**Refereed Journals**

Council for Agricultural Science and Technology (CAST) [Long., J. H. Blackburn, A. Martin, F. Silversides, R. L. Taylor, Jr., and C. Youngs]. 2019. Protecting food animal gene pools for future generations—A paper in the series on The Need for Agricultural Innovation to Sustainably Feed the World by 2050. Issue Paper 65. CAST, Ames, Iowa.

Nuthalapati, N., J. D. Evans, R. L. Taylor, Jr., S. L. Branton, B. Nanduri, and G. T. Pharr. 2019. Transcriptomic analysis of early B-cell development in the chicken embryo. Poult. Sci. 98:5342-5354 https://doi.org/10.3382/ps/pez354 (published online: June 25, 2019)

Wilson, K.M., D.R. Rodrigues, W.N. Briggs, A.F. Duff, K.M. Chasser, and L.R. Bielke (2019). Evaluation of the impact of *in ovo* administered bacteria on microbiome of chicks through ten days of age. Poult Sci 98: 5949-5960

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Zhang J, Goto RM, Honaker CF, Siegel PB, Miller MM. 2019. Distribution of haplotypes within selected chicken lines suggests MHC-*Y* contributes to the genetics underlying heritable high and low antibody responses. Plant and Animal Genome Meeting XXVIII, San Diego CA, January 13-15, 2019.

Miller MM, Zhang J, Warden C, Goto RM. 2019. Progress in revealing MHC-*Y* diversity and function in fhickens. Plant and Animal Genome Meeting XXVIII, San Diego CA, January 13-15, 2019.

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A.P. Da Silva, K.A. Schat, R.A. Gallardo. Cytokine responses in tracheas from MHC congenic chicken lines with distinct susceptibilities to infectious bronchitis virus. 2019. Avian Dis. Submitted.

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S. Egaña-Labrin, R. Hauck, A. Figueroa, S. Stoute, H. L. Shivaprasad, M. Crispo, C. Corsiglia, H. Zhou, C. Kern, B. Crossley, **R. A. Gallardo.** Genotypic Characterization of Emerging Avian Reovirus Molecular Variants in California. 2019. Sci. Reports. 9:9351. https://[www.nature.com/articles/s41598-019-45494-4](http://www.nature.com/articles/s41598-019-45494-4)

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Da Silva A.P., R. Hauck, C. Kern, Y. Wang, H. Zhou, **R.A. Gallardo**. Effects of Chicken MHC Haplotype on Resistance to Distantly-Related Infectious Bronchitis Viruses. 2019. Avian Dis. 63:2, 310-317. https://[www.aaapjournals.info/doi/pdf/10.1637/11989-103118-Reg.1](http://www.aaapjournals.info/doi/pdf/10.1637/11989-103118-Reg.1)

**Book Chapters**

Hauck, R.; Bielke, L.; Yu, Z (2019). The interaction between gut microbiota and pathogens in poultry. Improving gut health in poultry Location: Burleigh Dodds Science Publishing, in print

Erf, G. F., and I. C. Le Poole. 2019. Animal Models; in: Vitiligo, 2nd edition. M. Picardo and A. Taieb, editors; Springer, SPi Global pp 205-223.

Webb, K. C., S. W. Henning, G. F. Erf, and I. C. Le Poole. 2019. Autoimmune Pathology of Vitiligo; in: Vitiligo, 2nd edition. M. Picardo and A. Taieb, editors; Springer, SPi Global pp 285-301.

**Presentations**

Chasser, K.; McGovern, K.; Duff, A.; Graham, B. et al.. (2019). Effect of select Gram-negative enteric strains on inflammation in chicks. Poultry Science Association Annual Meeting, July 2019

Duff, A.; Baxter, M.; Chasser, K.; Briggs, W. et al.. (2019). Mode of action of dexamethasone is not microbial dependent. Poultry Science Association Annual Meeting, July 2019.

Briggs, W.; Rodrigues, D.; Wilson, K.; Duff, A. et al.. (2019). Impact of intestinal pioneer colonizers on inflammation in broiler chicks at ten days of age. Poultry Science Association Annual Meeting, July 2019

Duff, A.; Searer, K.; Briggs, W.; Wilson, K. et al.. (2019). Novel subunit vaccine targeting Clostridium perfringens mucinases for control of necrotic enteritis in broilers. International Poultry Scientific Forum, February 2019

Trombetta, M.; Wilson, K.; Rodrigues, D.; Briggs, W. et al.. (2019). Enteric proteomic endocrine pathway changes to day of hatch chicks after in ovo bacterial inoculation. International Poultry Scientific Forum, February 2019

Chasser, K.; Wilson, K.; Rodrigues, D.; Briggs, W. et al.. (2019). Influence of enteric pioneer colonizers on canonical metabolic pathways in day of hatch chicks. International Poultry Scientific Forum, February 2019

Winson, E.; Rodrigues, D.; Wilson, K.; Briggs, W. et al.. (2019). Change to gut microbiome through ten days of age affected by pioneer colonizing bacteria. International Poultry Scientific Forum, February 2019

K.M. Chasser, K.M. Wilson, D. Russi-Rodrigues, W. Bottje, A.F. Duff, W.N. Briggs, and L.R. Bielke (2019) Influence of enteric pioneer colonizers on cell growth and metabolism in day of hatch chicks. International Conference on Poultry Intestinal Health, Rome, Italy, April 2019

Aylward, B., Johnson, C., Perry, F., Admasu, I., Whelan, R., and Arsenault, R. CpG injection on day 15 post-hatch leads to metabolic changes on day 16 post-hatch in modern broilers and adaptive immune responses in a heritage breed. Poultry Science Association Annual Meeting; 2019 July 15-18; Montreal, QC, Canada.

Perry, F., Johnson, C., and Arsenault, R. The role of mTOR in Salmonella invasion of macrophages. Poultry Science Association Annual Meeting; 2019 July 15-18; Montreal, QC, Canada.

Johnson, C., Neerukonda, S., Ladman, B., Aylward, B., and Arsenault, R. Low pathogenic avian influenza virus influences immune response in the digestive tract of mallard ducks. Poultry Science Association Annual Meeting; 2019 July 15-18; Montreal, QC, Canada.

Aylward, B., and Arsenault, R.J. An immunostimulatory injection on day of hatch leads to altered cellular signaling later in the grow out period in modern broiler birds. International Poultry Scientific Forum; 2019 February 11-12; Atlanta, GA

Perry, F., and Arsenault, R.J., Immunometabolic Influences of Salmonella Enteritidis and Salmonella Heidelberg in Chicken Macrophages. International Poultry Scientific Forum; 2019 February 11-12; Atlanta, GA

Van Every, H.A., Aylward, B., Arsenault, R.J., Schmidt, C.J. Integrated -Omics Analysis of Liver in the Post-hatch Broiler Chick. 7th International Symposium on Animal Functional Genomics; 2018 November 12-15; Adelaide, Australia.

Aylward, B., Johnson, C., Kogut, M., Kazemi, S., Arsenault, R. A post-biotic feed additive shows anti-inflammatory effects on immunometabolic signaling in broiler intestinal tissues. Symposium on Gut Health in Production of Food Animals; 2018 November 5-7; St. Louis, MO.

Johnson, C., Aylward, B., Whelan, R., Arsenault, R.J. Comparison of modern and heritage broiler strain’s responses to CpG using immunometabolic analysis of gut tissue. Avian Immunology Research Group Annual Meeting; 2018 September 5-7; Oxford, UK.

Johnson, C., Kogut, M.H., Arsenault, R.J. Fermentation metabolite product given in drinking water imparts an immune effect on broiler chickens. Avian Immunology Research Group Annual Meeting; 2018 September 5-7; Oxford, UK.

Chanthavixay, K., C. Kern, Y. Wang, Saelao, P., R. Gallardo, S.J. Lamont. N. Chubb, G. Rincon, Zhou, H. 2019. Differential H3K27ac peaks within bursa tissue of two inbred chicken lines under NDV infection and heat stress. 37th Conference for the International Society of Animal Genetics, Lleida, Spain.

Walugembe, M., E.N. Amuzu-Aweh, B.B. Kayang, A.P. Muhairwa, P.K. Botchway, J.R. Mushi, G. Honorati, A. Naazie, G. Aning, P. Msoffe, Y. Wang, P. Saelao, T.R. Kelly, R.A. Gallardo, H. Zhou, S.J. Lamont and J.C.M. Dekkers. 2019. Genetic Analyses of Ghana and Tanzania Local Chicken Ecotypes Challenged with Newcastle Disease Virus. Plant & Animal Genome XXVII, San Diego, CA.

Kim, T. H., C. Kern, H. Zhou. 2019. Transcription Factor IRF7 Knockout Revealed Selective Modulation of Type I Interferon Response to Avian Influenza Virus Infection in Chickens. Plant & Animal Genome XXVII, San Diego, CA.

Zhou, H. S.J. Lamont, J.C.M. Dekkers, R. Gallardo, T.R. Kelly, B.B. Kayang, A. Naazie, G. Aning, P. Msoffe and A.P. Muhairwa. 2019. Improving Food Security in Africa by Enhancing Resistance to Newcastle Disease and Heat Stress in Chickens (Genomics to Improve Poultry Innovation Lab). Plant & Animal Genome XXVII, San Diego, CA.

Wang, Y. Saelao, P., K. Chanthavixay, K. Rowland. T.R. Kelly, J.M. Dekkers, A. Wolc. R. Gallardo, S.J. Lamont. Zhou, H. 2019. Association Analysis with 600K SNP Array Identifies Candidate Genes for Heat Stress Response in Hy-Line Brown Chicks. Plant & Animal Genome XXVII, San Diego, CA.

K. Chanthavixay, C. Kern, Y. Wang, Saelao, P., R. Gallardo, S.J. Lamont. N. Chubb, G. Rincon, Zhou, H. 2019. Predicting Chromatin States to Identify Distinct Active Enhancers Within Bursa Tissue of Two Inbred Chicken Lines Under NDV Infection and Heat Stress. Plant & Animal Genome XXVII, San Diego, CA.

K. Chanthavixay, C. Kern, Y. Wang, Saelao, P., R. Gallardo, S.J. Lamont. N. Chubb, G. Rincon, Zhou, H. 2019. Differential H3K27ac peaks within bursa tissue of two inbred chicken lines under NDV infection and heat stress. Keystone conference in Transcription and RNA Regulation in Inflammation and Immunity, Lake Tahoe, CA

Kim, T. H., C. Kern, H. Zhou. 2019. Transcription Factor IRF7 Knockout Revealed Selective Modulation of Type I Interferon Response to Avian Influenza Virus Infection in Chickens. Plant & Animal Genome XXVII, San Diego, CA.

R.A. Gallardo, A.P. Da Silva, H. Zhou, C. Kern. (2018). Tracheal Immune Pathways and itsVirome in Chickens Challenged with Different IBV Genotypes. merican Veterinary Medical Association / American Association of Avian Pathologists (AVMA/AAAP) Annual Meeting,Denver, CO.

R.A. Gallardo, A.P. Da Silva, S. Egaña, S. Stoute, A. Mete, C, K. Clothier, C. Corsiglia, G. Cutler, C. Kern, H. Zhou. Coryza Outbreaks in Chickens: Persistence, Molecular and Pathogenic Characterization. (2018). American Veterinary Medical Association / American Association of Avian Pathologists (AVMA/AAAP) Annual Meeting, Denver, CO.

S. Egaña, H. Roh, H. Zhou, C. Corsiglia, B. Crossley, R.A. Gallardo. Attempts Towards a Better Classification of Avian Reovirus Variants. (2018). 67th Western Poultry Disease Conference (WPDC) Salt Lake City, UT.

R.A. Gallardo, C. Corsiglia, S. Stoute, A. Mete, A.P. Da Silva, K. Clothier, C. Kern, H. Zhou. (2018). Understanding Coryza Outbreaks, Persistence and Molecular Biology. 67th Western Poultry Disease Conference (WPDC) Salt Lake City, UT.

R. A. Gallardo, A. P. da Silva, K.A. Schat, R. Hauck, Y. Wang, H. Zhou (2018). Understanding Immune Responses Against Infectious Bronchitis Virus Challenges Using Resistant and Susceptible Chicken Lines. International Avian Respiratory Disease Conference (IARDC). Athens, GA.

Communication and control of host immunity through the gut microbiome of poultry. 2nd Microbiome Movement – Animal Health & Nutrition. St. Louis, MO. October 2019 (International meeting).

Bug on Bug Violence: Can We Manipulate the Microbiome of Poultry To Control Food Borne Disease? Microbiomes of Agricultural and Food Systems Symposium at the ASM Microbe 2019. San Francisco, CA. June 2019. (International meeting)

Animal Gut Microbiome research - When will it deliver? 6th AFBI initiated International Fall Forum. Belfast, UK. November 2018. (International meeting)

Improving Poultry Health through the Intestinal Microbiota. Poultry Medicine Seminar Series. College of Veterinary Medicine, NC State University. Raleigh NC. September 16, 2019. (Local)

Host-microbiome interactions in the bird. Trying to connect metabolites to systemic immunity. Microbiome Monthly Meetup. NC State University. Raleigh NC. April 4, 2019. (Local)

Science in a Flash: How to give a successful flash talk. ASBMB Webinar. March 4, 2019.

Pathogenesis and resistance to astrovirus infections in turkeys. AFBI Veterinary Division, Belfast, Northern Ireland, UK. November 2018. (International)

Selvaraj, R. (2018). Control of Foodborne Pathogens through Nutrition and Vaccines. In 2018 Mini Summit Safety and Quality Risk analysis in Fresh Food Chain. Shanghai Academy of Agriculture Sciences, Shanghai, P. R. China (International, Invited)

Selvaraj, R. (2018). Probiotics and salmonella; Zinc and SOD; *Salmonella* Nanoparticle vaccine; Prostate Cancer research. In NE1834 Genetic Bases for Resistance and Immunity to Avian Diseases. Morgan town, WV (Regional)

Selvaraj, R. (2018). Effect of Synbiotic Supplementation on *Salmonella* load in Birds Induced with *Salmonella*. In International Scientific Association for Probiotics and Prebiotics (ISAPP). Singapore, Singapore (International)

Selvaraj, R. (2018). Immune System of Poultry. In Boehringer Ingelheim Poultry Course (Dr. Casey was the organizer). Watkinsville, GA (International)

Selvaraj, R. (2018). Intestinal Mucosa- A new target organ to improve performance in poultry. In AVECAO 2018. Tepatiilan, Jalisco, Mexico

International, Keynote/Plenary, Invited

Selvaraj, R. (2018). *Salmonella* *enetrica* serovar Heidelberg infection on chicken T regulatory cell properties. In CRWAD 2018. Chicago, IL (National)

PAG 2019: Drechsler Y, Hawkins D: Epigenetic Mapping of the Chicken Genome: Implications for Disease Resistance and Production

PAG 2019: Drechsler Y, Hawkins D: Epigenomic Landscapes from Various Cells and Tissues of *Gallus* *gallus*

**Abstracts**

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**Thesis/Dissertation Completed:**

S.N. Neerukonda, Ph.D. Dissertation: Vaccine-induced Innate Immune Responses and Examination of Exosomes in Marek’s Disease Virus (MDV) Pathogenesis and Vaccination. August 2018.

N.A. Egan, M.S. Thesis: The role of Polycomb Repressive Complex Proteins in Marek’s Disease Virus (MDV) Latency and Lymphomagenesis. July 2018.

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Katherine Cupo. 2018. A diagnostic PCR protocol for identifying *Heterakis gallinarum* in environmental samples.

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