was the instructor of record for this course. It is offered every other year and Dr. Ross last offered this course in the Spring of 2015.*

PROFESSIONAL SERVICE

Departmental Service

Formal Committees:

- Kildee Facilities Committee: 2009- Present
- Advisors Committee: 2008-2013
- Graduate Student Affairs Committee: 2009-2015
- Department Chair Search Committee: 2013-2014

Ad Hoc Committees:

1. Dr. Colin Scanes collaborator status review committee: 2010
2. Physiology Section curriculum review and assessment (co-chair): 2010-2011
3. Physiology Section committee for external advisory meeting (chair): 2010-2011
4. Graduate Curriculum committee for external advisory meeting: 2010-2011
5. Search Committee member in the hiring of Dr. Don Beermann (2014-2015)
6. Search Committee Chair in the hiring of Dr. Jen Bundy (2016)
7. Search Committee Chair in the hiring of Dr. Laura Greiner (2016-2017)

Physiology Section Leader (2014- present)

University Service

Formal Committees:

1. Animal Facilities and Services Committee- 2012 to present.
2. Laboratory Animal Resources Director Search and Screen Committee, Summer 2015
3. Associate DOGE of the Molecular Cellular and Developmental Biology Interdepartmental Graduate Program, July, 2014 through June, 2016
4. DOGE of the Molecular Cellular and Developmental Biology Interdepartmental Graduate Program, July, 2016 through June, 2018

Industry Service

Iowa State Representative for the North Central Extension Research Activity-57 multistate committee on swine reproductive physiology:

1. Secretary (2010-2011) Vice Chair (2011-2012) Chair (2012-2013)
2. Committee member for 2010 producer symposium on gilt management hosted at The Maschhoff's in Carlyle, IL.
3. Committee chair for 2012 producer symposium on AI Technology hosted at Iowa State University in Ames, IA.
4. Committee member for 2014 producer symposium hosted at the University of Nebraska in Lincoln, NE.
5. Committee member for 2016 producer symposium hosted at the University of Missouri in Columbia, MO.
6. Committee member for 2018 producer symposium hosted at the South Dakota State University in Brookings, SD.

Scientific Community Service

Editorial Responsibilities

Associate Editor for Molecular Reproduction and Development: 2009-present.

Peer Review for Journal Editorial Board

Animal Genetics: 2008, 2009, 2010, 2011, 2013

Animal: An International Journal of Animal Bioscience: 2010, 2011

Biology of Reproduction: 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2017,

BMC Genomics: 2013

Cell and Tissue Research: 2009, 2010, 2012

Domestic Animal Reproduction: 2012,

Journal of Animal Science: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017,

Journal of Biomedicine and Biotechnology: 2012

Molecular Reproduction and Development: 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017

Placenta: 2008

PLOS One: 2013

Reproduction: 2010, 2011, 2012, 2013

Theriogenology: 2012

Peer Review for Funding Agencies

1. United States Department of Defense, Army Medical Research and Materiel Command (USAMRMC): 2010
2. University of Nebraska-Lincoln, Institute of Agriculture and Natural Resources (IANR) Strategic Investments Competitive Grants Program: 2010
3. Binational Agriculture Research and Development fund (BARD): 2010
4. National Science Foundation. Ad hoc grant review assignment: 2011
5. Israel Science Foundation. Grant review assignment: 2013
6. United States Department of Agriculture. Ad hoc grant review assignment: 2015

Additional Ad Hoc Reviewing

Abstract reviewer for 8th International Ruminant Reproduction Symposium: 2010

Abstract reviewer for Midwest Animal Science Meeting: 2010, 2011, 2012

Abstract reviewer for National Animal Science Meeting: 2011, 2012, 2013

Abstract reviewer for Society for the Study of Reproduction Meeting: 2015, 2016, 2017, 2018