NE-1334 Project members who Submitted References

Version I 12/4/17 (13 entries)

Version II Revised 12/4/17 (14 entries)

Version III 12/5/17 (15 entries)

**Version IV 12/11/17** (16 entries)

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Arsenault

Beckstead

Bielke

Delany

Drechsler

Erf

Fulton

Gallardo

Koci

Lamont

Miller

Selvaraj

Song

Swaggerty

Taylor

Zhou

**218 total publications from NE-1334 Project participants 2013-2017**

**\*= 33 cooperative publications among 2 or more project participants**

\*Abernathy, J., X. Li, X. Jia, W. Chou, S. J. Lamont, R. Crooijmans, and H. Zhou, H. 2014. Copy number variation in Fayoumi and Leghorn chickens analyzed using array comparative genomic hybridization. Anim. Genet. 45:400–411.

\*Banat, G. R., S. Tkalcic, J. A. Dzielawa, M. W. Jackwood, M. D. Saggese, L. Yates, R. Kopulos, W. Briles, and E. W. Collisson. 2013. Association of the chicken MHC B haplotypes with resistance to avian coronavirus. Dev. Comp. Immunol. 39:430–437.

\*Bauer, M. M., M. M. Miller, W. E. Briles, and K. M. Reed. 2013. Genetic variation at the MHC in a population of introduced wild turkeys. Animal biotechnology 24:210-228.

\*Coble, D. J., E. E. Sandford, T. Ji, J. Abernathy, D. Fleming, H. Zhou, and S. J. Lamont. 2013. Impacts of Salmonella enteritidis infection on liver transcriptome in broilers. Genesis 51:357–364

\*Da Silva A. P., Hauck R., H. Zhou, and R. A. Gallardo. 2017. Understanding immune resistance to infectious bronchitis using major histocompatibility complex chicken lines. Avian Dis. 61(3): 358-365.

\*Dawes, M. E., L. M. Griggs, E. W. Collisson, W. E. Briles, and Y. Drechsler. 2014. Dramatic differences in the response of macrophages from B2 and B19 MHC-defined haplotypes to interferon gamma and polyinosinic:polycytidylic acid stimulation. Poultry Science 93:830–838.

\*Deist M. S., R. A. Gallardo, D. A. Bunn, T. R. Kelly, J. C. M. Dekkers, H. Zhou, and S. J. Lamont. 2017. Novel mechanisms revealed in the trachea transcriptome of resistant and susceptible chicken lines following infection with Newcastle disease virus. Clin. Vacc. Immunol. (In Press) http://cvi.asm.org/content/24/5/e00027-17.short

\*Deist M.S., R. A. Gallardo, D. A. Bunn, J. C. M. Dekkers, H. Zhou, and S. J. Lamont. 2017. Resistant and susceptible chicken lines show distinctive responses to Newcastle disease virus infection in the lung transcriptome. BMC Genomics. (In press)

\*Deist, H., R. Gallardo, D. Bunn, T. Kelly, J. Dekkers, H. Zhou, and S. Lamont. 2017. Novel mechanisms revealed in the trachea transcriptome of resistant and susceptible chicken lines following infection with Newcastle disease virus. Clin Vaccine Immunol 24(5). pii: e00027-17. doi: 10.1128/CVI.00027-17.

\*Deist, M. S., R. A. Gallardo, D. A. Bunn, T. R. Kelly, J. C. M. Dekkers, H. Zhou, and S. J. Lamont. Resistant and susceptible chicken lines show distinctive responses to Newcastle disease virus infection in the lung transcriptome. BMC Genomics. *in press*

\*Deist, M. S., R. A. Gallardo, D. A. Bunn, T. R. Kelly, J. C. M. Dekkers, H. Zhou, and S. J. Lamont. 2017. Novel mechanisms revealed in the trachea transcriptome of resistant and susceptible chicken lines following infection with Newcastle disease virus. Clin. Vaccine Immunol. 24:e00027-17. doi:10.1128/CVI.00027-17.

\*Drechsler, Y., S. Tkalcic, M. D. Saggese, H. L. Shivaprasad, D. K. Ajithdoss, and E. W. Collisson. 2013. A DNA Vaccine expressing env and gag offers partial protection against reticuloendotheliosis virus in the prairie chicken (Tympanicus cupido). Journal of Zoo and Wildlife Medicine 44:251–261.

\*Dunn, J.R., S. M. Reddy, M. Niikura, V. Nair, J.E. Fulton and H.H. Cheng. 2017. Evaluation and identification of Marek’s disease virus BAC clones as standardized reagents for research. Avian Dis. 61:107-114.

\*Fulton, J. E., J. Arango, R. A. Ali, E. B. Bohorquez, A. R. Lund, C. M. Ashwell, P. Settar, N. P. O'Sullivan, and M. D. Koci. 2014. Genetic variation within the Mx gene of commercially selected chicken lines reveals multiple haplotypes, recombination and a protein under selection pressure. PLoS One 9:e108054. doi 10.1371/journal.pone.0108054

\*Fulton, J.E., A.M. McCarron, A.R. Lund, K.N. Pinegar, A. Wolc, O. Chazara, B. Bed’Hom, M. E. Berres and M.M. Miller, 2016. A high-density SNP panel reveals extensive diversity, frequent recombination and multiple recombination hotspots within the chicken major histocompatibility complex *B* region between *BG2* and *CD1A1*. Genetics Sel. Evol. 48:1

\*Fulton, J.E., M. E. Berres, J. Kantanen and M. Honkatukia. 2017. MHC-B variability within the Finnish Landrace chicken conservation program. Poult. Sci. *in press*

\*Irizarry, K. J. L., E. Downs, R. Bryden, J. Clark, L. Griggs, R. Kopulos, C. M. Boettger, T. J. Carr, C. L. Keeler, E. Collisson, and Y. Drechsler. 2017. RNA sequencing demonstrates large-scale temporal dysregulation of gene expression in stimulated macrophages derived from MHC-defined chicken haplotypes. Plos One 12.

\*Irizarry, K. J., A. Chan, D. Kettle, S. Kezian, D. Ma, L. Palacios, Q. Q. Li, C. L. Keeler, and Y. Drechsler. 2017. Bioinformatics analysis of chicken miRNAs associated with monocyte to macrophage differentiation and subsequent IFNγ stimulated activation. MicroRNA 6:53–70.

\*Kim, D. K., H. S. Lillehoj, S. I. Jang, S. H. Lee, Y. H. Hong, and S. J. Lamont. 2015. Genetically disparate Fayoumi chicken lines show different response to avian necrotic enteritis. J. Poult. Sci. doi: 10.2141/jpsa.0140203

\*Kogut, M. H., C. L. Swaggerty, H. I. Chiang, K. J. Genovese, H. He, H. Zhou, and R. J. Arsenault. 2014. Critical role of glycogen synthase kinase-3beta in regulating the avian heterophil response to Salmonella enterica Serovar Enteritidis. Front. Vet. Sci. 1:10.

\*Kogut, M. H., C. L. Swaggerty, J. A. Byrd, R. Selvaraj, and R. J. Arsenault. 2016. Chicken-Specific Kinome Array Reveals that Salmonella enterica Serovar Enteritidis Modulates Host Immune Signaling Pathways in the Cecum to Establish a Persistence Infection. Int. J. Mol. Sci. 17:1207.

\*Kogut, M., C. L. Swaggerty, H. I. Chiang, K. J. Genovese, H. He, H. Zhou, and R. Arsenault. 2014. Critical role of glycogen synthase kinase-3β in regulating the avian heterophil response to Salmonella enterica serovar Enteritidis. Front Vet Sci, doi:10.3389/fvets.2014.00010.

\*Lee, M. O., E. Yang, M. Morisson, A. Vignal, Y.-Z. Huang, H. H. Cheng, W. M. Muir, S. J. Lamont, H. S. Lillehoj, S. H. Lee, and J. E. Womack. 2014. Mapping and genotypic analysis of the NK-lysin gene in chicken. Genet. Sel. Evol.46:43. doi: 10.1186/1297-9686-46-43

\*Lee, S. H., X. Dong, H. S. Lillehoj, S. J. Lamont, X. Suo, D. K. Kim, K.-W. Lee, and Y. H. Hong. 2016. Comparing the immune responses of two genetically B-complex disparate Fayoumi chicken lines to *Eimeria tenella*. Brit. Poult. Sci. 57:165–171. doi:10.1080/00071668.2016.1141172

\*Li, J., R. Li, Y. Wang, X. Hu, Y. Zhao, L. Li, C. Feng, X. Gu, F. Liang, S. J. Lamont, S. Hu, H. Zhou, and N. Li. 2015. Genome-wide DNA methylome variation in two genetically distinct chicken lines using MethylC-seq. BMC Genomics 16:851. doi: 10.1186/s12864-015-2098-8

\*Miller, M. M., and R. L. Taylor, Jr. 2016. Brief review of the chicken major histocompatibility complex – the genes, their distribution on chromosome 16 and their contribution to disease resistance. Poult. Sci. 95:375-392 doi:10.3382/ps/pev379 (review)

\*Miller, M., C. Robinson, J. Abernathy, R. M. Goto, M. Hamilton, H. Zhou, and M. Delany. 2014. Mapping genes to chicken microchromosome 16 and discovery of olfactory and scavenger receptor genes near the major histocompatibility complex. J Heredity 105(2):203-15. doi: 10.1093/jhered/est091.

\*Nguyen-Phuc, H., J.E. Fulton, and M.E. Berres, 2016. Genetic variation of Major Histocompatibility Complex (MHC) in wild Red JungleFowl (Gallus gallus). Poultry Science 95:400-411.

\*Schmid, M., J. Smith, D. W. Burt, B. L. Aken, P. B. Antin, A. L. Archibald, C. Ashwell, P. J. Blackshear, C. Boschiero, C. T. Brown, S. C. Burgess, H. H. Cheng, W. Chow, D. J. Coble, A. Cooksey, R. P. M. A. Crooijmans, J. Damas, R. V. N. Davis, D. J. de Koning, M. E. Delany, T. Derrien, T. T. Desta, I. C. Dunn, M. Dunn, H. Ellegren, L. Eöry, I. Erb, M. Farré, M. Fasold, D. Fleming, P. Flicek, K. E. Fowler, L. Frésard, D. P. Froman, V. Garceau, P. P. Gardner, A. A. Gheyas, D. K. Griffin, M. A. M. Groenen, T. Haaf, O. Hanotte, A. Hart, J. Häsler, S. B. Hedges, J. Hertel, K. Howe, A. Hubbard, D. A. Hume, P. Kaiser, D. Kedra, S. J. Kemp, C. Klopp, K. E. Kniel, R. Kuo, S. Lagarrigue, S. J. Lamont, D. M. Larkin, R. A. Lawal, S. M. Markland, F. McCarthy, H. A. McCormack, M. C. McPherson, A. Motegi, S. A. Muljo, A. Münsterberg, R. Nag, I. Nanda, M. Neuberger, A. Nitsche, C. Notredame, H. Noyes, R. O’Connor, E. A. O''Hare, A. J. Oler, S. C. Ommeh, H. Pais, M. Persia, F. Pitel, L. Preeyanon, P. Prieto Barja, E. M. Pritchett, D. D. Rhoads, C. M. Robinson, M. N. Romanov, M. Rothschild, P. F. Roux, C. J. Schmidt, A. S. Schneider, M. Schwartz, S. M. Searle, M. A. Skinner, C. A. Smith, P. F. Stadler, T. E. Steeves, C. Steinlein, L. Sun, M. Takata, I. Ulitsky, Q. Wang, Y. Wang, W. C. Warren, J. M. D. Wood, D. Wragg, and H. Zhou. Third Report on Chicken Genes and Chromosomes 2015. Cytogenet Genome Res. 2015. 145:79–180.

\*Shanmugasundaram, R., M. H. Kogut, R. J. Arsenault, C. L. Swaggerty, K. Cole, J. M. Reddish, and R. K. Selvaraj. 2015. Effect of Salmonella infection on cecal tonsil regulatory T cell properties in chickens. Poult. Sci. 94:1828-1835.

\*Wang, Y., B. Lupiani, S. Reddy, S. J. Lamont, and H. Zhou. 2014. RNA-seq analysis revealed novel genes and signaling pathway associated with disease resistance to avian influenza virus infection in chickens. Poult Sci 93(2):485-493. doi: 10.3382/ps.2013-03557.

\*Wang, Y., P. Saelao, K. Chanthavixay, R. A. Gallardo, D. Bunn, S. Lamont, J. Dekkers, T. Kelly, and H. Zhou. 2017. Physiological responses to heat stress in two genetically distinct chicken inbred lines. Poult. Sci. *in press*

\*Zhang, J., M. Kaiser, M. Deist, R. A. Gallardo, D. Bunn, T. Kelly, J. Dekkers, H. Zhou, and S. J. Lamont. 2017. Transcriptome analysis in spleen reveals differential regulation of response to Newcastle disease virus in two chicken lines. Sci. Rep. *in press*

**185 publications from individual project participants**

Abernathy, J., C. Corkill, C. Hinojosa, X. Li, and H. Zhou. 2013. Deletions in the pyruvate pathway of Salmonella Typhimurium alter SPI1-mediated gene expression and infectivity. J. Anim. Sci. Biotechnol. 4:5. doi: 10.1186/2049-1891-4-5.

Abraham, M., L. R. McDougald, and R. B. Beckstead. 2014. Blackhead disease: reduced sensitivity of Histomonas meleagridis to nitarsone in vitro and in vivo. Avian Dis. 58:60-63

Ahrens, B. J., L. Li, A. K. Ciminera, J. Chea, E. Poku, J. R. Bading, M. R. Weist, M. M. Miller, D. M. Colcher, and J. E. Shively. 2017. Diagnostic PET Imaging of Mammary Microcalcifications Using 64Cu-DOTA-Alendronate in a Rat Model of Breast Cancer. J. Nuclear Med. 58:1373-1379.

Allali, I., J. W. Arnold, J. Roach, M. B. Cadenas, N. Butz, H. M. Hassan, M. Koci, A. Ballou, M. Mendoza, R. Ali, and M. A. Azcarate-Peril. 2017. A comparison of sequencing platforms and bioinformatics pipelines for compositional analysis of the gut microbiome. BMC Microbiol 17:194. doi 10.1186/s12866-017-1101-8

Anderson, J. L., C. M. Ashwell, S. C. Smith, R. Shine, E. C. Smith, and R. L. Taylor, Jr. 2013. Atherosclerosis-susceptible and atherosclerosis-resistant pigeon aortic cells express different genes in vivo. Poult. Sci. 92:2668-2680 doi: 10.3382/ps.2013-03306

Anderson, J. L., M. C. Keeley, S. C. Smith, E. C. Smith, and R. L. Taylor, Jr. 2014. Rosiglitizone modulates pigeon atherosclerotic lipid accumulation and gene expression in vitro. Poult. Sci. 93:1368-1374 doi: 10.3382/ps.2013-03840

Anderson, J. L., S. C. Smith and R. L. Taylor, Jr. 2013. Atherosclerosis-susceptible and atherosclerosis-resistant pigeon aortic smooth muscle cells express different genes and proteins in vitro. In: Current Trends in Atherogenesis. R. Rezzani, (ed.) InTech, Inc., Rijeka, Croatia (review) pp. 165-186 accessed February 27, 2013 doi: 10.5772/52948 <http://www.intechopen.com/articles/show/title/atherosclerosis-susceptible-and-atherosclerosis-resistant-pigeon-aortic-smooth-muscle-cells-express->

Anderson, J. L., S. C. Smith and R. L. Taylor, Jr. 2014. The pigeon (Columba livia) model of spontaneous atherosclerosis. (review) Poult. Sci. 93:2691-2699 doi: 10.3382/ps.2014-0428

Andersson, L., A. L. Archibald, C. D. Bottema, R. Brauning, S. C. Burgess, D. W. Burt, E. Casas, H. H. Cheng, L. Clarke, C. Couldrey, B. P. Dalrymple, C. G. Elsik, S. Foissac, E. Giuffra, M. A. Groenen, B. J. Hayes, L. S. Huang, H. Khatib, J. W. Kijas, H. Kim, J. K. Lunney, F. M. McCarthy, J. C. McEwan, S. Moore, B. Nanduri, C. Notredame, Y. Palti, G. S. Plastow, J. M. Reecy, G. A. Rohrer, E. Sarropoulou, C. J. Schmidt, J. Silverstein, R. L. Tellam, M. Tixier-Boichard, G.Tosser-Klopp, C. K. Tuggle, J. Vilkki, S. N. White, S. Zhao, and H. Zhou. The FAANG Consortium. 2015. Coordinated international action to accelerate genome-to-phenome with FAANG, the Functional Annotation of Animal Genomes project. Genome Biol 16:57. doi: 10.1186/s13059-015-0622-4

Arsenault, R. J., and M. H. Kogut. 2015. Immunometabolism and the kinome peptide array: a new perspective and tool for the study of gut health. Front. Vet. Sci. Oct 13;2:44. doi: 10.3389/fvets.2015.00044

Arsenault, R. J., B. Trost, and M. H. Kogut. 2014. A comparison of the chicken and turkey proteomes and phosphoproteomes in the development of poultry-specific immuno-metabolism kinome peptide arrays. Front. Vet. Sci. Nov 13;1:22. doi: 10.3389/fvets.2014.00022.

Arsenault, R. J., J. T. Lee, R. Latham, B. Carter, and M. H. Kogut. 2017. Changes in immune and metabolic gut response in broilers fed β-mannanase in β-mannan-containing diets. Poult. Sci. Sep 14. doi: 10.3382/ps/pex246.

Arsenault, R. J., K. J. Genovese, H. He, H. Wu, A. S. Neish, and M. H. Kogut. 2016. Wild-type and mutant AvrA−Salmonella induce broadly similar immune pathways in the chicken ceca with key differences in signaling intermediates and inflammation. Poult. Sci. 95:354–363.

Arsenault, R. J., M. H. Kogut, and H. He. 2013. Combined CpG and poly I:C stimulation of monocytes results in unique signaling activation not observed with the individual ligands. Cell. Signal. 25:2246–2254.

Arsenault, R. J., P. Maattanen, J. Daigle, A. Potter, P. Griebel, and S. Napper. 2014a. From mouth to macrophage: mechanisms of innate immune subversion by Mycobacterium avium subsp. paratuberculosis. Vet. Res. 45:54.

Arsenault, R. J., S. Napper, and M. H. Kogut. 2013c. Salmonella enterica typhimurium infection causes metabolic changes in chicken muscle involving AMPK, fatty acid and insulin/mTOR signaling. Vet. Res. 44:35.

Arsenault, R. J., Y. Li, P. Maattanen, E. Scruten, K. Doig, A. Potter, P. Griebel, A. Kusalik, and S. Napper. 2013b. Altered Toll-Like Receptor 9 Signaling in Mycobacterium avium subsp. paratuberculosis-Infected Bovine Monocytes Reveals Potential Therapeutic Targets. Infect. Immun. 81:226–237.

Arsenault, R., and M. H. Kogut. 2013. Chicken-specific peptide arrays for kinome analysis: Flight for the flightless. Research Gate 7:79–89.

Ballou, A. L., R. A. Ali, M. A. Mendoza, J. C. Ellis, H. M. Hassan, W. J. Croom, and M. D. Koci. 2016. Development of the Chick Microbiome: How Early Exposure Influences Future Microbial Diversity. Front Vet Sci 3:2. doi 10.3389/fvets.2016.00002

Barrios, M. A., A. Kenyon, and R. B. Beckstead. 2017. Development of a dry medium for isolation of Histomonas meleagridis in the field. Avian Dis. 61:242-244

Bickhart, D. M., L. Xu, J. L. Hutchison, J. B. Cole, D. J. Null, S. G. Schroeder, J. Song, J. F. Garcia, T. S. Sonstegard, C. P. Van Tassell, R. D. Schnabel, J. F. Taylor, H. A. Lewin, and G. E. Liu. 2016. Diversity and population-genetic properties of copy number variations and multicopy genes in cattle. DNA Res 23:253-262. doi 10.1093/dnares/dsw013

Boschiero, C., A.A. Gheyas, H.K. Ralph, L. Eory, B. Paton, R. Kuo, J. Fulton, R. Preisinger, P. Kaiser, and D.W. Burt, 2015. Detection and characterization of small insertion and deletion genetic variants in modern layer chicken genomes. BMC Genomics 16:562.

Burks, T. A. and R. L. Taylor, Jr. 2014. Genetic control of Rous sarcoma virus-induced tumor growth in chickens: Role of the major histocompatibility (B) complex. Animal Science Image Gallery. http://animalimagegallery.org/search.php #5178

Carrillo, J. A., Y. He, J. Luo, K. R. Menendez, N. L. Tablante, K. Zhao, J. N. Paulson, B. Li, and J. Song. 2015. Methylome Analysis in Chickens Immunized with Infectious Laryngotracheitis Vaccine. PLoS One 10:e0100476. doi 10.1371/journal.pone.0100476

Carrillo, J. A., Y. He, Y. Li, J. Liu, R. A. Erdman, T. S. Sonstegard, and J. Song. 2016. Integrated metabolomic and transcriptome analyses reveal finishing forage affects metabolic pathways related to beef quality and animal welfare. Sci Rep 6:25948. doi 10.1038/srep25948

Chang, S., Q. Xie, J. R. Dunn, C. W. Ernst, J. Song, and H. Zhang. 2014. Host genetic resistance to Marek's disease sustains protective efficacy of herpesvirus of turkey in both experimental and commercial lines of chickens. Vaccine 32:1820-1827. doi 10.1016/j.vaccine.2014.01.092

Chen, H., Q. Zuo, Y. Wang, J. Song, H. Yang, Y. Zhang, and B. Li. 2017. Inducing goat pluripotent stem cells with four transcription factor mRNAs that activate endogenous promoters. BMC Biotechnol 17:11. doi 10.1186/s12896-017-0336-7

Chen, H., Q. Zuo, Y. Wang, M. F. Ahmed, K. Jin, J. Song, Y. Zhang, and B. Li. 2017. Regulation of Hedgehog Signaling in Chicken Embryonic Stem Cells Differentiation Into Male Germ Cells (Gallus). J Cell Biochem 118:1379-1386. doi 10.1002/jcb.25796

Chen, Y., J. Stookey, R. Arsenault, E. Scruten, P. Griebel, and S. Napper. 2016. Investigation of the physiological, behavioral, and biochemical responses of cattle to restraint stress. J. Anim. Sci. 94:3240–3254.

Chen, Y., R. Arsenault, S. Napper, and P. Griebel. 2015. Models and Methods to Investigate Acute Stress Responses in Cattle. Animals 5:1268–1295.

Cheng, H. H., P. Kaiser, and S. J. Lamont. 2013. Integrated genomic approaches to enhance genetic resistance in chickens. Annu. Rev. Anim. Biosci.1:239–260

Chou, W.-K., C.-H. Chen, C. N. Vuong, D. Abi-Ghanem, S. D. Waghela, W. Mwangi, L. R. Bielke, B. M. Hargis, and L. R. Berghman. 2016. Significant mucosal sIgA production after a single oral or parenteral administration using in vivo CD40 targeting in the chicken. Res. Vet. Sci. 108:112–115.

Clarke, L. L, R. B. Beckstead, J. R. Hayes, and D. R. Rissi. 2017. Pathologic and molecular characterization of histomoniasis in peafowl (Pavo cristatus). J. Vet. Diagn. Invest. 29:237-241

Collisson, E., L. Griggs, and Y. Drechsler. 2017. Macrophages from disease resistant B2 haplotype chickens activate T lymphocytes more effectively than macrophages from disease susceptible B19 birds. Developmental & Comparative Immunology 67:249–256.

Cooper, J., Y. Ding, J. Song, and K. Zhao. 2017. Genome-wide mapping of DNase I hypersensitive sites in rare cell populations using single-cell DNase sequencing. Nat Protoc 12:2342-2354. doi 10.1038/nprot.2017.099

Daigle, J., B. Van Wyk, B. Trost, E. Scruten, R. Arsenault, A. Kusalik, P. J. Griebel, and S. Napper. 2014. Peptide arrays for kinome analysis of livestock species. Vet. Infect. Dis. 1:4.

Delany, M.E. and T.H. O’Hare. 2013. Genetic stocks for immunological research (Appendix I). In Avian Immunology, 2nd Edition (editors: K.A. Schat, B. Kaspers and P. Kaiser). Elsevier: Academic Press, San Diego, CA. ISBN 9780123969651. 456 pp.

Derksen T. J., Lampron R., Hauck R., M. Pitesky, and R. A. Gallardo. 2017. Biosecurity assessment and seroprevalence of respiratory diseases in backyard poultry flocks located close and far from commercial premises. Avian Dis. (In press).

Drobik-Czwaro, W., A. Wolc, J.E. Fulton, J. Arango, T. Jankowski, N.P. O’Sullivan and J.C.M. Dekkers, 2017. Identifying the genetic basis for resistance to avian influenza in commercial egg layer chickens. Animal. doi: 10.1017/S1751731117002889

Du, J., Z. Yuan, Z. Ma, J. Song, X. Xie, and Y. Chen. 2014. KEGG-PATH: Kyoto encyclopedia of genes and genomes-based pathway analysis using a path analysis model. Molecular Biosystems 10:2441-2447. doi 10.1039/c4mb00287c

Erf, G. F., and I. R. Ramachandran. 2016. The growing feather as a dermal test-site: comparison of leukocyte profiles during the response to Mycobacterium butyricum in growing feathers, wattles, and wing webs. Poult. Sci.: 95:2011-2022.

Erf, G. F., D. M. Falcon, K. A. Sullivan, and S.E. Bourdo. 2017. T lymphocytes dominate local leukocyte infiltration in response to intradermal injection of functionalized graphene-based nanomaterial. J. Applied Toxicol. 37:1317-1324.

Erf, G. F., H. R. Kong, K. A. Byrne, D. M. Falcon, and Z. Aguilar. 2017. Novel approach to simultaneously assess and monitor an individual’s humoral and cellular immune responses in the chicken model. PLOS ONE (submitted; PONE-D-17-42058).

Figueroa A., R. Hauck, J. Saldias-Rodriguez, and R. A. Gallardo. 2017. Combination of quaternary ammonia and glutaraldehyde as a disinfectant against enveloped and non-enveloped viruses. J. Appl. Poult. Res. 26(4): 491-497.

Fulton, J. E., 2014. The value of resequencing data for poultry breeding: A primary layer breeder perspective. Poultry Science 93:494-497.

Fulton, J.E., A.R. Lund, A.M. McCarron, K.N. Pinegar, D.R. Korver, H.L. Classen, S. Aggrey, C. Utterbach, N.B. Anthony and M.E. Berres, 2016. MHC variability in heritage breeds of chickens. Poultry Science 95:393-399.

Fulton, J.E., J. Arango, J.A. Arthur, P.Settar, K.S. Kreager, and N.P. O’Sullivan, 2013. Improving the outcome of a Marek’s disease challenge in multiple lines of egg type chickens. Avian Dis. 57:395-400.

Gadde, U., T. Rathinam, G. F. Erf, and H. D. Chapman. 2013. Acquisition of immunity to the protozoan parasite Eimeria adenoeides in turkey poults and cellular responses to infection. Poult. Sci. 92:3149-3157.

Gallardo, R. A., R. Carrasco-Medanic, H. Zhou, S. Lyu, Y. Wang, P. R. Woodcock, and F. J. Hoerr. 2014. Effects of very virulent infectious bursal disease virus reassortants challenge in commercial chickens. Avian Dis 58:579-586.

Galvan, S. C., A. Garcia Carranca, J. Song, and F. Recillas-Targa. 2015. Epigenetics and animal virus infections. Front Genet 6:48. doi 10.3389/fgene.2015.00048

Genovese, K. J., H. He, C. L. Swaggerty, and M. H. Kogut. 2013. The avian heterophil. Dev. Comp. Immunol. 41:334-340.

Grenier, B., I. Dohnal, R. Shanmugasundaram, S. D. Eicher, R. K. Selvaraj, G. Schatzmayr, and T. J. Applegate. 2016. Susceptibility of Broiler Chickens to Coccidiosis When Fed Subclinical Doses of Deoxynivalenol and Fumonisins-Special Emphasis on the Immunological Response and the Mycotoxin Interaction. Toxins (Basel) 8.

Han, B., L. Lian, X. Li, C. Zhao, L. Qu, C. Liu, J. Song, and N. Yang. 2016a. Chicken gga-miR-103-3p Targets CCNE1 and TFDP2 and Inhibits MDCC-MSB1 Cell Migration. G3 (Bethesda) 6:1277-1285. doi 10.1534/g3.116.028498

Han, B., L. Lian, X. Li, C. Zhao, L. Qu, C. Liu, J. Song, and N. Yang. 2016b. Chicken gga-miR-130a targets HOXA3 and MDFIC and inhibits Marek's disease lymphoma cell proliferation and migration. Mol Biol Rep 43:667-676. doi 10.1007/s11033-016-4002-2

Han, B., Y. He, L. Zhang, Y. Ding, L. Lian, C. Zhao, J. Song, and N. Yang. 2017. Long intergenic non-coding RNA GALMD3 in chicken Marek's disease. Sci Rep 7:10294. doi 10.1038/s41598-017-10900-2

Hashim, M. M., R. J. Arsenault, J. A. Byrd, M. H. Kogut, M. Al-Ajeeli, and C. A. Bailey. Influence of different yeast cell wall preparations and their components on performance and immune and metabolic pathways in Clostridium perfringens-challenged broiler chicks. Poult. Sci.

Hauck R., B. Crossley, D. Rejmanek, H. Zhou, and R. A. Gallardo. 2017. Persistence of high and low pathogenic avian influenza viruses in footbaths and poultry manure. Avian Dis. 61:64-69.

Hauck R., C. G. Sentíes-Cué, Y. Wang, C. Kern, H. L. Shivaprasad, H. Zhou, and R. A. Gallardo. 2017. Evolution of avian encephalomyelitis virus during embryo adaptation. Vet. Microbiol. 204:1-7.

Hauck, R., C. G. Sentíes-Cué, Y. Wang, C. Kern, H. L. Shivaprasad, H. Zhou, and R. A. Gallardo. 2017. Evolution of avian encephalomyelitis virus during embryo-adaptation. Vet Microbiol 204:1-7. doi: 10.1016/j.vetmic.2017.04.005. Epub 2017 Apr 9.

Hauck, R., D. Crossley, D. Rejmanek, H. Zhou, and R. A. Gallardo. 2017. Persistence of high and low pathogenic avian influenza viruses in footbaths and poultry manure. Avian Dis 61:64-69.

He, H., K. J. Genovese, C. L. Swaggerty, D. J. Nisbet, and M. H. Kogut. 2013. Nitric oxide as a biomarker of intracellular Salmonella viability and identification of the bacteriostatic activity of protein kinase A inhibitor H-89. PLoS One 8:e58873.

He, Y. H., S. Y. Pu, F. H. Xiao, X. Q. Chen, D. J. Yan, Y. W. Liu, R. Lin, X. P. Liao, Q. Yu, L. Q. Yang, X. L. Yang, M. X. Ge, Y. Li, J. J. Jiang, W. W. Cai, and Q. P. Kong. 2016. Improved lipids, diastolic pressure and kidney function are potential contributors to familial longevity: a study on 60 Chinese centenarian families. Sci Rep 6:21962. doi 10.1038/srep21962

He, Y., M. Song, Y. Zhang, X. Li, J. Song, Y. Zhang, and Y. Yu. 2016. Whole-genome regulation analysis of histone H3 lysin 27 trimethylation in subclinical mastitis cows infected by Staphylococcus aureus. BMC Genomics 17:565. doi 10.1186/s12864-016-2947-0

He, Y., Y. Ding, F. Zhan, H. Zhang, B. Han, G. Hu, K. Zhao, N. Yang, Y. Yu, L. Mao, and J. Song. 2016. Corrigendum: The conservation and signatures of lincRNAs in Marek's disease of chicken. Sci Rep 6:19422. doi 10.1038/srep19422

Heidaritabar, M., A. Wolc, J. Arango, J. Zeng, P.Settar, J.E. Fulton, N.P.O’Sullivan, J.W.M, Bastiaansen, R.L. Fernando, D.J. Garrick, JCM. Dekkers, 2016. Impact of fitting dominance and additive effects on accuracy of genomic prediction of breeding values in layers. J. Anim. Breed. Genet. 5:334-346.

Hughes, R. A., R. A. Ali, M. A. Mendoza, H. M. Hassan, and M. D. Koci. 2017. Impact of dietary galacto-oligosaccharide (GOS) on chicken's gut microbiota, mucosal gene expression, and Salmonella colonization. Front Vet Sci 4:192. doi 10.3389/fvets.2017.00192

Jang, H-M, G. F. Erf, K. C. Rowland, and B.-W Kong. 2014. Genome resequencing and bioinformatics analysis of SNP containing candidate genes in the autoimmune vitiligo Smyth line chicken model. BMC Genomics, 15:707.

Jesudhasan, P. R., J. L. McReynolds, A. J. Byrd, H. He, K. J. Genovese, R. Drolesky, C. L. Swaggerty, M. H. Kogut, D. J. Nisbet, C. Praveen, and S. D. Pillai. 2015. Electron-beam-inactivated vaccine against Salmonella Enteritidis colonization in molting hens. Avian Dis. 59:165-170.

Jia, X., Q. Nie, X. Zhang, L. K. Nolan, and S. J. Lamont. 2017. Novel miRNA involved in host response to avian pathogenic Escherichia coli identified by deep sequencing and integration analysis. Infect. Immun. 85:e00688-16. doi.org/10.1128/IAI.00688-16

Jie, H., L. Lian, L. J. Qu, J. X. Zheng, Z. C. Hou, G. Y. Xu, J. Z. Song, and N. Yang. 2013. Differential expression of Toll-like receptor genes in lymphoid tissues between Marek's disease virus-infected and noninfected chickens. Poultry Science 92:645-654. doi 10.3382/ps.2012-02747

Jordan, B. J., S. Vogel, M. R. Stark, and R. B. Beckstead. 2014. Expression of green fluorescent protein in the chicken using in vivo transfection of the piggyBac transposon. J Biotechnol. 10:86-89

Kim, T.H., and H. Zhou. 2015. Functional analysis of chicken IRF7 in response to dsRNA analog Poly(I:C) by integrating overexpression and knockdown: PLoS One 10.1371/journal.pone.0133450

Kindrachuk, J., V. Wahl-Jensen, D. Safronetz, B. Trost, T. Hoenen, R. Arsenault, F. Feldmann, D. Traynor, E. Postnikova, A. Kusalik, S. Napper, J. E. Blaney, H. Feldmann, and P. B. Jahrling. 2014. Ebola virus modulates transforming growth factor β signaling and cellular markers of mesenchyme-like transition in hepatocytes. J. Virol. 88:9877–9892.

Kjaerup, R. M., T. S. Dalgaard, L. R. Norup, R. M. Goto, M. M. Miller, P. Sorensen, and H. R. Juul-Madsen. 2014. Transcription efficiency of different chicken mannose-binding lectin promoter alleles. Immunogenetics 66:737-742.

Kogut, M. H., and R. J. Arsenault. 2015. A Role for the Non-Canonical Wnt-β-Catenin and TGF-β Signaling Pathways in the Induction of Tolerance during the Establishment of a Salmonella enterica Serovar Enteritidis Persistent Cecal Infection in Chickens. Front. Vet. Sci. 2

Kogut, M. H., and R. J. Arsenault. 2017. Immunometabolic Phenotype Alterations Associated with the Induction of Disease Tolerance and Persistent Asymptomatic Infection of Salmonella in the Chicken Intestine. Front. Immunol. 8

Kogut, M. H., K. J. Genovese, H. He, and R. J. Arsenault. 2016a. AMPK and mTOR: sensors and regulators of immunometabolic changes during Salmonella infection in the chicken. Poult. Sci. 95:345–353.

Kogut, M. H., K. J. Genovese, H. He, C. L. Swaggerty, and Y. Jiang. 2013. Modulation of chicken intestinal immune gene expression by small cationic peptides as feed additives during the first week post-hatch. Clin. Vac. Immunol. 20:1440-1448.

Kranis, A., A.M Gheyas, C. Boschiero, F. Turner, L. Yu, S. Smith, R. Talbot, A. Pirani, F. Brew, P. Kaiser, P.M Hocking, M. Fife, N. Salmon, J. Fulton, T. M. Strom, G. Haberer, S. Weigend, R. Preisinger, M. Gholami, S. Qanbari, H. Simianer, K. A. Watson, J. A Wooliams and D.W Burt. 2013. Development of a high density 600K SNP genotyping array for chicken. BMC Genomics, 14:59

Krishnamoorthy, A. S., C. D. Smith, A. A. Al-Rubaye, G. F. Erf, R. F. Wideman, N. B. Anthony, and D. D. Rhoads. 2014. A quantitative trait locus for ascites on chromosome 9 in broiler chicken lines. Poult Sci. 93:307-317.

Kropp, J., J. A. Carrillo, H. Namous, A. Daniels, S. M. Salih, J. Song, and H. Khatib. 2017. Male fertility status is associated with DNA methylation signatures in sperm and transcriptomic profiles of bovine preimplantation embryos. BMC Genomics 18:280. doi 10.1186/s12864-017-3673-y

Kuttappan, V. A., O. T. Faulkner, A. Wolfenden, G. Tellez, B. M. Hargis, and L. R. Bielke. 2013. Novel recombinant food safety vaccines against Salmonella and Campylobacter in broiler chickens. Int. J. Biotechnol. Bioeng. Res. 4:589–596.

Lai, F. N., H. L. Zhai, M. Cheng, J. Y. Ma, S. F. Cheng, W. Ge, G. L. Zhang, J. J. Wang, R. Q. Zhang, X. Wang, L. J. Min, J. Z. Song, and W. Shen. 2016. Whole-genome scanning for the litter size trait associated genes and SNPs under selection in dairy goat (Capra hircus). Sci Rep 6:38096. doi 10.1038/srep38096

Lan, X., Y. Wang, K. Tian, F. Ye, H.-D. Yin, X.-L. Zhao, H.-Y. Xu, Y. Huang, H. Liu, J. Hsieh, S. Lamont, and Q. Zhu. 2017. Integrated host and viral transcriptome analyses reveal pathology and inflammatory response mechanisms to ALV-J injection in SPF chickens. Sci. Reports 7:46156. doi: 10.1038/srep46156

Lee, M. O., H.-J. Jang, D. Rengaraj, S.-Y. Yang, J. Y. Han, S. J. Lamont, and J. E. Womack. 2016. Tissue expression and antibacterial activity of host defense peptides in chicken. BMC Vet Res 12:231. doi: 10.1186/s12917-016-0866-6

Lee, M. O., L. Andersson, S. J. Lamont, J. Chen, and J. E. Womack. 2016. Duplication of defensin7 gene in Fayoumi chickens generated by gene conversion and homologous recombination. PNAS 113:13815–13820. doi: 10.1073/pnas.1616948113

Li, D., Y. Ji, F. Wang, Y. Wang, M. Wang, C. Zhang, W. Zhang, Z. Lu, C. Sun, M. F. Ahmed, N. He, K. Jin, S. Cheng, Y. Wang, Y. He, J. Song, Y. Zhang, and B. Li. 2017. Regulation of crucial lncRNAs in differentiation of chicken embryonic stem cells to spermatogonia stem cells. Anim Genet 48:191-204. doi 10.1111/age.12510

Li, Y., J. A. Carrillo, Y. Ding, Y. He, C. Zhao, L. Zan, and J. Song. 2015. Ruminal Transcriptomic Analysis of Grass-Fed and Grain-Fed Angus Beef Cattle (vol 10, e0116437, 2015). Plos One 10. doi 10.1371/journal.pone.0134067

Lu, Y., F. D. West, B. J. Jordan, E. T. Jordan, R. C. West, P. Yu, Y. He, M. A. Barrios, Z, Zhu, J. N. Petitte, R. B. Beckstead, and S. L. Stice. 2014. Induced pluripotency in chicken embryonic fibroblast results in a germ cell fate. Stem Cells Dev. 23:1755-1764

Luo, J., J. A. Carrillo, K. R. Menendez, N. L. Tablante, and J. Song. 2014. Transcriptome analysis reveals an activation of major histocompatibility complex 1 and 2 pathways in chicken trachea immunized with infectious laryngotracheitis virus vaccine. Poultry Science 93:848-855. doi 10.3382/ps.2013-03624

Luo, J., S. Chang, H. Zhang, B. Li, and J. Song. 2013a. DNA Methylation Down-Regulates EGFR Expression in Chickens. Avian Diseases 57:366-371.

Luo, J., Y. Yu, A. Mitra, S. Chang, H. Zhang, G. Liu, N. Yang, and J. Song. 2013b. Genome-Wide Copy Number Variant Analysis in Inbred Chickens Lines With Different Susceptibility to Marek's Disease. G3-Genes Genomes Genetics 3:217-223. doi 10.1534/g3.112.005132

Luoma, A., A. Markazi, R. Shanmugasundaram, G. R. Murugesan, M. Mohnl, and R. Selvaraj. 2017. Effect of synbiotic supplementation on layer production and cecal Salmonella load during a Salmonella challenge. Poult Sci. doi: 10.3382/ps/pex251.

Ma, M. Z., R. Lin, J. Carrillo, M. Bhutani, A. Pathak, H. Ren, Y. Li, J. Song, and L. Mao. 2015. DNMT3B4-del Contributes to Aberrant DNA Methylation Patterns in Lung Tumorigenesis. EBioMedicine 2:1340-1350. doi 10.1016/j.ebiom.2015.09.002

Markazi, A. D., V. Perez, M. Sifri, R. Shanmugasundaram, and R. K. Selvaraj. 2017. Effect of whole yeast cell product supplementation (CitriStim(R)) on immune responses and cecal microflora species in pullet and layer chickens during an experimental coccidial challenge. Poult. Sci. 96:2049-2056.

Mason, A.S., J.E. Fulton, P.M Hocking and D.W. Burt, 2016. A new look at the LTR retrotansposon content of the chicken genome. BMC Genomics 17:688. doi: 10.1186/s12864-016-3043-1

McPherson, M.C., and M.E. Delany. 2016. Virus and host genomic, molecular and cellular interactions during Marek’s disease pathogenesis and oncogenesis. Poultry Science 95:412-429. http://ps.oxfordjournals.org/content/early/2016/01/14/ps.pev369.full.pdf?papetoc

McPherson, M.C., H.H Cheng, and M.E. Delany. 2016. Marek’s disease herpesvirus vaccines integrate into chicken host chromosomes yet lack a virus-host phenotype associated with oncogenic transformation. Vaccine 34:5554-5561 http://dx.doi.org/10.1016/j.vaccine.2016.09.051 (Highlighted article November 2016: http://www.journals.elsevier.com/vaccine/highlighted-articles/highlighted-article-november-2016

McPherson, M.C., L. Gehlen, C.M. Robinson, and M. E. Delany. 2014. Comparative cytogenomics of poultry: mapping of single genes and repeat loci in the Japanese quail (Coturnix japonica) Chromosome Res. 22:71-83. doi:10.1007/s10577-014-9411-2 http://link.springer.com/article/10.1007/s10577-014-9411-2

Meliopoulos, V. A., S. A. Marvin, P. Freiden, L. A. Moser, P. Nighot, R. Ali, A. Blikslager, M. Reddivari, R. J. Heath, M. D. Koci, and S. Schultz-Cherry. 2016. Oral Administration of Astrovirus Capsid Protein Is Sufficient To Induce Acute Diarrhea In Vivo. MBio 7. doi 10.1128/mBio.01494-16

Menconi, A., L. R. Bielke, B. M. Hargis, and G. Tellez. 2014. Immuno-modulation and anti-inflammatory effects of antibiotic growth promoters versus probiotics in the intestinal tract. J. Microbiol. Res. Rev. 2: 62-67.

Mitra, A., J. Luo, Y. He, Y. Gu, H. Zhang, K. Zhao, K. Cui, and J. Song. 2015. Histone modifications induced by MDV infection at early cytolytic and latency phases. BMC Genomics 16:311. doi 10.1186/s12864-015-1492-6

Morris, A., and R. K. Selvaraj. 2014. In vitro 25-hydroxycholecalciferol treatment of lipopolysaccharide-stimulated chicken macrophages increases nitric oxide production and mRNA of interleukin- 1 beta and 10. Vet Immunol. Immunopathol. 161:265-270.

Morris, A., R. Shanmugasundaram, J. McDonald, and R. K. Selvaraj. 2015. Effect of in vitro and in vivo 25-hydroxyvitamin D treatment on macrophages, T cells, and layer chickens during a coccidia challenge. J. Anim. Sci. 93:2894-2903.

Morris, A., R. Shanmugasundaram, M. S. Lilburn, and R. K. Selvaraj. 2014. 25-Hydroxycholecalciferol supplementation improves growth performance and decreases inflammation during an experimental lipopolysaccharide injection. Poult. Sci. 93:1951-1956.

Napper, S., S. Dadgar, R. J. Arsenault, B. Trost, E. Scruten, A. Kusalik, and P. Shand. 2015. Induction of tissue- and stressor-specific kinomic responses in chickens exposed to hot and cold stresses. Poult. Sci. 94:1333–1345.

Nazmi A., R. Hauck, A. Davis, M. Hildebrand, L.B. Corbeil, and R. A. Gallardo. 2017. Diatoms and diatomaceous earth as novel poultry vaccine adjuvants. Poult. Sci. 92:288-294

Nazmi A., R. Hauck, L. B. Corbeil, and R. A. Gallardo. 2017. The effect of diatomaceous earth in live attenuated infectious bronchitis vaccine, immune responses and protection against challenge. Poult. Sci. 96:8 2623-2629.

Perez, V., R. Shanmugasundaram, M. Sifri, T. M. Parr, and R. K. Selvaraj. 2017. Effects of hydroxychloride and sulfate form of zinc and manganese supplementation on superoxide dismutase activity and immune responses post lipopolysaccharide challenge in poultry fed marginally lower doses of zinc and manganese. Poult. Sci.. doi: 10.3382/ps/pex244

Placek, K., G. Hu, K. Cui, D. Zhang, Y. Ding, J. E. Lee, Y. Jang, C. Wang, J. E. Konkel, J. Song, C. Liu, K. Ge, W. Chen, and K. Zhao. 2017. MLL4 prepares the enhancer landscape for Foxp3 induction via chromatin looping. Nat Immunol 18:1035-1045. doi 10.1038/ni.3812

Rezvani, M., M. Mendoza, M. D. Koci, C. Daron, J. Levy, and H. M. Hassan. 2016a. Draft Genome Sequence of Lactobacillus crispatus C25 Isolated from Chicken Cecum. Genome Announc 4. doi 10.1128/genomeA.01223-16

Rezvani, M., M. Mendoza, M. D. Koci, C. Daron, J. Levy, and H. M. Hassan. 2016b. Draft Genome Sequences of Lactobacillus animalis Strain P38 and Lactobacillus reuteri Strain P43 Isolated from Chicken Cecum. Genome Announc 4. doi 10.1128/genomeA.01229-16

Robinson, C.M., H.H. Cheng, and M.E. Delany. 2014. Marek’s disease virus and chicken host genome interactions. Viral genome integration occurs early post-infection and over a timeframe associated with latency, yet integration alone is not sufficient for cellular transformation. Cytogenet. Genome Res. 144:142-154.

Schaal, T.P., J. Arango, A. Wolc, J.V. Brady, J.E. Fulton, I. Rubinoff, I.J. Ehr, M.E. Persia and N.P. O’Sullivan, 2016. Commercial Hy-Line W-36 pullet and laying hen venous blood gas and chemistry profiles utilizing the portable i-STAT 1 analyzer. Poultry Science 95:466-471.

Schock, E.N., C.-F. Chang, I. Youngworth, M. Davey, M.E. Delany, and S.A. Brugmann. 2016. Utilizing the chicken as an animal model for human craniofacial ciliopathies. Developmental Biology 45(2):326-337. http://dx.doi.org/10.1016/j.ydbio.2015.10.024 (PMID: 26597494)

Schock, E.N., C.-F. Chang, J. N. Struve, Y.T. Chang, J. Chang, M. E. Delany and S.A. Brugmann. 2015. Using the avian mutant talpid2 as a disease model for understanding the oral-facial phenotypes of Oral-facial-digital syndrome. Disease Models and Mechanisms 8:855-866. http://dmm.biologists.org/content/8/8/855.full.pdf+html (Highlighted in F1000; PMID: 26044959)

Selvaraj, R. K. 2013. Avian CD4(+)CD25(+) regulatory T cells: properties and therapeutic applications. Dev. Comp. Immunol. 41:397-402.

Shanmugasundaram, R., and R. K. Selvaraj. 2013. In ovo injection of anti-chicken CD25 monoclonal antibodies depletes CD4+CD25+ T cells in chickens. Poult. Sci. 92:138-142.

Shanmugasundaram, R., M. Sifri, and R. K. Selvaraj. 2013. Effect of yeast cell product (CitriStim) supplementation on broiler performance and intestinal immune cell parameters during an experimental coccidial infection. Poult. Sci. 92:358-363.

Shanmugasundaram, R., M. Sifri, and R. K. Selvaraj. 2013. Effect of yeast cell product supplementation on broiler cecal microflora species and immune responses during an experimental coccidial infection. Poult. Sci. 92:1195-1201.

Shanmugasundaram, R., M. Sifri, R. Jeyabalan, and R. K. Selvaraj. 2014. Effect of yeast cell product (CitriStim) supplementation on turkey performance and intestinal immune cell parameters during an experimental lipopolysaccharide injection. Poult. Sci. 93:2763-2771.

Shi, S., Y. Shen, S. Zhang, Z. Zhao, Z. Hou, H. Zhou, J. Zou, and Y. Guo. 2017. Combinatory evaluation of transcriptome and metabolome profiles of low temperature-induced resistant ascites syndrome in broiler chickens. Sci Rep 7(1):2389. doi: 10.1038/s41598-017-02492-8.

Shi, S., Y. Shen, Z. Zhao, Z. Hou, Y. Yang, H. Zhou, J. Zou, and Y. Guo. 2014. Integrative analysis of transcriptomic and metabolomic profiling of ascites syndrome in broiler chickens induced by low temperature. Mol Biosyst. 10(11):2984-93. doi: 10.1039/c4mb00360h.

Slawinska, A., J. C.-F. Hsieh, C. Schmidt, and S. J. Lamont. 2016. Heat stress and lipopolysaccharide stimulation of chicken HD11 cell line activates expression of distinct sets of genes. PLOS ONE. doi:10.1371/journal.pone.0164575

Smith, J., D. W. Burt, and the Avian RNAseq Consortium. 2015. The Avian RNAseq Consortium: a community effort to annotate the chicken genome. Cytogenet. Genome Res. 145:78–179. doi: 10.1101/012559

Stepicheva, N. A., and J. L. Song. 2016. Function and regulation of microRNA-31 in development and disease. Mol Reprod Dev 83:654-674. doi 10.1002/mrd.22678

Sullivan K. A., and G. F. Erf. 2017. Leukocyte infiltration profiles during the cutaneous phytohemagglutinin response. Poult. Sci. 96:3574-3580.

Sun, H., P. Liu, L. K. Nolan, and S. J. Lamont. 2015. Avian pathogenic Escherichia coli (APEC) infection alters bone marrow transcriptome in chickens. BMC Genomics 16:690. doi: 10.1186/s12864-015-1850-4

Sun, H., P. Liu, L. K. Nolan, and S. J. Lamont. 2015. Novel pathways revealed in bursa of Fabricius transcriptome in response to extraintestinal pathogenic Escherichia coli (ExPEC) infection. PLOS ONE 10(11): e0142570. doi:10.1371/journal.pone.0142570

Sun, H., P. Liu, L. K. Nolan, and S. J. Lamont. 2016. Thymus transcriptome reveals novel pathways in response to avian pathogenic Escherichia coli infection. Poult. Sci. 95:2803–2814. doi: 10.3382/ps/pew202

Sun, H., R. Bi, P. Liu, L. K. Nolan, and S. J. Lamont. 2016. Combined analysis of primary lymphoid tissues' transcriptomic response to extra-intestinal Escherichia coli (ExPEC) infection. Dev Comp Immunol 57: 99–106

Swaggerty, C. L., I. Y. Pevzner, and M. H. Kogut. 2014. Selection for pro-inflammatory mediators yields chickens with increased resistance against Salmonella enterica serovar Enteritidis. Poult. Sci. 93:535-544.

Swaggerty, C. L., I. Y. Pevzner, and M. H. Kogut. 2015. Selection for pro-inflammatory mediators produces chickens more resistant to Eimeria tenella. Poult. Sci. 94:37-42.

Swaggerty, C. L., I. Y. Pevzner, H. He, K. J. Genovese, and M. H. Kogut. 2017. Selection for pro-inflammatory mediators produces chickens more resistant to Campylobacter jejuni. Poult. Sci. 96:1623-1627.

Swaggerty, C. L., J. L. McReynolds, J. A. Byrd, I. Y. Pevzner, S. E. Duke, K. J. Genovese, H. He, and M. H. Kogut. 2016. Selection for pro-inflammatory mediators produces chickens more resistant to Clostridium perfringens-induced necrotic enteritis. Poult. Sci. 95:370-374.

Swaggerty, C. L., Kogut, M. H., He, H., Genovese, K. J., Johnson, C., and Arsenault, R. J. 2017. Differential levels of cecal colonization by Salmonella enteritidis in chickens triggers distinct immune kinome profiles. Front. Vet. Sci. | doi: 10.3389/fvets.2017.00214

Taylor, R. L., Jr. 2015. Letter to the Editor – An incomplete story told by a single number. Poult. Sci. 94:1995-1996 doi:10.3382/ps/pev221

Taylor, R. L., Jr. 2016. Letter to the Editor – A publication experiment. Poult. Sci. 95:227 doi:10.3382/ps/pev451

Taylor, R. L., Jr. 2015. The future of poultry science research: Challenges as opportunities. AMENA, Asociación Mexicana de Especialistas en Nutrición Animal, Puerta Vallarta, Mexico http://www.poultryscience.org/2015\_AMENA\_Symposium.asp

Taylor, R. L., Jr. 2016. Nunc Dimitis - W. Elwood Briles. Poult. Sci. 95:2477 doi:10.3382/ps/pew176

Taylor, R. L., Jr. 2017. Renew the priority for manuscript review. Poult. Sci. 96:4133 doi 10.3382/ps/pex267

Taylor, R. L., Jr., J. L. Anderson, and S. C. Smith, 2014. Commentary on: Atherosclerosis-susceptible and atherosclerosis-resistant pigeon aortic cells express different genes in vivo. International Atherosclerosis Society http://www.athero.org/commentaries/comm1188.asp

Taylor, R. L., Jr., Z. Medarova, and W. E. Briles. 2016. Immune effects of chicken non-Mhc alloantigens. Poult. Sci. 95:447-457 doi:10.3382/ps/pev331 (review)

Tian, F., F. Zhan, N. D. VanderKraats, J. F. Hiken, J. R. Edwards, H. Zhang, K. Zhao, and J. Song. 2013. DNMT gene expression and methylome in Marek's disease resistant and susceptible chickens prior to and following infection by MDV. Epigenetics 8:431-444. doi 10.4161/epi.24361

Tilley, J. E. N., J. L. Grimes, M. D. Koci, R. A. Ali, C. R. Stark, P. K. Nighot, T. F. Middleton, and A. C. Fahrenholz. 2017. Efficacy of feed additives to reduce the effect of naturally occurring mycotoxins fed to turkey hen poults reared to 6 weeks of age. Poult Sci. doi 10.3382/ps/pex214

Trost, B., R. Arsenault, P. Griebel, S. Napper, and A. Kusalik. 2013. DAPPLE: a pipeline for the homology-based prediction of phosphorylation sites. Bioinformatics 29:1693–1695.

Troxell, B., N. Petri, C. Daron, R. Pereira, M. Mendoza, H. M. Hassan, and M. D. Koci. 2015. Poultry body temperature contributes to invasion control through reduced expression of Salmonella pathogenicity island 1 genes in Salmonella enterica serovars Typhimurium and Enteritidis. Appl Environ Microbiol 81:8192-8201. doi 10.1128/AEM.02622-15

Tuggle, C. K., E. Giuffra, S. N. White, L. Clarke, H. Zhou, P. J. Ross, H. Acloque, J. M. Reecy, A. Archibald, R. R. Bellone, M. Boichard, A. Chamberlain, H. Cheng, R. P. Crooijmans, M. E. Delany, C. J. Finno, M. A. Groenen, B. Hayes, J. K. Lunney, J. L. Petersen, G. S. Plastow, C. J. Schmidt, J. Song, and M. Watson. 2016. GO-FAANG meeting: a Gathering On Functional Annotation of Animal Genomes. Anim Genet 47:528-533. doi 10.1111/age.12466

Tuggle, C., E. Giuffra, S. N. White, L. Clarke, H. Zhou, P. J. Ross, H. Acloque, J. M. Reecy, A. Archibald, R. R. Bellone, M. Boichard, A. Chamberlain, H. Cheng, R. P.M.A. Crooijmans, M. E. Delany, C. J. Finno, M. A. M. Groenen, B. Hayes, J. K. Lunney, J. L. Petersen, G. S. Plastow, C. J. Schmidt, J. Song, and M. Watson. 2016. “GO-FAANG meeting: a Gathering on functional annotation of animal genomes” Animal Genet DOI: 10.1111/age.12466.

Tuo, W., L. Li, Y. Lv, J. Carrillo, D. Brown, W. C. Davis, J. Song, D. Zarlenga, and Z. Xiao. 2016. Abomasal mucosal immune responses of cattle with limited or continuous exposure to pasture-borne gastrointestinal nematode parasite infection. Vet Parasitol 229:118-125. doi 10.1016/j.vetpar.2016.10.005

Van Goor, A., A. Slawinska, C. J. Schmidt, and S. J. Lamont. 2016. Distinct functional responses to stressors of bone marrow derived dendritic cells from diverse inbred chicken lines. Dev. Comp. Immunol. 63: 96–110

Van Goor, A., C. M. Ashwell, M. E. Persia, M. F. Rothschild, C. J. Schmidt, and S. J. Lamont. 2017. Unique genetic responses revealed in RNA-seq of the spleen of chickens stimulated with lipopolysaccharide and heat. PLOS ONE 12(2): e0171414. doi:10.1371/journal.pone.0171414

Vuong, C. N., W.-K. Chou, V. A. Kuttappan, B. M. Hargis, L. R. Bielke, and L. R. Berghman. 2017. A Fast and Inexpensive Protocol for Empirical Verification of Neutralizing Epitopes in Microbial Toxins and Enzymes. Front. Vet. Sci. 4 Available at <https://www.frontiersin.org/articles/10.3389/fvets.2017.00091/full>

Wang, X., J. Liu, G. Zhou, J. Guo, H. Yan, Y. Niu, Y. Li, C. Yuan, R. Geng, X. Lan, X. An, X. Tian, H. Zhou, J. Song, Y. Jiang, and Y. Chen. 2016. Whole-genome sequencing of eight goat populations for the detection of selection signatures underlying production and adaptive traits. Sci Rep 6:38932. doi 10.1038/srep38932

Warren, W.C., L.W. Hillier, C. Tomlinson, P. Minx, M. Kremitzki, T. Graves, C. Markovic, N. Bouk, K. Pruitt, F. Thibaud-Nissen, V. Schneider. T. Mansour, C.T. Brown, A. Zimin, R. Hawken, A.B. Pyrkosz, M. Morisson, V. Fallon, A. Vignal, W. Chow, K. Howe, J.E. Fulton, M.M. Miller, P.I. Lovell, C. Mello, M. Wirthlin, A.S. Mason, R. Kuo, D.W. Burt, J.B Dodgson and H.H. Cheng, 2017. A new chicken genome assembly provides insight into avian genome structure. G3: Genes, Genomes, Genetics, 7 (1) p 109-117. doi:10.1534/g3.116.035923

Weathers, B., S. L. Branton, R. Jacob, R. L. Taylor, Jr., E. D. Peebles, and G. T. Pharr. 2015. Expression of the ephrin receptor B2 in the embryonic chicken bursa of Fabricius. Int. J. Poult. Sci. 14:485-490

Weng, Z., A. Wolc, X. Shen, R.L. Fernando, J.C.M. Dekkers. J. Arango. P. Settar, J.E. Fulton, N.P. O’Sullivan, and D.J. Garrick, 2016. Effects of number of training generations on genomic prediction for various traits in a layer chicken population. Genetics Selection Evolution 48:22, DOI 10.1186/s12711-016-0198-9.

Wideman, R. F., D. D. Rhoads, G. F. Erf, and N. B. Anthony. 2013. Pulmonary Hypertension Syndrome (PHS, Ascites Syndrome) in Broilers: A Review. Poult. Sci. 92:64-83.

Wolc, A, J. Arango, T. Jankowski, P. Settar, J.E. Fulton, N.P. O’Sullivan, R. Fernando, D. J. Garrick and J.C.M. Dekkers, 2013. Genome wide association study for Marek’s Disease mortality in layer chickens. Avian Diseases 57:519-522.

Wolc, A., A. Kranis, J. Arango, P. Settar, J.E. Fulton, N.P. O’Sullivan, A. Avendano, K.A. Watson, J.M. Hickey, G. de los Campos, R.L. Fernando, D.J. Garrick and J.C.M. Dekkers, 2016. Implementation of genomic selection in the poultry industry. Animal Frontiers 6: 23-31.

Wolc, A., H.H. Zhao, J. Arango, P. Settar, J.E. Fulton, N.P. O’Sullivan, R. Preisinger, C. Stricker, D. Habier, R.L Fernando, S.H. Lamont, J.C.M. Dekkers, 2015. Response and inbreeding from a genomic selection experiment in layer chickens. Genetic Selection Evolution 47: 59

Wolc, A., J. Arango, P. Settar, J.E. Fulton, N.P. O’Sullivan, J.C.M. Deckers, R. Fernando and D.J. Garrick, 2016. Mixture models detect large effect QTL better than GBLUP and result in more accurate and persistent predictions. J. Anim. Sci. Biotech. doi 10.1186/s40104-016-0066-z

Wolc, A., J. Arango, P. Settar, J.E. Fulton, N.P. O’Sullivan, R. Preisinger, R. Fernando, D.J. Garrick and J.C.M. Dekkers, 2013. Analysis of egg production in layer chickens using a random regression model with genomic relationships. Poultry Science 92: 1486-1491.

Wolc, A., J. Arango, T. Jankowski, I. Dunn, P.Settar, J.E. Fulton, N.P. O’Sullivan, R. Preisinger, R.L. Fernando, D.J. Garrick and J.C.M. Dekkers, 2014. Genome-wide association study for egg production and quality in layer chickens. Journal of Animal Breeding and Genetics. 131 (3): 173-182.

Wolc, A., J. Arango, T. Jankowski, P. Settar, J.E. Fulton, N.P. O’Sullivan, R. Fernando, D.J. Garrick and J.C.M. Dekkers, 2013. Pedigree and genomic analyses of feed consumption and residual feed intake in laying hens. Poultry Science 92:2270-2275.

Wu, G., L. Liu, Y. Qi, Y. Sun, N. Yang, G. Xu, H. Zhou, and X. Li. 2015. Splenic gene expression profiling in White Leghorn layer inoculated with the Salmonella enterica serovar Enteritidis. Anim Genet. doi: 10.1111/age.12341.

Xu, H., X. Zhu, Y. Hu, Z. Li, X. Zhang, Q. Nie, L. K. Nolan, and S. J. Lamont. 2014. DNA methylome in spleen of avian pathogenic Escherichia coli-challenged broilers and integration with mRNA expression. Sci. Rep. 4:4299. doi:10.1038/srep04299

Xu, L., D. M. Bickhart, J. B. Cole, S. G. Schroeder, J. Song, C. P. Van Tassell, T. S. Sonstegard, and G. E. Liu. 2015. Genomic Signatures Reveal New Evidences for Selection of Important Traits in Domestic Cattle. Molecular Biology and Evolution 32:711-725. doi 10.1093/molbev/msu333

Xu, L., F. Zhao, H. Ren, L. Li, J. Lu, J. Liu, S. Zhang, G. E. Liu, J. Song, L. Zhang, C. Wei, and L. Du. 2014. Co-Expression Analysis of Fetal Weight-Related Genes in Ovine Skeletal Muscle during Mid and Late Fetal Development Stages. International Journal of Biological Sciences 10:1039-1050. doi 10.7150/ijbs.9737

Xu, L., J. B. Cole, D. M. Bickhart, Y. Hou, J. Song, P. M. VanRaden, T. S. Sonstegard, C. P. Van Tassell, and G. E. Liu. 2014. Genome wide CNV analysis reveals additional variants associated with milk production traits in Holsteins. Bmc Genomics 15. doi 10.1186/1471-2164-15-683

Xu, L., R. J. Haasl, J. Sun, Y. Zhou, D. M. Bickhart, J. Li, J. Song, T. S. Sonstegard, C. P. Van Tassell, H. A. Lewin, and G. E. Liu. 2017. Systematic Profiling of Short Tandem Repeats in the Cattle Genome. Genome Biol Evol 9:20-31. doi 10.1093/gbe/evw256

Xu, L., Y. He, Y. Ding, G. Sun, J. A. Carrillo, Y. Li, M. M. Ghaly, L. Ma, H. Zhang, G. E. Liu, and J. Song. 2017. Characterization of Copy Number Variation's Potential Role in Marek's Disease. Int J Mol Sci 18. doi 10.3390/ijms18051020

Xu, L., Y. Hon, D. M. Bickhart, J. Song, C. P. Van Tassell, T. S. Sonstegard, and G. E. Liu. 2014. A genome-wide survey reveals a deletion polymorphism associated with resistance to gastrointestinal nematodes in Angus cattle. Functional & Integrative Genomics 14:333-339. doi 10.1007/s10142-014-0371-6

Xu, L., Y. Hou, D. M. Bickhart, Y. Zhou, H. A. Hay el, J. Song, T. S. Sonstegard, C. P. Van Tassell, and G. E. Liu. 2016. Population-genetic properties of differentiated copy number variations in cattle. Sci Rep 6:23161. doi 10.1038/srep23161

Yu, P., Y. Lu, B. J. Jordan, Y. Liu, J. Y. Yang, J. M. Hutcheson, C. L. Ethridge, J. L. Mumaw, H. A. Kinder, R. B. Beckstead, S. L. Stice, and F. D. West. 2014. Nonviral minicircle generation of induced pluripotent stem cells compatible with production of chimeric chickens. Cell Reprogram. 16:366-378

Zar Mon, K. K., P. Saelao, M. M. Halstead, G. Chanthavixay, H.-C. Chang, L. Garas, E. A Maga, and H. Zhou. 2016. Salmonella enterica serovars Enteritidis infection alters the indigenous microbiota diversity in young layer chicks. Front. Vet. Sci. - Veterinary Infectious Diseases. 2:61. doi: 10.3389/fvets.2015.00061.

Zhang, C., M. Wang, N. He, M. F. Ahmed, Y. Wang, R. Zhao, X. Yu, J. Jin, J. Song, Q. Zuo, Y. Zhang, and B. Li. 2018. Hsd3b2 associated in modulating steroid hormone synthesis pathway regulates the differentiation of chicken embryonic stem cells into spermatogonial stem cells. J Cell Biochem 119:1111-1121. doi 10.1002/jcb.26279

Zhao, C., J. A. Carrillo, F. Tian, L. Zan, S. M. Updike, K. Zhao, F. Zhan, and J. Song. 2015. Genome-Wide H3K4me3 Analysis in Angus Cattle with Divergent Tenderness. Plos One 10. doi 10.1371/journal.pone.0115358

Zhao, C., J. A. Carrillo, F. Tian, L. Zan, S. M. Updike, K. Zhao, F. Zhan, and J. Song. 2015. Genome-Wide H3K4me3 Analysis in Angus Cattle with Divergent Tenderness. PLoS One 10:e0115358. doi 10.1371/journal.pone.0115358

Zhao, C., L. Zan, Y. Wang, M. S. Updike, G. Liu, B. J. Bequette, R. L. Baldwin, and J. Song. 2014. Functional proteomic and interactome analysis of proteins associated with beef tenderness in Angus cattle. Livestock Science 161:201-209. doi 10.1016/j.livsci.2013.11.030

Zhao, C., X. Li, B. Han, Z. You, L. Qu, C. Liu, J. Song, L. Lian, and N. Yang. 2017. Gga-miR-219b targeting BCL11B suppresses proliferation, migration and invasion of Marek's disease tumor cell MSB1. Sci Rep 7:4247. doi 10.1038/s41598-017-04434-w

Zhou, H., P. J. Ross, C. Kern, P. Saelao, Y. Wang, J. L. Chitwood, I. Korf, M. Delany, and H. Cheng. 2016. Genome-wide functional annotation of regulatory elements in chickens. Pp:48-52. The Proceedings of XXV World’s Poultry Congress, Beijing, China.

Zhu,Y., W. Wang, T. Yuan, L. Fu, L. Zhou, G. Lin, S. Zhao, H. Zhou, G. Wu, and J. Wang. 2017. MicroRNA-29a mediates the impairment of intestinal epithelial integrity induced by intrauterine growth restriction in pig. Am J Physiol Gastrointest Liver Physiol. 312(5):G434-G442. doi: 10.1152/ajpgi.00020.2017. Epub 2017 Mar 9.

Zuo, Q., K. Jin, Y. Zhang, J. Song, and B. Li. 2017. Dynamic expression and regulatory mechanism of TGF-beta signaling in chicken embryonic stem cells differentiating into spermatogonial stem cells. Biosci Rep 37. doi 10.1042/BSR20170179

Zuo, Q., Y. Wang, S. Cheng, C. Lian, B. Tang, F. Wang, Z. Lu, Y. Ji, R. Zhao, W. Zhang, K. Jin, J. Song, Y. Zhang, and B. Li. 2016. Site-Directed Genome Knockout in Chicken Cell Line and Embryos Can Use CRISPR/Cas Gene Editing Technology. G3 (Bethesda) 6:1787-1792. doi 10.1534/g3.116.028803

**11 total book chapters from NE-1334 Project participants 2013-2017**

**\*= cooperative publication among 2 or more project participants**

\*Lamont, S. J., J. C. M. Dekkers, and H. Zhou. 2014. Immunogenetics and mapping immunological functions. Pages 205–221 in Avian Immunology. K. A. Schat, B. Kaspars, P. Kaiser, ed. Elsevier, London, UK.

**10 book chapters from individual project participants**

Carrillo, J. A.‎ and J. Song. 2014. Bioinformatics in Animal Genetics accepted by book "Molecular and Quantitative Animal Genetics" Molecular and Quantitative Animal Genetics, First Edition. Edited by Hasan Khatib. P143-154 © 2014 John Wiley & Sons, Inc. Published 2014 by John Wiley & Sons, Inc.

Cheng, H. H., and S. J. Lamont. 2013. Genetics of disease resistance. Pages 70–86 in Diseases of Poultry. 13th ed. D. E. Swayne, J. R. Glisson, L. R. McDougald, V. Nair, L. Nolan, and D. L. Suarez, ed. Wiley-Blackwell, Ames, USA

Erf, G. F. 2014. Autoimmune diseases of poultry. Pages 315-332 in: Avian Immunology, 2nd edition, Schat, K. A., Kaspers B. and, P. Kaiser, editors. Elsevier, Academic Press, San Diego, CA. ISBN: 978-0-12-3969965-1.

Erf, G. F., and I. C. Le Poole. 2017. Animal Models for Vitiligo; in: Vitiligo, 2nd edition. M. Picardo and A. Taieb, editors; Springer, SPi Global *in press*

Guix S, N. Krishna, and M.D. Koci. 2013. Astrovirus Immunity. Pages 79-96 in Astrovirus Research: Essential Ideas, Everyday Impacts, Future Directions. S. Schultz-Cherry, ed. Springer Science, New York. doi: 10.1007/978-1-4614-4735-1\_5.

He, Y. and J. Song. 2017 Bioinformatics analysis of Epigenetics. Bioinformatics in Aquaculture: Principles and Methods, First Edition. © 2017 John Wiley & Sons Ltd.

Koci MD and S. Schultz-Cherry. 2017. Astrovirus. Pages 26-38 in Food Microbiology Series: Laboratory Models for Foodborne Infections. D. Liu, ed. CRC Press, Boca Raton. 2017. ISBN: 978-1-4987-2168-4.

Pantin-Jackwood M, D. Todd, and M.D. Koci. 2013. Avian Astroviruses. Pages 151-180 in Astrovirus Research: Essential Ideas, Everyday Impacts, Future Directions. S. Schultz-Cherry, ed. Springer Science, New York. doi: 10.1007/978-1-4614-4735-1\_9

Webb, K. C., S. W. Henning, G. F. Erf, and I. C. Le Poole. 2017. Autoimmune Pathology of Vitiligo; in: Vitiligo, 2nd edition. M. Picardo and A. Taieb, editors; Springer, SPi Global *in press*

Wolc, A, and J.E. Fulton, 2016. Molecular breeding techniques to improve egg quality. In Achieving Sustainable Production of Eggs. Chapter 19. Ed. J. Roberts.