

Antimicrobial Resistance (AMR) and Alternatives to Antibiotics (ATA) Bibliography 2019-2021



Abdelhamed, H., R. Ramachandran, O. Ozdemir, G. Waldbieser, and M. L. Lawrence. 2019. Characterization of a Novel Conjugative Plasmid in *Edwardsiella piscicida* Strain MS-18-199. *Frontiers in Cellular and Infection Microbiology*, 9. <https://doi.org/10.3389/fcimb.2019.00404>

Abdelhamed, H., M. L. Lawrence, and G. Waldbieser, G. 2019. Complete genome sequence data of multidrug-resistant *Aeromonas veronii* strain MS-18-37. *Data in Brief*, 23. <https://doi.org/10.1016/j.dib.2019.01.037>

Achtman, M., Z. Zhou, N. Alikhan, W. Tyne, J. Parkhill, M. Cormican, C. Chiou, M. Torpdahl, E. Litrup, D. M. Prendergast, J. E. Moore, S. Strain, C. Kornschober, R. Meinersmann, A. Uesbeck, F. Weill, A. Coffey, H. Andrews-Polymenis, and S. Fanning. 2020. Genomic diversity of *Salmonella enterica* -The UoWUCC 10K genomes project. *Wellcome Open Research*, 5, 223. <https://doi.org/10.12688/wellcomeopenres.16291.1>

Adhikari, P., S. Yadav, D. E. Cosby, N. A. Cox, J. A. Jendza, and W. K. Kim. 2020. Research note: Effect of organic acid mixture on growth performance and *Salmonella* Typhimurium colonization in broiler chickens. *Poultry Science*, 99(5), 2645-2649. <https://doi.org/10.1016/j.psj.2019.12.037>

Agga, G. E., P. J. Silva, and R. S. Martin. 2021. Detection of extended-spectrum beta-lactamase-producing and carbapenem-resistant bacteria from mink feces and feed in the united states. *Foodborne Pathogens and Disease*, 18(7), 497-505. <https://doi.org/10.1089/fpd.2020.2898>

Agga, G. E., P. J. Silva, and R. S. Martin. 2021. Third-Generation Cephalosporin- and Tetracycline-Resistant *Escherichia coli* and Antimicrobial Resistance Genes from Metagenomes of Mink Feces and Feed. *Foodborne Pathogens and Disease*, 18(3), 169-178. <https://doi.org/10.1089/fpd.2020.2851>

Agga, G. E., J. Kasumba, J. H. Loughrin, and E. D. Conte. 2020. Anaerobic digestion of tetracycline spiked livestock manure and poultry litter increased the abundances of antibiotic and heavy metal resistance genes. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.614424>

Agga, G. E., K. L. Cook, A. M. P. Netthisinghe, R. A. Gilfillen, P. B. Woosley, and K. R. Sistani. 2019. Persistence of antibiotic resistance genes in beef cattle backgrounding environment over two years after cessation of operation. *PLoS ONE*, 14(2). <https://doi.org/10.1371/journal.pone.0212510>

Ahlstrom, C. A., M. L. van Toor, H. Woksepp, J. C. Chandler, J. A. Reed, A. B. Reeves, J. Waldenström, A. B. Franklin, D. C. Douglas, J. Bonnedahl, and A. M. Ramey. 2021. Evidence for continental-scale dispersal of antimicrobial resistant bacteria by landfill-foraging gulls. *Science of the Total Environment*, 764. <https://doi.org/10.1016/j.scitotenv.2020.144551>

Alt, L. M., A. N. Iverson, M. L. Soupir, T. B. Moorman, and A. Howe. 2021. Antibiotic resistance gene dissipation in soil microcosms amended with antibiotics and swine manure. *Journal of Environmental Quality*, 50(4), 911-922. <https://doi.org/10.1002/jeq2.20240>

Anderson, R.C., G. Levent, B. T. Petrujkić, R. B. Harvey, M. E. Hume, H. He, K. J. Genovese, R. C. Beier, T. L. Poole, T. L. Crippen, and D. J. Nisbet. 2021. Antagonistic Effects of Lipids Against the Anti-*Escherichia coli* and Anti-*Salmonella* Activity of Thymol and Thymol- β -d-Glucopyranoside in Porcine Gut and Fecal Cultures *In Vitro*. *Frontiers in Veterinary Science*, 8, art. no. 751266. <https://doi.org/10.3389/fvets.2021.751266>

Anekella, K., and I. M. Pérez-Díaz. 2020. Characterization of robust *Lactobacillus plantarum* and *Lactobacillus pentosus* starter cultures for environmentally friendly low-salt cucumber fermentations. *Journal of Food Science*, 85(10), 3487–3497. <https://doi.org/10.1111/1750-3841.15416>

Arellano, S., B. Law, M. Friedman, and S. Ravishankar. 2021. Essential oil microemulsions inactivate antibiotic-resistant *Salmonella* Newport and spoilage bacterium *Lactobacillus casei* on iceberg lettuce during 28-day storage at 4°C. *Food Control*, 130. <https://doi.org/10.1016/j.foodcont.2021.108209>

Armstrong, B. A., A. R. Kneubehl, I. R. D. Mitchell, A. Krishnavajhala, P. D. Teel, A. A. Pérez de León, and J. E. Lopez. 2020. Differential expression of putative *Ornithodoros turicata* defensins mediated by tick feeding. *Frontiers in Cellular and Infection Microbiology*, 10. <https://doi.org/10.3389/fcimb.2020.00152>

Arzola-Alvarez, C., Y. Castillo-Castillo, R. C. Anderson, M. E. Hume, O. Ruiz-Barrera, B. R. Min, A. Arzola-Rubio, R. C. Beier, and J. Salinas-Chavira. 2020. Influence of pine bark tannin on bacterial pathogens growth and nitrogen compounds on changes in composted poultry litter. *Revista Brasileira de Ciencia Avicola*, 22(1), 1–5. <https://doi.org/10.1590/1806-9061-2018-0911>

Ashworth, D. J., and A. M. Ibekwe. 2020. System of multi-layered environmental media for the removal of antibiotics from wastewater. *Journal of Environmental Chemical Engineering*, 8(5). <https://doi.org/10.1016/j.jece.2020.104206>

Balemi, A., B. Gumi, K. Amenu, S. Girma, M. Gebru, M. Tekle, A. A. Ríus, D. H. D'Souza, G. E. Agga, and O. K. Dego. 2021. Prevalence of mastitis and antibiotic resistance of bacterial isolates from CMT positive milk samples obtained from dairy cows, camels, and goats in two pastoral districts in Southern Ethiopia. *Animals*, 11(6). <https://doi.org/10.3390/ani11061530>

Bannantine, J. P., C. Conde, D. O. Bayles, M. Branger, and F. Biet. 2020. Genetic diversity among mycobacterium avium subspecies revealed by analysis of complete genome sequences. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.01701>

Barrios, R. E., H. K. Khuntia, S. L. Bartelt-Hunt, J. E. Gilley, A. M. Schmidt, D. D. Snow, and X. Li. 2020. Fate and transport of antibiotics and antibiotic resistance genes in runoff and soil as affected by the timing of swine manure slurry application. *Science of the Total Environment*, 712. <https://doi.org/10.1016/j.scitotenv.2020.136505>

Beaudry, M. S., J. C. Thomas, R. P. Baptista, A. H. Sullivan, W. Norfolk, A. Devault, J. Enk, T. J. Kieran, O. E. Rhodes Jr, K. A. Perry-Dow, L. J. Rose, N. J. Bayona-Vásquez, A. Oladeinde, E. K. Lipp, S. Sanchez, and T. C. Glenn. 2021. Escaping the fate of sisyphus: Assessing resistome hybridization baits for antimicrobial resistance gene capture. *Environmental Microbiology*. <https://doi.org/10.1111/1462-2920.15767>

Bearson, B. L., J. M. Trachsel, D. C. Shippy, S. K. Sivasankaran, B. J. Kerr, C. L. Loving, B. W. Brunelle, S. M. Curry, N. K. Gabler, and S. M. D. Bearson. 2020. The Role of *Salmonella* Genomic Island 4 in Metal Tolerance of *Salmonella enterica* Serovar I 4,[5],12:i:- Pork Outbreak Isolate USDA15WA-1. *Genes*, 11(11), 1–19. <https://doi.org/10.3390/genes11111291>

Beier, R.C., K. Andrews, M. E. Hume, M. U. Sohail, R. B. Harvey, T. L. Poole, T. L. Crippen, and R. C. Anderson. 2021. Disinfectant and Antimicrobial Susceptibility Studies of *Staphylococcus aureus* Strains and ST398-MRSA and ST5-MRSA Strains from Swine Mandibular Lymph Node Tissue, Commercial Pork Sausage Meat and Swine Feces. *Microorganisms*, 9 (11), art. no. 2401. <https://doi.org/10.3390/microorganisms9112401>

Beier, R. C., J. A. Byrd, K. Andrews, D. Caldwell, T. L. Crippen, R. C. Anderson, and D. J. Nisbet. 2021. Disinfectant and antimicrobial susceptibility studies of the foodborne pathogen *Campylobacter jejuni* isolated from the litter of broiler chicken houses. *Poultry Science*, 100(2), 1024-1033. <https://doi.org/10.1016/j.psj.2020.10.045>

Beier, R. C., R. B. Harvey, C. A. Hernandez, K. Andrews, R. E. Droleskey, M. E. Hume, M. K. Davidson, S. Bodeis-Jones, S. Young, R. C. Anderson, and D. J. Nisbet. 2019. Disinfectant and Antimicrobial Susceptibility Profiles of *Campylobacter coli* Isolated in 1998 to 1999 and 2015 from Swine and Commercial Pork Chops. *Journal of Food Science*, 84(6), 1501-1512. <https://doi.org/10.1111/1750-3841.14622>

Beier, R. C., R. B. Harvey, T. L. Poole, M. E. Hume, T. L. Crippen, L. D. Highfield, W. Q. Alali, K. Andrews, R. C. Anderson, and D. J. Nisbet. 2019. Interactions of organic acids with vancomycin-resistant *Enterococcus faecium* isolated from community wastewater in Texas. *Journal of Applied Microbiology*, 126(2), 480-488. <https://doi.org/10.1111/jam.14145>

Beni, N. N., D. D. Snow, E. D. Berry, A. R. Mittelstet, T. L. Messer, and S. Bartelt-Hunt. 2020. Measuring the occurrence of antibiotics in surface water adjacent to cattle grazing areas using passive samplers. *Science of the Total Environment*, 726. <https://doi.org/10.1016/j.scitotenv.2020.138296>

Berrang, M. E., R. J. Meinersmann, and S. W. Knapp. 2020. Presence of bacterial pathogens and levels of indicator bacteria associated with duck carcasses in a commercial processing facility. *Journal of Food Protection*, 83(4), 605–608. <https://doi.org/10.4315/0362-028x.jfp-19-397>

Bickhart, D. M., M. Watson, S. Koren, K. Panke-Buisse, L. M. Cersosimo, M. O. Press, C. P. Van Tassel, J. A. Van Kessel, B. J. Haley, S. W. Kim, C. Heiner, G. Suen, K. Bakshy, I. Liachko, S. T. Sullivan, P. R. Myer, J. Ghurye, M. Pop, P. J. Weimer, A. M. Phillippy, and T. P. L. Smith. 2019. Assignment of virus and antimicrobial resistance genes to microbial hosts in a complex microbial community by combined long-read assembly and proximity ligation. *Genome Biology*, 20(1). <https://doi.org/10.1186/s13059-019-1760-x>

Bortoluzzi, C., L. Lahaye, J. Oxford, D. Detzler, C. Eying, N. L. Barbieri, E. Santin, and M. H. Kogut. 2021. Protected organic acid and essential oils for broilers raised under field conditions: intestinal health biomarkers and cecal microbiota. *Frontiers in Physiology*, 12, art. no. 722339. <https://doi.org/10.3389/fphys.2021.722339>

Bosilevac, J. M., S. Zhilyaev, R. Wang, B. E. Luedtke, T. L. Wheeler, and M. Koohmaraie. 2019. Prevalence and characterization of *Salmonella* present during veal harvest. *Journal of Food Protection*, 82(5), 775-784. <https://doi.org/10.4315/0362-028X.JFP-18-478>

Božić, A., R. C. Anderson, C. Arzola-Alvarez, O. Ruiz-Barrera, A. Corral-Luna, Y. Castillo-Castillo, A. Arzola-Rubio, T. L. Poole, R. B. Harvey, M. E. Hume, R. C. Beier, and D. J. Nisbet. 2019. Inhibition of multidrug-resistant Staphylococci by sodium chlorate and select nitro- and medium chain fatty acid compounds. *Journal of Applied Microbiology*, 126(5), 1508-1518. <https://doi.org/10.1111/jam.14232>

Božić, A., R. C. Anderson, T. L. Crippen, C. L. Swaggerty, M. E. Hume, R. C. Beier, H. He, K. J. Genovese, T. L. Poole, R. B. Harvey, and D. J. Nisbet. 2020. Inhibition of *Salmonella* binding to porcine intestinal cells by a wood-derived prebiotic. *Microorganisms*, 8(7), 1–11. <https://doi.org/10.3390/microorganisms8071051>

Broadway, P. R., J. Chance Brooks, D. F. Mollenkopf, M. Alexandra Calle, G. H. Loneragan, M. F. Miller, J. A. Carroll, N. C. Burdick Sanchez, and T. E. Wittum. 2021. Prevalence and antimicrobial susceptibility of *Salmonella* serovars isolated from U.S. retail ground pork. *Foodborne Pathogens and Disease*, 18(3), 219-227. <https://doi.org/10.1089/fpd.2020.2853>

Brooks, J. P., R. K. Smith, C. A. Aldridge, B. Chaney, A. Omer, J. Dentinger, G. M. Street, and B. H. Baker. 2020. A preliminary investigation of wild pig (*sus scrofa*) impacts in water quality. *Journal of Environmental Quality*, 49(1), 27-37. <https://doi.org/10.1002/jeq2.20036>

Brown, E., U. Dessai, S. McGarry, and P. Gerner-Smidt. 2019. Use of whole-genome sequencing for food safety and public health in the United States. *Foodborne Pathogens and Disease*, 16(7), 441-450. <https://doi.org/10.1089/fpd.2019.2662>

Burgess, E. R., C. J. Geden, K. H. Lohmeyer, B. H. King, E. T. Machtinger, and J. G. Scott. 2020. Toxicity of fluralaner, a companion animal insecticide, relative to industry-leading agricultural insecticides against resistant and susceptible strains of filth flies. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-68121-z>

Burke, J. M., and J. E. Miller. 2020. Sustainable approaches to parasite control in ruminant livestock. *Veterinary Clinics of North America - Food Animal Practice*, 36(1), 89-107. <https://doi.org/10.1016/j.cvfa.2019.11.007>

Burrin, D., P. T. Sangild, B. Stoll, T. Thymann, R. Buddington, J. Marini, O. Olutoye, and R. J. Shulman. 2020. Translational advances in pediatric nutrition and gastroenterology: new insights from pig models. *Annual Review of Animal Biosciences*, 8, 321–354. <https://doi.org/10.1146/annurev-animal-020518-115142>

Byrne, K. A., C. L. Loving, and J. L. McGill. 2020. Innate immunomodulation in food animals: Evidence for trained immunity? *Frontiers in Immunology*, 11 doi:10.3389/fimmu.2020.01099

Callahan, M. T., J. A. Van Kessel, and S. A. Micallef. 2019. *Salmonella enterica* recovery from river waters of the Maryland Eastern Shore reveals high serotype diversity and some multidrug resistance. *Environmental Research*, 168, 7-13. <https://doi.org/10.1016/j.envres.2018.09.012>

Callaway, T. R., H. Lillehoj, R. Chuanchuen, and C. G. Gay. 2021. Alternatives to antibiotics: A symposium on the challenges and solutions for animal health and production. *Antibiotics*, 10(5). <https://doi.org/10.3390/antibiotics10050471>

Cao, H., A. K. Pradhan, J. S. Karns, E. Hovingh, D. R. Wolfgang, B. T. Vinyard, S. W. Kim, S. Salaheen, B. J. Haley, and J. A. S. Van Kessel. 2019. Age-associated distribution of antimicrobial-resistant *Salmonella enterica* and *Escherichia coli* isolated from dairy herds in Pennsylvania, 2013–2015. *Foodborne Pathogens and Disease*, 16(1), 60-67. <https://doi.org/10.1089/fpd.2018.2519>

Carlson, J. C., J. C. Chandler, B. Bisha, J. T. LeJeune, and T. E. Wittum. 2020. Bird-livestock interactions associated with increased cattle fecal shedding of ciprofloxacin-resistant *Escherichia coli* within feedlots in the United States. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-66782-4>

Carter, M. Q., A. Pham, X. He, and R. Hnasko. 2020. Genomic insight into natural inactivation of shiga toxin 2 production in an environmental *Escherichia coli* strain producing shiga toxin 1. *Foodborne Pathogens and Disease*, 17(9), 555–567. <https://doi.org/10.1089/fpd.2019.2767>

Chandler, J. C., J. E. Anders, N. A. Blouin, J. C. Carlson, J. T. LeJeune, L. D. Goodridge, B. Wang, L. A. Day, A. M. Mangan, D. A. Reid, S. M. Coleman, M. W. Hopken, and B. Bisha. 2020. The Role of European starlings (*Sturnus vulgaris*) in the dissemination of multidrug-

resistant *Escherichia coli* among concentrated animal feeding operations. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-64544-w>

Chandler, J. C., A. B. Franklin, S. N. Bevins, K. T. Bentler, J. Bonnedahl, C. A. Ahlstrom, B. Bisha, and S. A. Shriner. 2020. Validation of a screening method for the detection of colistin-resistant *E. coli* containing *mcr-1* in feral swine feces. *Journal of Microbiological Methods*, 172. <https://doi.org/10.1016/j.mimet.2020.105892>

Chang, J., B. Tang, Y. Chen, X. Xia, M. Qian, and H. Yang. 2020. Two IncHI2 plasmid-mediated colistin-resistant *Escherichia coli* strains from the broiler chicken supply chain in Zhejiang Province, China. *Journal of Food Protection*, 83(8), 1402-1410. <https://doi.org/10.4315/JFP-20-041>

Charlton, N. D., M. Yi, C. H. Bock, M. Zhang, and C. A. Young. 2020. First description of the sexual stage of *Venturia effusa*, causal agent of pecan scab. *Mycologia*, 112(4), 1–11. <https://doi.org/10.1080/00275514.2020.1759998>

Chellan, P., V. M. Avery, S. Duffy, K. M. Land, C. C. Tam, J. H. Kim, L. W. Cheng, I. Romero-Canelón, and P. J. Sadler. 2021. Bioactive half-sandwich Rh and Ir bipyridyl complexes containing artemisinin. *Journal of Inorganic Biochemistry*, 219. <https://doi.org/10.1016/j.jinorgbio.2021.111408>

Chen, M., Y. Du, S. Wu, Y. Nomura, G. Zhu, B. S. Zhorov, and K. Dong. 2019. Molecular evidence of sequential evolution of DDT-and pyrethroid-resistant sodium channel in *Aedes aegypti*. *PLoS Neglected Tropical Diseases*, 13(6). <https://doi.org/10.1371/journal.pntd.0007432>

Chen, M., Y. Du, Y. Nomura, B. S. Zhorov, and K. Dong. 2020. Chronology of sodium channel mutations associated with pyrethroid resistance in *Aedes aegypti*. *Archives of Insect Biochemistry and Physiology*, 104(2). <https://doi.org/10.1002/arch.21686>

Cho, S., L. M. Hiott, T. A. Woodley, J. G. Frye, and C. R. Jackson. 2020. Evaluation of a new chromogenic agar for the detection of environmental *Enterococcus*. *Journal of Microbiological Methods*, 178. <https://doi.org/10.1016/j.mimet.2020.106082>

Cho, S., J. B. Barrett, J. G. Frye, and C. R. Jackson. 2020. Antimicrobial resistance gene detection and plasmid typing among multidrug resistant enterococci isolated from freshwater environment. *Microorganisms*, 8(9), 1-15. <https://doi.org/10.3390/microorganisms8091338>

Cho, S., C. R. Jackson, and J. G. Frye. 2020. The prevalence and antimicrobial resistance phenotypes of *Salmonella*, *Escherichia coli* and *Enterococcus* sp. in surface water. *Letters in Applied Microbiology*, 71(1), 3-25. <https://doi.org/10.1111/lam.13301>

Cho, S., S. K. Gupta, E. A. McMillan, P. Sharma, H. Ramadan, T. Jové, C. R. Jackson, and J. G. Frye. 2020. Genomic analysis of multidrug-resistant *Escherichia coli* from surface water in

Northeast Georgia, United States: presence of an ST131 epidemic strain containing blaCTX-M-15 on a phage-like plasmid. *Microbial Drug Resistance*, 26(5), 447-455.

<https://doi.org/10.1089/mdr.2019.0306>

Cho, S., L. M. Hiott, J. M. McDonald, J. B. Barrett, E. A. McMillan, S. L. House, E. S. Adams, J. G. Frye, and C. R. Jackson. 2020. Diversity and antimicrobial resistance of *Enterococcus* from the Upper Oconee Watershed, Georgia. *Journal of Applied Microbiology*, 128(4), 1221-1233.

<https://doi.org/10.1111/jam.14550>

Cho, S., H. A. T. Nguyen, J. M. McDonald, T. A. Woodley, L. M. Hiott, J. B. Barrett, C. R. Jackson, and J. G. Frye. 2019. Genetic characterization of antimicrobial-resistant *Escherichia coli* isolated from a mixed-use watershed in Northeast Georgia, USA. *International Journal of Environmental Research and Public Health*, 16(19). <https://doi.org/10.3390/ijerph16193761>

Chopyk, J., P. Kulkarni, D. J. Nasko, R. Bradshaw, K. E. Kniel, P. Chiu, M. Sharma, and A. R. Sapkota. 2019. Zero-valent iron sand filtration reduces concentrations of virus-like particles and modifies virome community composition in reclaimed water used for agricultural irrigation. *BMC Research Notes*, 12(1). <https://doi.org/10.1186/s13104-019-4251-y>

Clawson, M. L., G. Schuller, A. M. Dickey, J. L. Bono, R. W. Murray, M. T. Sweeney, M. D. Apley, K. D. DeDonder, S. F. Capik, R. L. Larson, B. V. Lubbers, B. J. White, J. Blom, C. G. Chitko-McKown, D. M. Brichta-Harhay, and T. P. L. Smith. 2020. Differences between predicted outer membrane proteins of genotype 1 and 2 *Mannheimia haemolytica*. *BMC Microbiology*, 20(1), 250. <https://doi.org/10.1186/s12866-020-01932-2>

Costard, S., J. G. Pouzou, K. E. Belk, P. S. Morley, J. W. Schmidt, T. L. Wheeler, T. M. Arthur, and F. J. Zangmutt. 2020. No change in risk for antibiotic-resistant salmonellosis from beef, United States, 2002–2010. *Emerging Infectious Diseases*, 26(9), 2108–2117.

<https://doi.org/10.3201/eid2609.190922>

Couch, M., G. E. Agga, J. Kasumba, R. R. Parekh, J. H. Loughrin, and E. D. Conte. 2019. Abundances of tetracycline resistance genes and tetracycline antibiotics during anaerobic digestion of swine waste. *Journal of Environmental Quality*, 48(1), 171-178.

<https://doi.org/10.2134/jeq2018.09.0331>

Crippen, C. S., M. J. Rothrock Jr., S. Sanchez, and C. M. Szymanski. 2020. Multidrug resistant *Acinetobacter* isolates release resistance determinants through contact-dependent killing and bacteriophage lysis. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.01918>

Crippen, T. L., C. L. Sheffield, B. Singh, J. A. Byrd, and R. C. Beier. 2019. How management practices within a poultry house during successive flock rotations change the structure of the soil microbiome. *Frontiers in Microbiology*, 10. <https://doi.org/10.3389/fmicb.2019.02100>

Dar, D., L. S. Thomashow, D. M. Weller, and D. K. Newman. 2020. Global landscape of phenazine biosynthesis and biodegradation reveals species-specific colonization patterns in agricultural soils and crop microbiomes. *ELife*, 9, 1–44. <https://doi.org/10.7554/ELIFE.59726>

Dassanayake, R. P., T. L. T. Wherry, S. M. Falkenberg, T. A. Reinhardt, E. Casas, and J. R. Stabel. 2021. Bovine NK-lysin-derived peptides have bactericidal effects against *Mycobacterium avium* subspecies *paratuberculosis*. *Vet Res.* 52(1):11. <https://10.1186/s13567-021-00893-2>

Dassanayake, R. P., S. M. Falkenberg, E. M. Nicholson, R. E. Briggs, F. M. Tatum, V. K. Sharma, and T. A. Reinhardt. 2019. Synthetic bovine NK-lysin-derived peptide (bNK2A) does not require intra-chain disulfide bonds for bactericidal activity. *PLoS One.* 14(6):e0218507. <https://10.1371/journal.pone.0218507>

Deliberto, S. T., J. C. Carlson, H. E. McLean, C. S. Olson, and S. J. Werner. 2020. Repellent surface applications for pest birds. *Human-Wildlife Interactions*, 14(3), 409-418. Retrieved from www.scopus.com

DeLong, J. A., S. Saito, C.-L. Xiao, and R. P. Naegele. 2020. Population genetics and fungicide resistance of *Botrytis cinerea* on *Vitis* and *Prunus* spp. in California. *Phytopathology*, 110(3), 694–702. <https://doi.org/10.1094/phyto-09-19-0362-r>

Dharmarha, V., G. Guron, R. R. Boyer, B. A. Niemira, A. Pruden, L. K. Strawn, and M. A. Ponder. 2019. Gamma irradiation influences the survival and regrowth of antibiotic-resistant bacteria and antibiotic-resistance genes on romaine lettuce. *Frontiers in Microbiology*, 10(APR). <https://doi.org/10.3389/fmicb.2019.00710>

Dhekney, S. A., S. K. Sessions, M. Brungart-Rosenberg, C. Claflin, Z. T. Li, and D. J. Gray. 2019. Genetic modification of grapevine embryogenic cultures. *Methods in Molecular Biology*, 1864, pp. 191-201. https://doi.org/10.1007/978-1-4939-8778-8_14

Ding, Y., P. R. Weckwerth, E. Poretsky, K. M. Murphy, J. Sims, E. Saldivar, S. A. Christensen, S. N. Char, B. Yang, A. -D. Tong, Z. Shen, K. A. Kremling, E. S. Buckler, T. Kono, D. R. Nelson, J. Bohlmann, M. G. Bakker, M. M. Vaughan, A. S. Khalil, M. Betsiashvili, K. Dressano, T. G. Köllner, S. P. Briggs, P. Zerbe, E. A. Schmelz, and A. Huffaker. 2020. Genetic elucidation of interconnected antibiotic pathways mediating maize innate immunity. *Nature Plants*. <https://doi.org/10.1038/s41477-020-00787-9>

Dittoe, D. K., R. D. Barabote, M. J. Rothrock, and S. C. Ricke. 2020. Assessment of a potential role of *Dickeya dadantii* DSM 18020 as a pectinase producer for utilization in poultry diets based on *in silico* analyses. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.00751>

Domingues, L. N., G. D. Solis, K. G. Bendele, L. D. Foil, A. A. P. de Leon, and F. D. Guerrero. 2020. Sequence and transcript expression of the super-*kdr* locus of the horn fly, *Haematobia irritans*. *Medical and Veterinary Entomology*, 34(3), 374–378.

<https://doi.org/10.1111/mve.12442>

Doster, E., K. M. Thomas, M. D. Weinroth, J. K. Parker, K. K. Crone, T. M. Arthur, J. W. Schmidt, T. L. Wheeler, K. E. Belk, and P. S. Morley. 2020. Metagenomic characterization of the microbiome and resistome of retail ground beef products. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.541972>

Duarte, A., N. Botteldoorn, W. G. Miller, W. Coucke, D. Martiny, M. Hallin, T. Seliwiorstow, L. De Zutter, M. Uyttendaele, O. Vandenberg, K. Dierick. 2019. Relation between broiler and human *Campylobacter jejuni* strains isolated in Belgium from 2011 to 2013. *Journal of Applied Microbiology*, 126(1), 277-287. <https://doi.org/10.1111/jam.14132>

Ducey, T. F., L. M. Durso, A. M. Ibekwe, R. S. Dungan, C. R. Jackson, J. G. Frye, B. L. Castleberry, D. M. C. Rashash, M. J. Rothrock, D. Boykin, T. R. Whitehead, Z. Ramos, M. McManus, and K. L. Cook. 2020. A newly developed *Escherichia coli* isolate panel from a cross section of U.S. animal production systems reveals geographic and commodity-based differences in antibiotic resistance gene carriage. *Journal of Hazardous Materials*, 382. <https://doi.org/10.1016/j.jhazmat.2019.120991>

Duerschner, J., S. Bartelt-Hunt, K. M. Eskridge, J. E. Gilley, X. Li, A. M. Schmidt, and D. D. Snow. 2020. Swine slurry characteristics as affected by selected additives and disinfectants. *Environmental Pollution*, 260. <https://doi.org/10.1016/j.envpol.2020.114058>

Dundore-Arias, J. P., S. C. Castle, L. Felice, R. Dill-Macky, and L. L. Kinkel. 2020. Carbon amendments influence composition and functional capacities of indigenous soil microbiomes. *Frontiers in Molecular Biosciences*, 6. <https://doi.org/10.3389/fmolb.2019.00151>

Dungan, R. S., and D. L. Bjorneberg. 2021. Antimicrobial resistance in *Escherichia coli* and Enterococcal isolates from irrigation return flows in a high-desert watershed. *Frontiers in Microbiology*, 12. <https://doi.org/10.3389/fmicb.2021.660697>

Dungan, R. S., and D. L. Bjorneberg. 2020. Antibiotic resistance genes, class 1 integrons, and IncP-1/IncQ-1 plasmids in irrigation return flows. *Environmental Pollution*, 257. <https://doi.org/10.1016/j.envpol.2019.113568>

Dungan, R. S., C. A. Strausbaugh, and A. B. Leytem. 2019. Survey of selected antibiotic resistance genes in agricultural and non-agricultural soils in south-central Idaho. *FEMS Microbiology Ecology*, 95(6). <https://doi.org/10.1093/femsec/fiz071>

Dunlap, C. A., M. J. Bowman, and D. R. Zeigler. 2020. Promotion of *Bacillus subtilis* subsp. *inaquosorum*, *Bacillus subtilis* subsp. *spizizenii* and *Bacillus subtilis* subsp. *stercoris* to species status. *Antonie van Leeuwenhoek, International Journal of General and Molecular Microbiology*, 113(1). <https://doi.org/10.1007/s10482-019-01354-9>

Durso, L. M., and K. L. Cook. 2019. One health and antibiotic resistance in agroecosystems. *EcoHealth*, 16(3), 414-419. <https://doi.org/10.1007/s10393-018-1324-7>

Dutta, E., J. D. Loy, C. A. Deal, E. L. Wynn, M. L. Clawson, J. Clarke, and B. Wang. 2021. Development of a multiplex real-time PCR assay for predicting macrolide and tetracycline resistance associated with bacterial pathogens of bovine respiratory disease. *Pathogens*, 10(1), 1-21. <https://doi.org/10.3390/pathogens10010064>

Elbediwi, M., Y. Tang, D. Shi, H. Ramadan, Y. Xu, S. Xu, Y. Li, and M. Yue. 2021. Genomic investigation of antimicrobial-resistant *Salmonella enterica* isolates from dead chick embryos in China. *Frontiers in Microbiology*, 12. <https://doi.org/10.3389/fmicb.2021.684400>

Elhadidy, M., M. M. Ali, A. El-Shibiny, W. G. Miller, W. F. Elkhatib, N. Botteldoorn, and K. Dierick. 2020. Antimicrobial resistance patterns and molecular resistance markers of *Campylobacter jejuni* isolates from human diarrheal cases. *PLoS ONE*, 15(1). <https://doi.org/10.1371/journal.pone.0227833>

Elhadidy, M., W. G. Miller, H. Arguello, A. Álvarez-Ordóñez, K. Dierick, and N. Botteldoorn. 2019. Molecular epidemiology and antimicrobial resistance mechanisms of *Campylobacter coli* from diarrhoeal patients and broiler carcasses in Belgium. *Transboundary and Emerging Diseases*, 66(1), 463-475. <https://doi.org/10.1111/tbed.13046>

Emam, A. M., and C. A. Dunlap. 2020. Genomic and phenotypic characterization of *Bacillus velezensis* AMB-y1; a potential probiotic to control pathogens in aquaculture. *Antonie van Leeuwenhoek, International Journal of General and Molecular Microbiology*. <https://doi.org/10.1007/s10482-020-01476-5>

Epp Schmidt, D. J., D. J. Kotze, E. Hornung, H. Setälä, I. Yesilonis, K. Szlavecz, M. Dombos, R. Pouyat, S. Cilliers, Z. Tóth, and S. Yarwood. 2019. Metagenomics reveals bacterial and archaeal adaptation to urban land-use: N catabolism, methanogenesis, and nutrient acquisition. *Frontiers in Microbiology*, 10. <https://doi.org/10.3389/fmicb.2019.02330>

Essarioui, A., N. LeBlanc, L. Otto-Hanson, D. C. Schlatter, H. C. Kistler, and L. L. Kinkel. 2020. Inhibitory and nutrient use phenotypes among coexisting *Fusarium* and *Streptomyces* populations suggest local coevolutionary interactions in soil. *Environmental Microbiology*, 22(3), 976–985. <https://doi.org/10.1111/1462-2920.14782>

- Fan, S., D. Foster, W. G. Miller, J. Osborne, and S. Kathariou. 2021. Impact of ceftiofur administration in steers on the prevalence and antimicrobial resistance of *Campylobacter* spp. *Microorganisms*, 9(2), 1-16. <https://doi.org/10.3390/microorganisms9020318>
- Farmer, B. D., S. A. Fuller, B. H. Beck, J. W. Abernathy, M. D. Lange, and C. D. Webster. 2020. Differential susceptibility of white bass (*Morone chrysops*), striped bass (*Morone saxatilis*) and hybrid striped bass (*M. chrysops* × *M. saxatilis*) to *Flavobacterium columnare* and effects of mucus on bacterial growth and biofilm development. *Journal of Fish Diseases*. <https://doi.org/10.1111/jfd.13272>
- Feldgarden, M., V. Brover, N. Gonzalez-Escalona, J. G. Frye, J. Haendiges, D. H. Haft, J. B. Pettengill, A. B. Prasad, G. E. Tillman, G. H. Tyson, and W. Klimke. 2021. AMRFinderPlus and the reference gene catalog facilitate examination of the genomic links among antimicrobial resistance, stress response, and virulence. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-91456-0>
- Feldgarden, M., V. Brover, D. H. Haft, A. B. Prasad, D. J. Slotta, I. Tolstoy, G. H. Tyson, S. Zhao, C. -H. Hsu, P. F. McDermott, D. A. Tadesse, C. Morales, M. Simmons, G. Tillman, J. Wasilenko, J. P. Folster, and W. Klimke. 2020. Erratum for Feldgarden *et al.*, “Validating the AMRFinder tool and resistance gene database by using antimicrobial resistance genotype-phenotype correlations in a collection of isolates” *Antimicrobial Agents and Chemotherapy*, 64(4). <https://doi.org/10.1128/AAC.00361-20>
- Feldgarden, M., V. Brover, D. H. Haft, A. B. Prasad, D. J. Slotta, I. Tolstoy, G. H. Tyson, S. Zhao, C. -H. Hsu, P. F. McDermott, D. A. Tadesse, C. Morales, M. Simmons, G. Tillman, J. Wasilenko, J. P. Folster, and W. Klimke. 2019. Validating the AMRFINDER tool and resistance gene database by using antimicrobial resistance genotype-phenotype correlations in a collection of isolates. *Antimicrobial Agents and Chemotherapy*, 63(11). <https://doi.org/10.1128/AAC.00483-19>
- Ference, C. M., J. A. Manthey, J. A. Narciso, J. B. Jones, and E. A. Baldwin. 2020. Detection of phenylpropanoids in citrus leaves produced in response to *Xanthomonas citri* subsp. *citri*. *Phytopathology*, 110(2), 287–296. <https://doi.org/10.1094/PHYTO-06-19-0219-R>
- Ferket, P. R., R. D. Malheiros, V. M. B. Moraes, A. A. Ayoola, I. Barasch, O. T. Toomer, and J. Torrent. 2020. Effects of functional oils on the growth, carcass and meat characteristics, and intestinal morphology of commercial turkey toms. *Poultry Science*, 99(7), 3752–3760. <https://doi.org/10.1016/j.psj.2020.03.050>
- Feye, K. M., C. L. Swaggerty, M. H. Kogut, S. C. Ricke, A. Piva, and E. Grilli. 2020. The biological effects of microencapsulated organic acids and botanicals induces tissue-specific and dose-dependent changes to the *Gallus gallus* microbiota. *BMC Microbiology*, 20(1). <https://doi.org/10.1186/s12866-020-02001-4>

Filatova, L., D. Donovan, S. Swift, V. Pugachev, G. Emelianov, T. Chubar, and N. Klaychko. 2019. Kinetics of inactivation of staphylolytic enzymes: Qualitative and quantitative description. *Biochimie*, 162, 77-87. <https://doi.org/10.1016/j.biochi.2019.04.005>

Franklin, A. B., A. M. Ramey, K. T. Bentler, N. L. Barrett, L. M. McCurdy, C. A. Ahlstrom, J. Bonnedahl, S. A. Shriner, and J. C. Chandler. 2020. Gulls as sources of environmental contamination by colistin-resistant bacteria. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-61318-2>

Friedman, M., C. C. Tam, L. W. Cheng, and K. M. Land. 2020. Anti-trichomonad activities of different compounds from foods, marine products, and medicinal plants: A review. *Bmc Complementary Medicine and Therapies*, 20(1). <https://doi.org/10.1186/s12906-020-03061-9>

Gao, Q., Q. Dong, L. Wu, Y. Yang, L. Hale, Z. Qin, C. Xie, Q. Zhang, J. D. Van Nostrand, and J. Zhou. 2020. Environmental antibiotics drives the genetic functions of resistome dynamics. *Environment International*, 135. <https://doi.org/10.1016/j.envint.2019.105398>

Ge, L., Z. Zhou, K. Sun, B. Huang, D. Stanley, and Q. S. Song. 2020. The antibiotic jinggangmycin increases brown planthopper (BPH) fecundity by enhancing rice plant sugar concentrations and BPH insulin-like signaling. *Chemosphere*, 249. <https://doi.org/10.1016/j.chemosphere.2020.126463>

Gent, D. H., M. Block, and B. J. Claassen. 2020. High levels of insensitivity to phosphonate fungicides in *Pseudoperonospora humuli*. *Plant Disease*, 104(5), 1400–1406. <https://doi.org/10.1094/pdis-10-19-2067-re>

Ghatak, S., Y. He, S. Reed, and P. Irwin. 2020. Comparative genomic analysis of a multidrug-resistant *Campylobacter jejuni* strain YH002 isolated from retail beef liver. *Foodborne Pathogens and Disease*, 17(9), 576-584. <https://doi.org/10.1089/fpd.2019.2770>

Ghosh, A., E. V. Zhu, H. Wang, L. Zurek, and J. J. Zhu. 2021. Antibacterial activities of nepetalactones against public health-related pathogens. *Natural Product Communications*, 16(3). <https://doi.org/10.1177/1934578X211004875>

Gong, R., L. Yu, Y. Qin, N. P. J. Price, X. He, Z. Deng, and W. Chen. 2021. Harnessing synthetic biology-based strategies for engineered biosynthesis of nucleoside natural products in actinobacteria. *Biotechnology Advances*, 46. <https://doi.org/10.1016/j.biotechadv.2020.107673>

Gonzalez, S., R. B. Harvey, H. Morgan Scott, S. D. Lawhon, J. Vinasco, L. Mariño-Ramírez, and K. N. Norman. 2019. Whole-genome sequences of *Salmonella enterica* serovar I 4,[5],12:i:- isolates from swine. *Microbiology Resource Announcements*, 8(21). <https://doi.org/10.1128/MRA.00223-19>

Good, L., W. G. Miller, J. Niedermeyer, J. Osborne, R. M. Siletzky, D. Carver, and S. Kathariou. 2019. Strain-specific differences in survival of *Campylobacter* spp. in naturally contaminated turkey feces and water. *Applied and Environmental Microbiology*, 85(22).

<https://doi.org/10.1128/AEM.01579-19>

Grosicki, G. J., B. L. Riemann, A. A. Flatt, T. Valentino, and M. S. Lustgarten. 2020. Self-reported sleep quality is associated with gut microbiome composition in young, healthy individuals: A pilot study. *Sleep Medicine*, 73, 76–81.

<https://doi.org/10.1016/j.sleep.2020.04.013>

Grover, S., B. Wojahn, S. Varsani, S. E. Sattler, and J. Louis. 2019. Resistance to greenbugs in the sorghum nested association mapping population. *Arthropod-Plant Interactions*, 13(2), 261-269. <https://doi.org/10.1007/s11829-019-09679-y>

Grover, S., E. Agpawa, G. Sarath, S. E. Sattler, and J. Louis. 2020. Interplay of phytohormones facilitate sorghum tolerance to aphids. *Plant Molecular Biology*. <https://doi.org/10.1007/s11103-020-01083-y>

Gu, G., L. K. Strawn, A. R. Ottesen, P. Ramachandran, E. A. Reed, J. Zheng, R. R. Boyer, and S. L. Rideout. 2021. Correlation of *Salmonella enterica* and *Listeria monocytogenes* in irrigation water to environmental factors, fecal indicators, and bacterial communities. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.557289>

Gu, G., A. Ottesen, S. Bolten, Y. Luo, S. Rideout, and X. Nou. 2020. Microbiome convergence following sanitizer treatment and identification of sanitizer resistant species from spinach and lettuce rinse water. *International Journal of Food Microbiology*, 318. <https://doi.org/10.1016/j.ijfoodmicro.2019.108458>

Guernier-Cambert, V., J. Trachsel, J. Maki, J. Qi, M. J. Sylte, Z. Hanafy, S. Kathariou, and T. Looft. 2021. Natural horizontal gene transfer of antimicrobial resistance genes in *Campylobacter* spp. from turkeys and swine. *Frontiers in Microbiology*, 12, art. no. 732969.

<https://doi.org/10.3389/fmicb.2021.732969>

Guernier-Cambert, V., A. Chamings, F. Collier, and S. Alexandersen. 2021. Diverse bacterial resistance genes detected in fecal samples from clinically healthy women and infants in Australia—A descriptive pilot study. *Frontiers in Microbiology*, 12, art. no. 596984.

<https://doi.org/10.3389/fmicb.2021.596984>

Gupta, S. K., P. Sharma, E. A. McMillan, C. R. Jackson, L. M. Hiott, T. Woodley, S. B. Humayoun, J. B. Barrett, J. G. Frye, and M. McClelland. 2019. Genomic comparison of diverse *Salmonella* serovars isolated from swine. *PLoS ONE*, 14(11).

<https://doi.org/10.1371/journal.pone.0224518>

Gupta, S. K., P. Sharma, J. B. Barrett, L. M. Hiott, T. A. Woodley, J. G. Frye, and C. R. Jackson. 2019. Draft genome sequence of a human-associated streptogramin-resistant *Staphylococcus aureus*. *Journal of Global Antimicrobial Resistance*, 16, 72-73.

<https://doi.org/10.1016/j.jgar.2018.11.021>

Gurmessa, B., V. Milanovic, E. Foppa Pedretti, G. Corti, A. J. Ashworth, L. Aquilanti, I. Ferrocino, M. Rita Corvaglia, and S. Cocco. 2021. Post-digestate composting shifts microbial composition and degrades antimicrobial resistance genes. *Bioresource Technology*, 340.

<https://doi.org/10.1016/j.biortech.2021.125662>

Gurmessa, B., A. J. Ashworth, Y. Yang, M. Savin, P. A. Moore, S. C. Ricke, G. Corti, E. F. Pedretti, and S. Cocco. 2021. Variations in bacterial community structure and antimicrobial resistance gene abundance in cattle manure and poultry litter. *Environmental Research*, 197.

<https://doi.org/10.1016/j.envres.2021.111011>

Guron, G. K. P., G. Arango-Argoty, L. Zhang, A. Pruden, and M. A. Ponder. 2019. Effects of dairy manure-based amendments and soil texture on lettuce- and radish-associated microbiota and resistomes. *MSphere*, 4(3). <https://doi.org/10.1128/mSphere.00239-19>

Gutema, F. D., G. Rasschaert, G. E. Agga, O. Merera, A. B. Duguma, R. D. Abdi, L. Duchateau, W. Mattheus, S. Gabriël, and L. De Zutter. 2021. Prevalence, antimicrobial resistance, and molecular characterization of *Salmonella* in cattle, beef, and diarrheic patients in Bishoftu, Ethiopia. *Foodborne Pathogens and Disease*, 18(4), 283-289.

<https://doi.org/10.1089/fpd.2020.2869>

Gutema, F. D., G. Rasschaert, G. E. Agga, A. Jufare, A. B. Duguma, R. D. Abdi, L. Duchateau, F. Crombe, S. Gabriel, and L. De Zutter. 2021. Occurrence, molecular characteristics, and antimicrobial resistance of *Escherichia coli* O157 in cattle, beef, and humans in Bishoftu Town, Central Ethiopia. *Foodborne Pathogens and Disease*, 18(1), 1-7.

<https://doi.org/10.1089/fpd.2020.2830>

Haley, B. J., S. -W. Kim, S. Salaheen, E. Hovingh, and J. A. S. Van Kessel. 2020. Differences in the microbial community and resistome structures of feces from preweaned calves and lactating dairy cows in commercial dairy herds. *Foodborne Pathogens and Disease*, 17(8), 494-503.

<https://doi.org/10.1089/fpd.2019.2768>

Haley, B. J., S. W. Kim, J. Haendiges, E. Keller, D. Torpey, A. Kim, K. Crocker, R. A. Myers, and J. A. S. Van Kessel. 2019. *Salmonella enterica* serovar Kentucky recovered from human clinical cases in Maryland, USA (2011–2015). *Zoonoses and Public Health*, 66(4), 382-392.

<https://doi.org/10.1111/zph.12571>

Hall, M. C., J. Duerschner, J. E. Gilley, A. M. Schmidt, S. L. Bartelt-Hunt, D. D. Snow, K. M. Eskridge, and X. Li. 2021. Antibiotic resistance genes in swine manure slurry as affected by pit

additives and facility disinfectants. *Science of the Total Environment*, 761. <https://doi.org/10.1016/j.scitotenv.2020.143287>

Hall, Maria C., N. A. Mware, J. E. Gilley, S. L. Bartelt-Hunt, D. D. Snow, A. M. Schmidt, K. M. Eskridge, and X. Li. 2020. Influence of setback distance on antibiotics and antibiotic resistance genes in runoff and soil following the land application of swine manure slurry. *Environmental Science & Technology*, 54(8), 4800–4809. <https://doi.org/10.1021/acs.est.9b04834>

Harrison, L., S. Mukherjee, C. Hsu, S. Young, E. Strain, Q. Zhang, G. E. Tillman, C. Morales, J. Haro, and S. Zhao. 2021. Core genome MLST for source attribution of *Campylobacter coli*. *Frontiers in Microbiology*, 12. <https://doi.org/10.3389/fmicb.2021.703890>

Harvey, R. B., K. N. Norman, R. C. Anderson, and D. J. Nisbet. 2020. A preliminary study on the presence of *Salmonella* in lymph nodes of sows at processing plants in the United States. *Microorganisms*, 8(10), 1-6. <https://doi.org/10.3390/microorganisms8101602>

Hawkins, J. L., J. Uknalis, T. P. Oscar, J. G. Schwarz, B. Vimini, and S. Parveen. 2019. The effect of previous life cycle phase on the growth kinetics, morphology, and antibiotic resistance of *Salmonella* Typhimurium DT104 in brain heart infusion and ground chicken extract. *Frontiers in Microbiology*, 10(MAY). <https://doi.org/10.3389/fmicb.2019.01043>

He, S., and X. Shi. 2021. Microbial food safety in China: past, present, and future. *Foodborne Pathogens and Disease*, 18 (8), 510-518. <https://doi.org/10.1089/fpd.2021.0009>

He, Y., S. Reed, and T. P. Strobaugh. 2020. Complete genome sequence and annotation of *Campylobacter jejuni* YH003, isolated from retail chicken. *Microbiology Resource Announcements*, 9(4). <https://doi.org/10.1128/MRA.01307-19>

He, Y. H., X. J. Zhou, Z. Y. Chen, X. Y. Deng, A. Gehring, H. Y. Ou, L. D. Zhang, and X. M. Shi. 2020. PRAP: Pan resistome analysis pipeline. *BMC Bioinformatics*, 21(1). <https://doi.org/10.1186/s12859-019-3335-y>

He, Z. 2020. Organic animal farming and comparative studies of conventional and organic manures. *Animal manure: Production, characteristics, environmental concerns, and management* (pp. 165-182). <https://doi.org/10.2134/asaspecpub67.c9>

Headd, B., and S. A. Bradford. 2020. The conjugation window in an *Escherichia coli* K-12 strain with an IncFII plasmid. *Applied and Environmental Microbiology*, 86(17). <https://doi.org/10.1128/AEM.00948-20>

Helm, E. T., S. Curry, J. M. Trachsel, M. Schroyen, and N. K. Gabler. 2019. Evaluating nursery pig responses to in-feed sub-therapeutic antibiotics. *PLoS ONE*, 14(4). <https://doi.org/10.1371/journal.pone.0216070>

Hering, J., E. Dunevall, A. Snijder, P. Eriksson, M. A. Jackson, T. M. Hartman, R. Ting, H. Chen, N. P. J. Price, G. Brandén, and M. Ek. 2020. Exploring the active site of the antibacterial target MraY by modified tunicamycins. *ACS Chemical Biology*, 15(11), 2885-2895.

<https://doi.org/10.1021/acscchembio.0c00423>

Holman, D.B., K. E. Gzyl, K. T. Mou, and H. K. Allen. 2021. Weaning age and its effect on the development of the swine gut microbiome and resistome. *mSystems*, 6 (6), art. no. e00682-21.

<https://doi.org/10.1128/mSystems.00682-21>

Hsu, T., M. R. Gemmell, E. A. Franzosa, S. Berry, I. Mukhopadhyaya, R. Hansen, M. Michaud, H. Nielsen, W. G. Miller, H. Nielsen, M. Bajaj-Elliott, C. Huttenhower, W. S. Garrett, and G. L. Hold. 2019. Comparative genomics and genome biology of *Campylobacter showae*. *Emerging Microbes and Infections*, 8(1), 827-840. <https://doi.org/10.1080/22221751.2019.1622455>

Huang, X., M. Hu, X. Zhou, Y. Liu, C. Shi, and X. Shi. 2020. Role of *yoeA* gene regulated by CpxR in the survival of *Salmonella enterica* serovar Enteritidis in antibacterial egg white.

MSphere, 5(1). <https://doi.org/10.1128/mSphere.00638-19>

Hurley, D., L. Luque-Sastre, C. T. Parker, S. Huynh, A. K. Eshwar, S. V. Nguyen, N. Andrews, A. Moura, E. M. Fox, K. Jordan, A. Lehner, R. Stephan, and S. Fanning. 2019. Whole-genome sequencing-based characterization of 100 *Listeria monocytogenes* isolates collected from food processing environments over a four-year period. *MSphere*, 4(4).

<https://doi.org/10.1128/mSphere.00252-19>

Hwang, D., M. J. Rothrock, H. Pang, M. Guo, and A. Mishra. 2020. Predicting *Salmonella* prevalence associated with meteorological factors in pastured poultry farms in southeastern United States. *Science of the Total Environment*, 713.

<https://doi.org/10.1016/j.scitotenv.2019.136359>

Hwang, D., M. J. Rothrock, H. Pang, G. D. Kumar, and A. Mishra. 2020. Farm management practices that affect the prevalence of *Salmonella* in pastured poultry farms. *Lwt-Food Science and Technology*, 127.

<https://doi.org/10.1016/j.lwt.2020.109423>

Ibekwe, A., L. Durso, T. F. Ducey, A. Oladeinde, C. R. Jackson, J. G. Frye, R. Dungan, T. Moorman, J. P. Brooks, A. Obayiuwana, H. Karathia, B. Fanelli, and N. Hasan. 2021. Diversity of plasmids and genes encoding resistance to extended-spectrum β -Lactamase in *Escherichia coli* from different animal sources. *Microorganisms*, 9(5).

<https://doi.org/10.3390/microorganisms9051057>

Indugu, N., L. Sharma, C. R. Jackson, and P. Singh. 2020. Whole-genome sequence analysis of multidrug-resistant *Enterobacter hormaechei* isolated from imported retail shrimp. *Microbiology Resource Announcements*, 9(50).

<https://doi.org/10.1128/MRA.01103-20>

Jackson, C. R., J. G. Frye, and S. Cho. 2020. Antimicrobial-resistant pathogens in water. *Letters in Applied Microbiology*, 71(1), 2. <https://doi.org/10.1111/lam.13340>

Johnson, C. N., M. M. Hashim, C. A. Bailey, J. A. Byrd, M. H. Kogut, and R. J. Arsenault. 2020. Feeding of yeast cell wall extracts during a necrotic enteritis challenge enhances cell growth, survival and immune signaling in the jejunum of broiler chickens. *Poultry Science*, 99(6), 2955–2966. <https://doi.org/10.1016/j.psj.2020.03.012>

Johnson, E. T., M. J. Bowman, and C. A. Dunlap. 2020. *Brevibacillus fortis* NRS-1210 produces edeines that inhibit the in vitro growth of conidia and chlamydo spores of the onion pathogen *Fusarium oxysporum* f. sp. *cepae*. *Antonie van Leeuwenhoek, International Journal of General and Molecular Microbiology*, 113(7), 973–987. <https://doi.org/10.1007/s10482-020-01404-7>

Jurick II, W. M., H. Peng, H. S. Beard, W. M. Garrett, F. J. Lichtner, D. Luciano-Rosario, O. Macarisin, Y. Liu, K. A. Peter, V. L. Gaskins, T. Yang, J. Mowery, G. Bauchan, N. P. Keller, and B. Cooper. 2020. Blistering1 modulates *Penicillium expansum* virulence via vesicle-mediated protein secretion. *Molecular and Cellular Proteomics*, 19(2), 344–361. <https://doi.org/10.1074/mcp.RA119.001831>

Kagambèga, A., S. Belem, E. A. McMillan, L. M. Hiott, H. Ramadan, D. K. Soro, P. Sharma, S. K. Gupta, N. Barro, C. R. Jackson, and J. G. Frye. 2021. Genome analysis of *Salmonella* strains isolated from imported frozen fish in Burkina Faso. *Annals of Microbiology*, 71(1). <https://doi.org/10.1186/s13213-021-01642-8>

Kanipe, C., and M. V. Palmer. 2020. *Mycobacterium bovis* and you: A comprehensive look at the bacteria, its similarities to *Mycobacterium tuberculosis*, and its relationship with human disease. *Tuberculosis*, 125. <https://doi.org/10.1016/j.tube.2020.102006>

Kasumba, J., K. Appala, G. E. Agga, J. H. Loughrin, and E. D. Conte. 2020. Anaerobic digestion of livestock and poultry manures spiked with tetracycline antibiotics. *Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes*, 55(2), 135-147. <https://doi.org/10.1080/03601234.2019.1667190>

Kibuye, F. A., H. E. Gall, T. L. Veith, K. R. Elkin, H. A. Elliott, J. P. Harper, and J. E. Watson. 2020. Influence of hydrologic and anthropogenic drivers on emerging organic contaminants in drinking water sources in the Susquehanna River Basin. *Chemosphere*, 245, 125583. <https://doi.org/10.1016/j.chemosphere.2019.125583>

Kim, J. H., L. W. Cheng, K. M. Land, and M. C. H. Gruhlke. 2021. Editorial: redox-active molecules as antimicrobials: mechanisms and resistance. *Frontiers in Microbiology*, 12, art. no. 758750. <https://doi.org/10.3389/fmicb.2021.758750>

- Kim, S. W., J. A. S. Van Kessel, and B. J. Haley. 2021. Genome sequences of antibiotic-resistant *Escherichia coli* isolated from veal calves in the USA. *Journal of Global Antimicrobial Resistance*, 26, 69-73. <https://doi.org/10.1016/j.jgar.2021.04.024>
- Klein, J. M., V. O. Stockwell, G. V. Minsavage, G. E. Vallad, E. M. Goss, and J. B. Jones. 2020. Improved deferred antagonism technique for detecting antibiosis. *Letters in Applied Microbiology*, 71(4), 330–336. <https://doi.org/10.1111/lam.13339>
- Klopp, R.N., I. Yoon, S. Eicher, and J. P. Boerman. 2021. Effects of feeding *Saccharomyces cerevisiae* fermentation products on the health of Holstein dairy calves following a lipopolysaccharide challenge. *Journal of Dairy Science*. <https://doi.org/10.3168/jds.2021-20341>
- Kovalskaya, N. Y., E. E. Herndon, J. A. Foster-Frey, D. M. Donovan, and R. W. Hammond. 2019. Antimicrobial activity of bacteriophage derived triple fusion protein against *Staphylococcus aureus*. *AIMS Microbiology*, 5(2), 158-175. <https://doi.org/10.3934/microbiol.2019.2.158>
- Kozhar, O., M. M. Larsen, N. J. Grunwald, and T. L. Peever. 2020. Fungal Evolution in Anthropogenic Environments: *Botrytis cinerea* Populations Infecting Small Fruit Hosts in the Pacific Northwest Rapidly Adapt to Human-Induced Selection Pressures. *Applied and Environmental Microbiology*, 86(9). <https://doi.org/10.1128/aem.02908-19>
- Kumar, S., M. Singh, D. E. Cosby, N. A. Cox, and H. Thippareddi. 2020. Efficacy of peroxy acetic acid in reducing *Salmonella* and *Campylobacter* spp. populations on chicken breast fillets. *Poultry Science*, 99(5), 2655-2661. <https://doi.org/10.1016/j.psj.2019.12.045>
- Kurt, T., N. Wong, H. Fowler, C. Gay, H. Lillehoj, P. Plummer, H. M. Scott, and K. Hoelzer. 2019. Strategic priorities for research on antibiotic alternatives in animal agriculture—results from an expert workshop. *Frontiers in Veterinary Science*, 6. <https://doi.org/10.3389/fvets.2019.00429>
- Lamori, J. G., J. Xue, A. T. Rachmadi, G. U. Lopez, M. Kitajima, C. P. Gerba, I. L. Pepper, J. P. Brooks, and S. Sherchan. 2019. Removal of fecal indicator bacteria and antibiotic resistant genes in constructed wetlands. *Environmental Science and Pollution Research*, 26(10), 10188-10197. <https://doi.org/10.1007/s11356-019-04468-9>
- Larson, N. R., A. Zhang, and M. F. Feldlaufer. 2020. Fumigation activities of methyl benzoate and its derivatives against the common bed bug (Hemiptera: Cimicidae). *Journal of Medical Entomology*, 57(1), 187–191. <https://doi.org/10.1093/jme/tjz138>
- Lee, A., G. C. Dal Pont, M. B. Farnell, S. Jarvis, M. Battaglia, R. J. Arsenault, and M. H. Kogut. 2020. Supplementing chestnut tannins in the broiler diet mediates a metabolic phenotype of the ceca. *Poultry Science*. <https://doi.org/10.1016/j.psj.2020.09.085>

Levent, G., A. Schlochtermeyer, S. E. Ives, K. N. Norman, S. D. Lawhon, G. H. Loneragan, R. C. Anderson, J. Vinasco, H. C. den Bakker, and H. M. Scott. 2021. High-resolution genomic comparisons within *Salmonella enterica* serotypes derived from beef feedlot cattle: parsing the roles of cattle source, pen, animal, sample type, and production period. *Applied and Environmental Microbiology*, 87(12), e0048521. <https://doi.org/10.1128/AEM.00485-21>

Levent, G., A. Schlochtermeyer, S. E. Ives, K. N. Norman, S. D. Lawhon, G. H. Loneragan, R. C. Anderson, J. Vinasco, and H. M. Scott. 2019. Population dynamics of *Salmonella enterica* within beef cattle cohorts followed from single-dose metaphylactic antibiotic treatment until slaughter. *Applied and Environmental Microbiology*, 85(23). <https://doi.org/10.1128/AEM.01386-19>

Li, C., and M. Lu. 2020. Putting antimicrobial resistance in the corner. *Nature Food*, 1(2), 103. <https://doi.org/10.1038/s43016-020-0034-9>

Li, G., Y. Zhao, J. L. Purswell, G. D. Chesser, J. W. Lowe, and T. -L. Wu. 2020. Effects of antibiotic-free diet and stocking density on male broilers reared to 35 days of age. part 2: Feeding and drinking behaviours of broilers. *Journal of Applied Poultry Research*, 29(2), 391-401. <https://doi.org/10.1016/j.japr.2020.01.002>

Li, J. H., J. D. Evans, W. F. Li, Y. Z. Zhao, G. DeGrandi-Hoffman, S. K. Huang, Z. G. Li, M. Hamilton, and Y. P. Chen. 2019. New evidence showing that the destruction of gut bacteria by antibiotic treatment could increase the honey bee's vulnerability to *Nosema* infection. *PLoS ONE*, 12(11). <https://doi.org/10.1371/journal.pone.0187505>

Li, N., X. Zhou, Q. Song, M. Zhou, and X. Shi. 2019. Antimicrobial resistance, virulence, and molecular characterization of aquatic, clinical, and environmental *Vibrio parahaemolyticus* isolated from Ningbo, China. *Journal of Food Safety*, 39(4). <https://doi.org/10.1111/jfs.12650>

Li, S., D. A. Mann, S. Zhang, Y. Qi, R. J. Meinersmann, and X. Deng. 2020. Microbiome-informed food safety and quality: Longitudinal consistency and cross-sectional distinctiveness of retail chicken breast microbiomes. *MSystems*, 5(5). <https://doi.org/10.1128/MSYSTEMS.00589-20>

Li, T., Y. Lu, H. Zhang, L. Wang, R. C. Beier, Y. Jin, W. Wang, H. Li, and X. Hou. 2021. Antibacterial activity and membrane-targeting mechanism of aloe-emodin against *Staphylococcus epidermidis*. *Frontiers in Microbiology*, 12, art. no. 621866. <https://doi.org/10.3389/fmicb.2021.621866>

Li, W., H. Li, S. Zheng, Z. Wang, H. Sheng, C. Shi, X. Shi, Q. Niu, and B. Yang. 2020. Prevalence, serotype, antibiotic susceptibility, and genotype of *Salmonella* in eggs from poultry

farms and Mmarketplaces in Yangling, Shaanxi Province, China. *Frontiers in Microbiology*, 11, art. no. 1482. <https://doi.org/10.3389/fmicb.2020.01482>

Li, W., Y. Jia, F. Liu, F. Wang, F. Fan, J. Wang, J. Zhu, Y. Xu, W. Zhong, and J. Yang. 2019. Integration analysis of small RNA and degradome sequencing reveals microRNAs responsive to *Dickeya zea* in resistant rice. *International Journal of Molecular Sciences*, 20(1). <https://doi.org/10.3390/ijms20010222>

Li, W., Y. -C. Zhu, F. Li, and Y. He. 2020. *In silico* discovery of genes encoding insecticide targets and detoxifying enzymes in *Brevicoryne brassicae* and *Lipaphis erysimi*. *Journal of Asia-Pacific Entomology*, 23(1), 159–166. <https://doi.org/10.1016/j.aspen.2019.12.002>

Lichtner, F. J., V. L. Gaskins, K. D. Cox, and W. M. Jurick. 2020. Global transcriptomic responses orchestrate difenoconazole resistance in *Penicillium* spp. causing blue mold of stored apple fruit. *BMC Genomics*, 21(1). <https://doi.org/10.1186/s12864-020-06987-z>

Lichtner, Franz J., W. M. Jurick II, K. M. Ayer, V. L. Gaskins, S. M. Villani, and K. D. Cox. 2020. A Genome resource for several North American *Venturia inaequalis* isolates with multiple fungicide resistance phenotypes. *Phytopathology*, 110(3), 544–546. <https://doi.org/10.1094/phyto-06-19-0222-a>

Lin, S., L. Fang, X. Kang, S. Liu, M. Liu, E. E. Connor, R. L. Baldwin, G. Liu, and C. -J. Li. 2020. Establishment and transcriptomic analyses of a cattle rumen epithelial primary cells (REPC) culture by bulk and single-cell RNA sequencing to elucidate interactions of butyrate and rumen development. *Heliyon*, 6(6), e04112. <https://doi.org/10.1016/j.heliyon.2020.e04112>

Lippolis, J. D., E. J. Putz, H. Ma, D. P. Alt, E. Casas, and T. A. Reinhardt. 2020. Genome sequence of a *Staphylococcus aureus* strain isolated from a dairy cow that was nonresponsive to antibiotic treatment. *Microbiology Resource Announcements*, 9(20). <https://doi.org/10.1128/MRA.00206-20>

Liu, C. -H., Y. -H. Chuang, H. Li, S. A. Boyd, B. J. Teppen, J. M. Gonzalez, C. T. Johnston, J. Lehmann, and W. Zhang. 2019. Long-term sorption of lincomycin to biochars: The intertwined roles of pore diffusion and dissolved organic carbon. *Water Research*, 161, 108–118. <https://doi.org/10.1016/j.watres.2019.06.006>

Liu, J., W. B. Tuo, X. D. Wu, J. M. Xiong, E. C. Yu, C. Yin, Z. W. Ma, and L. H. Liu. 2020. Immunoproteomic and mass spectrometric analysis of *Eimeria acervulina* antigens recognized by antisera from chickens infected with *E. acervulina*, *E. tenella* or *E. necatrix*. *Parasites & Vectors*, 13(1). <https://doi.org/10.1186/s13071-020-3965-y>

Liu, J., Y. Zhu, M. Jay-Russell, D. G. Lemay, and D. A. Mills. 2020. Reservoirs of antimicrobial resistance genes in retail raw milk. *Microbiome*, 8(1). <https://doi.org/10.1186/s40168-020-00861-6>

Liu, J., D. H. Taft, M. X. Maldonado-Gomez, D. Johnson, M. L. Treiber, D. G. Lemay, E. J. DePeters, and D. A. Mills. 2019. The fecal resistome of dairy cattle is associated with diet during nursing. *Nature Communications*, 10(1). <https://doi.org/10.1038/s41467-019-12111-x>

Liu, L., X. Yan, H. Lillehoj, Z. Sun, H. Zhao, Z. Xianyu, Y. Lee, S. Melville, C. Gu, Y. Wang, M. Lu, and C. Li. 2020. Comparison of the pathogenicity of five *Clostridium perfringens* isolates using an *Eimeria maxima* coinfection necrotic enteritis disease model in commercial broiler chickens. *Avian Diseases*, 64(3), 386–392. <https://doi.org/10.1637/aviandiseases-D-19-00098>

Liu, M. M., S. Coleman, L. Wilkinson, M. L. Smith, T. Hoang, N. Niyah, M. Mukherjee, S. Huynh, C. T. Parker, J. Kovac, R. E. W. Hancock, and E. C. Gaynor. 2020. Unique inducible filamentous motility identified in pathogenic *Bacillus cereus* group species. *ISME Journal*, 14(12), 2997-3010. <https://doi.org/10.1038/s41396-020-0728-x>

Liu, S., C. Skory, and N. Qureshi. 2020. Ethanol tolerance assessment in recombinant *E. coli* of ethanol responsive genes from *Lactobacillus buchneri* NRRL B-30929. *World Journal of Microbiology and Biotechnology*, 36(12). <https://doi.org/10.1007/s11274-020-02953-9>

Liu, Y., and M. J. Filiatrault. 2020. Antibacterial activity and mode of action of potassium tetraborate tetrahydrate against soft-rot bacterial plant pathogens. *Microbiology (United Kingdom)*, 166(9), 837-848. <https://doi.org/10.1099/mic.0.000948>

Loiseau, C., D. Brites, I. Moser, F. Coll, C. Pourcel, S. Robbe-Austerman, V. Escuyer, K. A. Musser, S. J. Peacock, S. Feuerriegel, T. A. Kohl, S. Niemann, S. Gagneux, and C. U. Köser. 2019. Revised interpretation of the Hain Lifescience GenoType MTBC to differentiate *Mycobacterium canettii* and members of the *Mycobacterium tuberculosis* complex. *Antimicrobial Agents and Chemotherapy*, 63(6). <https://doi.org/10.1128/AAC.00159-19>

Lu, S. -Y., C. D. Skory, H. A. El Enshasy, and S. Liu. 2021. Fermentative production of alternative antimicrobial peptides and enzymes. *Biocatalysis and Agricultural Biotechnology*, 37, art. no. 102189. <https://doi.org/10.1016/j.bcab.2021.102189>

Lu, Y., Y. Wen, G. Hu, Y. Liu, R. C. Beier, and X. Hou. 2019. Genomic sequence analysis of the multidrug-resistance region of avian *Salmonella enterica* serovar Indiana strain MHYL. *Microorganisms*, 7(8). <https://doi.org/10.3390/microorganisms7080248>

Lu, M., R. W. Li, H. Zhao, X. Yan, H. S. Lillehoj, Z. Sun, S. Oh, Y. Wang, and C. Li. 2020. Effects of *Eimeria maxima* and *Clostridium perfringens* infections on cecal microbial

composition and the possible correlation with body weight gain in broiler chickens. *Research in Veterinary Science*, 132, 142–149. <https://doi.org/10.1016/j.rvsc.2020.05.013>

Lu, S. -Y., K. M. Bischoff, J. O. Rich, S. Liu, and C. D. Skory. 2020. Recombinant bacteriophage LysKB317 endolysin mitigates *Lactobacillus* infection of corn mash fermentations. *Biotechnology for Biofuels*, 13(1). <https://doi.org/10.1186/s13068-020-01795-9>

Macori, G., S. V. Nguyen, A. Naithani, D. Hurley, L. Bai, F. E. Garch, F. Woehrlé, C. Miossec, B. Roques, P. O’gaora, J. L. Bono, and S. Fanning. 2021. Characterisation of early positive mcr-1 resistance gene and plasmidome in *Escherichia coli* pathogenic strains associated with variable phylogroups under colistin selection. *Antibiotics*, 10(9). <https://doi.org/10.3390/antibiotics10091041>

Maus, A., B. Bisha, C. Fagerquist, and F. Basile. 2020. Detection and identification of a protein biomarker in antibiotic-resistant *Escherichia coli* using intact protein LC offline MALDI-MS and MS/MS. *Journal of Applied Microbiology*, 128(3), 697-709. <https://doi.org/10.1111/jam.14507>

McConn, B. R., A. W. Duttlinger, K. R. Kpodo, S. D. Eicher, B. T. Richert, and J. S. Johnson. 2020. Replacing dietary antibiotics with 0.20% l-glutamine and synbiotics following weaning and transport in pigs. *Journal of Animal Science*, 98(9). <https://doi.org/10.1093/JAS/SKAA272>

Mcgarvey, J. A., T. D. Tran, R. Hnasko, and L. Gorski. 2019. Use of Phyllosphere-associated Lactic Acid Bacteria as Biocontrol Agents to Reduce *Salmonella enterica* Serovar Poona Growth on Cantaloupe Melons. *Journal of Food Protection*, 82(12), 2148-2153. <https://doi.org/10.4315/0362-028X.JFP-19-246>

McKenna, C. H., D. Asgari, T. L. Crippen, L. Zheng, R. A. Sherman, J. K. Tomberlin, R. P. Meisel, and A. M. Tarone. 2021. Gene expression in *Lucilia sericata* (Diptera: Calliphoridae) larvae exposed to *Pseudomonas aeruginosa* and *Acinetobacter baumannii* identifies shared and microbe-specific induction of immune genes. *Insect Molecular Biology*. <https://doi.org/10.1111/imb.12740>

McKinney, C. W., and R. S. Dungan. 2020. Influence of environmental conditions on extracellular and intracellular antibiotic resistance genes in manure-amended soil: A microcosm study. *Soil Science Society of America Journal*, 84(3), 747-759. <https://doi.org/10.1002/saj2.20049>

McMillan, E.A., L. -H. T. Nguyen, L. M. Hiott, P. Sharma, C. R. Jackson, J. G. Frye, and C. -Y. Chen. 2021. Genomic comparison of conjugative plasmids from *Salmonella enterica* and *Escherichia coli* encoding beta-lactamases and capable of mobilizing kanamycin resistance col-like plasmids. *Microorganisms*, 9 (11), art. no. 2205. <https://doi.org/10.3390/microorganisms9112205>

McMillan, E. A., J. L. Wasilenko, K. A. Tagg, J. C. Chen, M. Simmons, S. K. Gupta, G. E. Tillman, J. Folster, C. R. Jackson, and J. G. Frye. 2020. Carriage and gene content variability of the pESI-like plasmid associated with *Salmonella* Infantis recently established in United States poultry production. *Genes*, 11(12), 1-15. <https://doi.org/10.3390/genes11121516>

McMillan, E. A., C. R. Jackson, and J. G. Frye. 2020. Transferable plasmids of *Salmonella enterica* associated with antibiotic resistance genes. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.562181>

McMillan, E. A., S. K. Gupta, L. E. Williams, T. Jové, L. M. Hiott, T. A. Woodley, J. B. Barrett, C. R. Jackson, J. L. Wasilenko, M. Simmons, G. E. Tillman, M. McClelland, and J. G. Frye. 2019. Antimicrobial resistance genes, cassettes, and plasmids present in *Salmonella enterica* associated with United States food animals. *Frontiers in Microbiology*, 10(APR). <https://doi.org/10.3389/fmicb.2019.00832>

McPhillie, M. J., Y. Zhou, M. R. Hickman, J. A. Gordon, C. R. Weber, Q. Li, P. J. Lee, K. Amporndanai, R. M. Johnson, H. Darby, S. Woods, Z. Li, R. S. Priestley, K. D. Ristroph, S. B. Biering, K. El Bissati, S. Hwang, F. E. Hakim, S. M. Dovgin, J. D. Lykins, L. Roberts, K. Hargrave, H. Cong, A. P. Sinai, S. P. Muench, J. P. Dubey, R. K. Prud'homme, H. A. Lorenzi, G. A. Biagini, S. N. Moreno, C. W. Roberts, S. V. Antonyuk, C. W. G. Fishwick, and R. McLeod. 2020. Potent tetrahydroquinolone eliminates apicomplexan parasites. *Frontiers in Cellular and Infection Microbiology*, 10. <https://doi.org/10.3389/fcimb.2020.00203>

Meinersmann, R. J., Berrang, M. E., Bradshaw, J. K., Molina, M., Cosby, D. E., Genzlinger, L. L., and B. J. Snyder. 2020. Recovery of thermophilic *Campylobacter* by three sampling methods from river sites in Northeast Georgia, USA, and their antimicrobial resistance genes. *Letters in Applied Microbiology*, 71(1), 102-107. <https://doi.org/10.1111/lam.13224>

Meinersmann, R. J. 2019. The biology of IncI2 plasmids shown by whole-plasmid multi-locus sequence typing. *Plasmid*, 106. <https://doi.org/10.1016/j.plasmid.2019.102444>

Melo-Bolívar, J. F., R. Y. Ruiz-Pardo, M. E. Hume, H. E. Sidjabat, and L. M. Villamil-Diaz. 2020. Probiotics for cultured freshwater fish. *Microbiology Australia*, 41(2), 105–108. <https://doi.org/10.1071/MA20026>

Mengistu, A., J. D. Ray, H. M. Kelly, B. Lin, H. Yu, J. R. Smith, P. R. Arelli, and N. Bellaloui. 2020. Pathotype grouping of *Cercospora sojina* isolates on soybean and sensitivity to Qol Fungicides. *Plant Disease*, 104(2), 373–380. <https://doi.org/10.1094/pdis-02-19-0368-re>

Meyers, M. A., L. M. Durso, J. E. Gilley, H. M. Waldrip, L. Castleberry, and A. Millmier-Schmidt. 2020. Antibiotic resistance gene profile changes in cropland soil after manure

application and rainfall. *Journal of Environmental Quality*, 49(3), 754-761.
<https://doi.org/10.1002/jeq2.20060>

Meyers, M.A., L. M. Durso, J. E. Gilley, D. N. Miller, X. Li, and A. M. Schmidt. 2020. Setback distance impacts on transport and antibiotic resistance phenotypes of fecal indicators. *Agrosystems, Geosciences and Environment*, 3 (1), art. no. e20081.
<https://doi.org/10.1002/agg2.20081>

Miller, D. N., M. E. Jurgens, L. M. Durso, and A. M. Schmidt. 2020. Simulated winter incubation of soil with swine manure differentially affects multiple antimicrobial resistance elements. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.611912>

Miller, E., M. Spiehs, T. M. Arthur, B. Woodbury, E. Cortus, A. Chatterjee, S. Rahman, and J. W. Schmidt. 2019. Cropland amendment with beef cattle manure minimally affects antimicrobial resistance. *Journal of Environmental Quality*, 48(6), 1683-1693.
<https://doi.org/10.2134/jeq2019.02.0042>

Miller, W. G., E. Yee, and J. L. Bono. 2020. Complete genome sequencing of four *Arcobacter* species reveals a diverse suite of mobile elements. *Genome Biology and Evolution*, 12(2), 3850-3856. <https://doi.org/10.1093/gbe/evaa014>

Millet, P., T. Martin, M. Opiekun, G. K. Beauchamp, and B. A. Kimball. 2021. Differing alterations of odor volatiles among pathogenic stimuli. *Chemical Senses*, 46, art. no. bjab030.
<https://doi.org/10.1093/chemse/bjab030>

Mir, R. A., B. W. Brunelle, D. P. Alt, T. M. Arthur, and I. T. Kudva. 2020. Supershed *Escherichia coli* O157:H7 has potential for increased persistence on the rectoanal junction squamous epithelial cells and antibiotic resistance. *International Journal of Microbiology*, 2020. <https://doi.org/10.1155/2020/2368154>

Mir, R. A., and I. T. Kudva. 2019. Antibiotic-resistant Shiga toxin-producing *Escherichia coli*: An overview of prevalence and intervention strategies. *Zoonoses and Public Health*, 66(1), 1-13.
<https://doi.org/10.1111/zph.12533>

Möhlmann, T. W. R., C. B. F. Vogels, G. P. Göertz, G. P. Pijlman, C. J. F. ter Braak, D. E. te Beest, M. Hendriks, E. H. Nijhuis, S. Warris, B. S. Drolet, L. van Overbeek, and C. J. M. Koenraadt. 2020. Impact of gut bacteria on the infection and transmission of pathogenic arboviruses by biting dipteres and mosquitoes. *Microbial Ecology*, 80(3), 703–717.
<https://doi.org/10.1007/s00248-020-01517-6>

Molin, W. T., A. Yaguchi, M. Blenner, and C. A. Saski. 2020. The EccDNA replicon: a heritable, extranuclear vehicle that enables gene amplification and glyphosate resistance in *Amaranthus palmeri*. *Plant Cell*, 32(7), 2132–2140. <https://doi.org/10.1105/tpc.20.00099>

Muhammad, M., B. Yan, G. Yao, K. Chao, C. Zhu, and Q. Huang. 2020. Surface-enhanced Raman spectroscopy for trace detection of tetracycline and dicyandiamide in milk using transparent substrate of Ag nanoparticle arrays. *ACS Applied Nano Materials*, 3(7), 7066–7075. <https://doi.org/10.1021/acsnm.0c01389>

Mukherjee, M., E. Laird, T. J. Gentry, J. P. Brooks, and R. Karthikeyan. 2021. Increased antimicrobial and multidrug resistance downstream of wastewater treatment plants in an urban watershed. *Frontiers in Microbiology*, 12. <https://doi.org/10.3389/fmicb.2021.657353>

Mukherjee, M., L. Marie, C. Liles, N. Mustafa, G. Bullerjahn, T. J. Gentry, and J. P. Brooks. 2021. Elevated incidences of antimicrobial resistance and multidrug resistance in the Maumee River (Ohio, USA), a major tributary of Lake Erie. *Microorganisms*, 9(5). <https://doi.org/10.3390/microorganisms9050911>

Mukherjee, M., T. Gentry, H. Mjelde, J. P. Brooks, D. Harmel, L. Gregory, and K. Wagner. 2020. *Escherichia coli* Antimicrobial resistance variability in water runoff and soil from a remnant native prairie, an improved pasture, and a cultivated agricultural watershed. *Water (Switzerland)*, 12(5). <https://doi.org/10.3390/W12051251>

Murinda, S. E., A. M. Ibekwe, N. G. Rodriguez, K. L. Quiroz, A. P. Mujica, and K. Osmon. 2019. Shiga toxin-producing *Escherichia coli* in mastitis: an international perspective. *Foodborne Pathogens and Disease*, 16(4), 229-243. <https://doi.org/10.1089/fpd.2018.2491>

Naderi Beni, N., D. D. Snow, E. D. Berry, A. R. Mittelstet, T. L. Messer, and S. Bartelt-Hunt. 2020. Measuring the occurrence of antibiotics in surface water adjacent to cattle grazing areas using passive samplers. *Science of the Total Environment*, 726. <https://doi.org/10.1016/j.scitotenv.2020.138296>

Nazmul Huda, M., J. H. Winnike, J. M. Crowell, A. O'Connor, and B. J. Bennett. 2020. Microbial modulation of host body composition and plasma metabolic profile. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-63214-1>

Neher, T. P., L. Ma, T. B. Moorman, A. Howe, and M. L. Soupir. 2020. Seasonal variations in export of antibiotic resistance genes and bacteria in runoff from an agricultural watershed in Iowa. *Science of the Total Environment*, 738. <https://doi.org/10.1016/j.scitotenv.2020.140224>

Neher, T. P., L. Ma, T. B. Moorman, A. C. Howe, and M. L. Soupir. 2020. Catchment-scale export of antibiotic resistance genes and bacteria from an agricultural watershed in central Iowa. *PLoS ONE*, 15(1). <https://doi.org/10.1371/journal.pone.0227136>

Neupane, S., K. White, J. L. Thomson, L. Zurek, and D. Nayduch. 2020. Environmental and sex effects on bacterial carriage by adult house flies (*Musca domestica* L.). *Insects*, 11(7), 1-12. <https://doi.org/10.3390/insects11070401>

Ngo, H., K. Wagner, Z. Yan, R. A. Moreau, and X. Fan. 2019. Synthesis and anti-listeria properties of odorless hybrid bio-based n-phenolic vegetable branched-chain fatty acids. *JAACS, Journal of the American Oil Chemists' Society*, 96(10), 1093-1101. <https://doi.org/10.1002/aocs.12259>

Nicholson, T. L., U. Waack, T. K. Anderson, D. O. Bayles, S. R. Zaia, I. Goertz, M. Eppinger, S. J. Hau, S. L. Brockmeier, and S. M. Shore. 2021. Comparative virulence and genomic analysis of *Streptococcus suis* isolates. *Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.620843>

Nielsen, D. W., J. J. Maki, T. Looft, N. Ricker, and M. J. Sylte. 2020. Complete genome sequence of *Campylobacter jejuni* strain NADC 20827, isolated from commercial turkeys. *Microbiology Resource Announcements*, 9(1). <https://doi.org/10.1128/MRA.01403-19>

Niu, Y., I. Oyediran, W. Yu, S. Lin, M. Dimase, S. Brown, F. P. F. Reay-Jones, D. Cook, D. Reising, B. Thrash, X. Ni, S. V. Paula-Moraes, Y. Zhang, J. S. Chen, Z. Wen, and F. Huang. 2021. Populations of *Helicoverpa zea* (Boddie) in the southeastern United States are commonly resistant to Cry1Ab, but still susceptible to Vip3Aa20 expressed in MIR 162 corn. *Toxins*, 13(1). <https://doi.org/10.3390/TOXINS13010063>

Nyirabahizi, E., G. H. Tyson, U. Dessai, S. Zhao, C. Kabera, E. Crarey, N. Womack, M. K. Crews, E. Strain, and H. Tate. 2020. Evaluation of *Escherichia coli* as an indicator for antimicrobial resistance in *Salmonella* recovered from the same food or animal ceca samples. *Food Control*, 115. <https://doi.org/10.1016/j.foodcont.2020.107280>

Nyong, E. C., S. R. Zaia, S. R., A. Allué-Guardia, A. L. Rodriguez, Z. Irion-Byrd, S. S. K. Koenig, P. Feng, J. L. Bono, and M. Eppinger. 2020. Pathogenomes of atypical non-shigatoxigenic *Escherichia coli* NSF/SF O157:H7/NM: comprehensive phylogenomic analysis using closed genomes. *Frontiers in Microbiology*, 11, 619. <https://doi.org/10.3389/fmicb.2020.00619>

Obayiuwana, A., A. Ogunjobi, and A. Ibekwe. 2021. Prevalence of antibiotic resistance genes in pharmaceutical wastewaters. *Water (Switzerland)*, 13(13). <https://doi.org/10.3390/w13131731>

Obayiuwana, A., and A. M. Ibekwe. 2020. Antibiotic resistance genes occurrence in wastewaters from selected pharmaceutical facilities in Nigeria. *Water (Switzerland)*, 12(7). <https://doi.org/10.3390/w12071897>

Ogunrinu, O.J., K. N. Norman, J. Vinasco, G. Levent, S. D. Lawhon, V. R. Fajt, V. V. Volkova, T. Gaire, T. L. Poole, K. J. Genovese, T. E. Wittum, and H. M. Scott. 2020. Can the use of older-

generation beta-lactam antibiotics in livestock production over-select for beta-lactamases of greatest consequence for human medicine? an *in vitro* experimental model. *PLoS ONE*, 15(11 November). <https://doi.org/10.1371/journal.pone.0242195>

Oladeinde, A., Z. Abdo, M. O. Press, K. Cook, N. A. Cox, B. Zwirzitz, R. Woyda, S. M. Lakin, J. C. Thomas IV, T. Looft, D. E. Cosby, A. Hinton, J. Guard, E. Line, M. J. Rothrock, M. E. Berrang, K. Herrington, G. Zock, J. P. Lawrence, D. Cudnik, S. House, K. Ingram, L. Lariscy, M. Wagner, S. E. Aggrey, L. Chai, and C. Ritz. 2021. Erratum for Oladeinde et al., “Horizontal gene transfer is the main driver of antimicrobial resistance in broiler chicks infected with *Salmonella enterica* serovar Heidelberg.” *mSystems*, 6 (5), art. no. e01147-21. <https://doi.org/10.1128/mSystems.01147-21>

Oladeinde, A., Z. Abdo, M. O. Press, K. Cook, N. A. Cox, B. Zwirzitz, R. Woyda, S. M. Lakin, J. C. Thomas IV, T. Looft, D. E. Cosby, A. Hinton, J. Guard, E. Line, M. J. Rothrock, M. E. Berrang, K. Herrington, G. Zock, J. P. Lawrence, D. Cudnik, S. House, K. Ingram, L. Lariscy, M. Wagner, S. E. Aggrey, L. Chai, and C. Ritz. 2021. Horizontal gene transfer is the main driver of antimicrobial resistance in broiler chicks infected with *Salmonella enterica* serovar Heidelberg. *MSystems*, 6(4). <https://doi.org/10.1128/mSystems.00729-21>

Oladeinde, A., K. Cook, S. M. Lakin, R. Woyda, Z. Abdo, T. Looft, K. Herrington, G. Zock, J. P. Lawrence, J. C. Thomas, M. S. Beaudry, and T. Glenn. 2019. Horizontal gene transfer and acquired antibiotic resistance in *Salmonella enterica* serovar Heidelberg following *in vitro* incubation in broiler ceca. *Applied and Environmental Microbiology*, 85(22). <https://doi.org/10.1128/AEM.01903-19>

On, S. L. W., D. Althaus, W. G. Miller, D. Lizamore, S. G. L. Wong, A. J. Mathai, V. Chelikani, and G. P. Carter. 2019. *Arcobacter cryaerophilus* isolated from New Zealand mussels harbor a putative virulence plasmid. *Frontiers in Microbiology*, 10(AUG). <https://doi.org/10.3389/fmicb.2019.01802>

Ou, C., D. Shang, J. Yang, B. Chen, J. Chang, F. Jin, and C. Shi. 2020. Prevalence of multidrug-resistant *Staphylococcus aureus* isolates with strong biofilm formation ability among animal-based food in Shanghai. *Food Control*, 112. <https://doi.org/10.1016/j.foodcont.2020.107106>

Park, I., D. Goo, H. Nam, S. S. Wickramasuriya, K. Lee, N. P. Zimmerman, A. Smith, T. G. Rehberger, and H. S. Lillehoj. 2021. Effects of dietary maltol on innate immunity, gut health, and growth performance of broiler chickens challenged with *Eimeria maxima*. *Frontiers in Veterinary Science*. 8, 508. <https://doi.org/10.3389/fvets.2021.667425>

Park, I., Y. Lee, D. Goo, N. P. Zimmerman, A. H. Smith, T. Rehberger, and H. S. Lillehoj. 2020. The effects of dietary *Bacillus subtilis* supplementation, as an alternative to antibiotics, on growth performance, intestinal immunity, and epithelial barrier integrity in broiler chickens

infected with *Eimeria maxima*. *Poultry Science*, 99(2), 725–733.
<https://doi.org/10.1016/j.psj.2019.12.002>

Park, I., N. P. Zimmerman, A. H. Smith, T. G. Rehberger, E. P. Lillehoj, and H. S. Lillehoj. 2020. Dietary supplementation with *Bacillus subtilis* direct-fed microbials alters chicken intestinal metabolite levels. *Frontiers in Veterinary Science*, 7.
<https://doi.org/10.3389/fvets.2020.00123>

Parker, C. T., S. Huynh, A. Alexander, A. S. Oliver, and K. K. Cooper. 2021. Genomic characterization of *Salmonella typhimurium* DT104 strains associated with cattle and beef products. *Pathogens*, 10(5). <https://doi.org/10.3390/pathogens10050529>

Parois, S. P., A. W. Duttlinger, B. T. Richert, S. R. Lindemann, J. S. Johnson, and J. N. Marchant-Forde. 2020. Effects of three distinct 2-week long diet strategies after transport on weaned pigs' short and long-term welfare markers, behaviors, and microbiota. *Frontiers in Veterinary Science*, 7. <https://doi.org/10.3389/fvets.2020.00140>

Pascoe, B., F. Schiaffino, S. Murray, G. Méric, S. C. Bayliss, M. D. Hitchings, E. Mourkas, J. K. Calland, R. Burga, P. P. Yori, K. A. Jolley, K. K. Cooper, C. T. Parker, M. P. Olortegui, M. N. Kosek, and S. K. Sheppard. 2020. Genomic epidemiology of *Campylobacter jejuni* associated with asymptomatic pediatric infection in the Peruvian Amazon. *PLoS Neglected Tropical Diseases*, 14(8), 1-19. <https://doi.org/10.1371/journal.pntd.0008533>

Paudyal, S., J. S. Armstrong, K. L. Giles, W. Hoback, R. Aiken, and M. E. Payton. 2020. Differential responses of sorghum genotypes to sugarcane aphid feeding. *Planta*, 252(1), 14.
<https://doi.org/10.1007/s00425-020-03419-w>

Pellissery, A. J., P. G. Vinayamohan, H. -B. Yin, S. Mooyottu, and K. Venkitanarayanan. 2019. In vitro efficacy of sodium selenite in reducing toxin production, spore outgrowth and antibiotic resistance in hypervirulent clostridium difficile. *Journal of Medical Microbiology*, 68(7), 1118-1128. <https://doi.org/10.1099/jmm.0.001008>

Perea, C., G. Ciaravino, T. Stuber, T. C. Thacker, S. Robbe-Austerman, A. Allepuz, and B. P. de Val. 2021. Whole-genome SNP analysis identifies putative *Mycobacterium bovis* transmission clusters in livestock and wildlife in Catalonia, Spain. *Microorganisms*, 9(8).
<https://doi.org/10.3390/microorganisms9081629>

Perez, J. J., and C. -Y. Chen. 2019. Implementation of normalized retention time (iRT) for bottom-up proteomic analysis of the aminoglycoside phosphotransferase enzyme facilitating method distribution. *Analytical and Bioanalytical Chemistry*, 411(19), 4701-4708.
<https://doi.org/10.1007/s00216-018-1377-z>

- Pissetti, C., J. D. Kich, H. K. Allen, C. Navarrete, E. de Freitas Costa, N. Morés, and M. Cardoso. 2021. Antimicrobial resistance in commensal *Escherichia coli* and *Enterococcus* spp. isolated from pigs subjected to different antimicrobial administration protocols. *Research in Veterinary Science*, 137, 174-185. <https://doi.org/10.1016/j.rvsc.2021.05.001>
- Poole, T. L., R. Benjamin, K. J. Genovese, and D. J. Nisbet. 2020. Methylsulfonylmethane exhibits bacteriostatic inhibition of vancomycin-resistant *Enterococcus faecium*, *in vitro*. *Microbial Drug Resistance*. <https://doi.org/10.1089/mdr.2019.0454>
- Price, N. P. J., M. A. Jackson, V. Singh, T. M. Hartman, J. A. Blackburn, and P. F. Dowd. 2019. Synergistic enhancement of beta-lactam antibiotics by modified tunicamycin analogs TunR1 and TunR2. *Journal of Antibiotics*, 72(11), 807-815. <https://doi.org/10.1038/s41429-019-0220-x>
- Price, N. P. J., M. A. Jackson, K. E. Vermillion, J. A. Blackburn, and T. M. Hartman. 2020. Rhodium-catalyzed reductive modification of pyrimidine nucleosides, nucleotide phosphates, and sugar nucleotides. *Carbohydrate Research*, 488. <https://doi.org/10.1016/j.carres.2019.107893>
- Proestou, D. A., and M. E. Sullivan. 2020. Variation in global transcriptomic response to *Perkinsus marinus* infection among eastern oyster families highlights potential mechanisms of disease resistance. *Fish & Shellfish Immunology*, 96, 141–151. <https://doi.org/10.1016/j.fsi.2019.12.001>
- Putz, E. J., M. V. Palmer, H. Ma, E. Casas, T. A. Reinhardt, and J. D. Lippolis. 2020. Case report: Characterization of a persistent, treatment-resistant, novel *Staphylococcus aureus* infection causing chronic mastitis in a Holstein dairy cow. *BMC Veterinary Research*, 16(1). <https://doi.org/10.1186/s12917-020-02528-8>
- Quinn, L., A. Sheh, J. L. Ellis, D. E. Smith, S. L. Booth, X. Fu, S. Muthupalani, Z. Ge, D. A. Puglisi, T. C. Wang, T. A. Gonda, H. Holcombe, and J. G. Fox. 2020. *Helicobacter pylori* antibiotic eradication coupled with a chemically defined diet in INS-GAS mice triggers dysbiosis and vitamin K deficiency resulting in gastric hemorrhage. *Gut Microbes*, 11(4), 820–841. <https://doi.org/10.1080/19490976.2019.1710092>
- Ramadan, H., C. R. Jackson, J. G. Frye, L. M. Hiott, M. Samir, A. Awad, and T. A. Woodley. 2020. Antimicrobial resistance, genetic diversity and multilocus sequence typing of *Escherichia coli* from humans, retail chicken and ground beef in Egypt. *Pathogens*, 9(5). <https://doi.org/10.3390/pathogens9050357>
- Ramadan, H., S. K. Gupta, P. Sharma, M. Ahmed, L. M. Hiott, J. B. Barrett, T. A. Woodley, J. G. Frye, and C. R. Jackson. 2020. Circulation of emerging NDM-5-producing *Escherichia coli* among humans and dogs in Egypt. *Zoonoses and Public Health*, 67(3), 324-329. <https://doi.org/10.1111/zph.12676>

- Rasooly, R., H. Choi, P. Do, G. Morroni, L. Brescini, O. Cirioni, A. Giacometti, and E. Apostolidis. 2020. whISOBAX™ inhibits bacterial pathogenesis and enhances the effect of antibiotics. *Antibiotics*, 9(5). <https://doi.org/10.3390/antibiotics9050264>
- Rasooly, R., A. Molnar, P. Do, G. Morroni, L. Brescini, O. Cirioni, A. Giacometti, and E. Apostolidis. 2020. Witch hazel significantly improves the efficacy of commercially available teat dips. *Pathogens*, 9(2). <https://doi.org/10.3390/pathogens9020092>
- Ricker, N., J. Trachsel, P. Colgan, J. Jones, J. Choi, J. Lee, J. F. Coetzee, A. Howe, S. L. Brockmeier, C. L. Loving, and H. K. Allen. 2020. Toward antibiotic stewardship: route of antibiotic administration impacts the microbiota and resistance gene diversity in swine feces. *Frontiers in Veterinary Science*, 7. <https://doi.org/10.3389/fvets.2020.00255>
- Rinkevich, F. D. 2020. Detection of amitraz resistance and reduced treatment efficacy in the Varroa Mite, *Varroa destructor*, within commercial beekeeping operations. *Plos One*, 15(1). <https://doi.org/10.1371/journal.pone.0227264>
- Rinkevich, F. D., and L. Bourgeois. 2020. In silico identification and assessment of insecticide target sites in the genome of the small hive beetle, *Aethina tumida*. *BMC Genomics*, 21(1). <https://doi.org/10.1186/s12864-020-6551-y>
- Robinson, K., Q. Yang, H. Li, L. Zhang, B. Aylward, R. J. Arsenault, and G. Zhang. 2021. Butyrate and forskolin augment host defense, barrier function, and disease resistance without eliciting inflammation. *Frontiers in Nutrition*, 8, art. no. 778424. <https://doi.org/10.3389/fnut.2021.778424>
- Robinson, K. O., J. W. Burton, E. W. Taliercio, D. W. Israel, and T. E. Carter. 2020. Inheritance of rhizobitoxine-induced chlorosis in soybean. *Crop Science*, 60(6), 3027–3034. <https://doi.org/10.1002/csc2.20193>
- Roireau, J. H., R. J. Rosano, N. C. Lazzara, T. Chen, J. Bajsa-Hirschel, K. K. Schrader, S. O. Duke, D. Wykoff, and R. M. Giuliano. 2020. Synthesis of pyranopyrans related to diplopyrone and evaluation as antibacterials and herbicides. *Journal of Agricultural and Food Chemistry*, 68(37), 9906–9916. <https://doi.org/10.1021/acs.jafc.0c02564>
- Saito, S., F. Wang, and C. L. Xiao. 2020. Efficacy of natamycin against gray mold of stored Mandarin fruit caused by isolates of *Botrytis cinerea* with multiple fungicide resistance. *Plant Disease*, 104(3), 787–792. <https://doi.org/10.1094/pdis-04-19-0844-re>
- Salaheen, S., S. W. Kim, E. Hovingh, J. A. S. Van Kessel, and B. J. Haley. 2021. Metagenomic analysis of the microbial communities and resistomes of ceal calf feces. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.609950>

Salaheen, S., S. W. Kim, J. S. Karns, E. Hovingh, B. J. Haley, and J. A. S. Van Kessel. 2019. Metagenomic analysis of the fecal microbiomes from *Escherichia coli* O157:H7-shedding and non-shedding cows on a single dairy farm. *Food Control*, 102, 76-80.

<https://doi.org/10.1016/j.foodcont.2019.03.022>

Salaheen, S., H. Cao, J. L. Sonnier, S. W. Kim, L. P. Del Collo, E. Hovingh, J. S. Karns, B. J. Haley, and J. A. S. Van Kessel. 2019. Diversity of extended-spectrum cephalosporin-resistant *Escherichia coli* in feces from calves and cows on Pennsylvania dairy farms. *Foodborne Pathogens and Disease*, 16(5), 368-370. <https://doi.org/10.1089/fpd.2018.2579>

Salaheen, S., S. W. Kim, H. Cao, D. R. Wolfgang, E. Hovingh, J. S. Karns, B. J. Haley, and J. A. S. Van Kessel. 2019. Antimicrobial resistance among *Escherichia coli* isolated from veal calf operations in Pennsylvania. *Foodborne Pathogens and Disease*, 16(1), 74-80.

<https://doi.org/10.1089/fpd.2018.2530>

Samuelson, M. M., E. E. Pulis, C. Ray, C. R. Arias, D. R. Samuelson, E. E. Mattson, and M. Solangi. 2020. Analysis of the fecal microbiome in Kemp's ridley sea turtles *Lepidochelys kempii* undergoing rehabilitation. *Endangered Species Research*, 43, 121-131.

<https://doi.org/10.3354/ESR01043>

Sathoff, A. E., S. Lewenza, and D. A. Samac. 2020. Plant defensin antibacterial mode of action against *Pseudomonas* species. *BMC Microbiology*, 20(1). <https://doi.org/10.1186/s12866-020-01852-1>

Saunders, L. P., K. M. Bischoff, M. J. Bowman, and T. D. Leathers. 2019. Inhibition of *Lactobacillus* biofilm growth in fuel ethanol fermentations by *Bacillus*. *Bioresource Technology*, 272, 156-161. <https://doi.org/10.1016/j.biortech.2018.10.016>

Schmidt, J. W., A. Vikram, E. Doster, K. Thomas, M. D. Weinroth, J. Parker, A. Hanes, I. Geornaras, P. S. Morley, K. E. Belk, T. L. Wheeler, and T. M. Arthur. 2021. Antimicrobial resistance in U.S. retail ground beef with and without label claims regarding antibiotic use. *Journal of Food Protection*, 84(5), 827-842. <https://doi.org/10.4315/JFP-20-376>

Schmidt, J. W., A. Vikram, T. M. Arthur, K. E. Belk, P. S. Morley, M. D. Weinroth, and T. L. Wheeler. 2020. Antimicrobial resistance at two U.S. cull cow processing establishments. *Journal of Food Protection*, 83(12), 2216-2228. <https://doi.org/10.4315/JFP-20-201>

Schmidt, J. W., A. Vikram, E. Miller, S. A. Jones, and T. M. Arthur. 2020. In-feed tylosin phosphate administration to feedlot cattle minimally affects antimicrobial resistance. *Journal of Food Protection*, 83(2), 350-364. <https://doi.org/10.4315/0362-028X.JFP-19-342>

Schnur, S. E., R. G. Amachawadi, G. Baca, S. Sexton-Bowser, D. H. Rhodes, D. Smolensky, T. J. Herald, R. Perumal, D. U. Thomson, and T. G. Nagaraja. 2021. Antimicrobial activity of sorghum phenolic extract on bovine foodborne and mastitis-causing pathogens. *Antibiotics*, 10(5). <https://doi.org/10.3390/antibiotics10050594>

Segura, M., V. Aragon, S. L. Brockmeier, C. Gebhart, A. de Greeff, A. Kerdsin, M. A. O’Dea, M. Okura, M. Saléry, C. Schultsz, P. Valentin-Weigand, L. A. Weinert, J. M. Wells, and M. Gottschalk. 2020. Update on *Streptococcus suis* research and prevention in the era of antimicrobial restriction: 4th international workshop on *S. suis*. *Pathogens*, 9(5). <https://doi.org/10.3390/pathogens9050374>

Seyoum, M. M., O. Obayomi, N. Bernstein, C. F. Williams, and O. Gillor. 2021. Occurrence and distribution of antibiotics and corresponding antibiotic resistance genes in different soil types irrigated with treated wastewater. *Science of the Total Environment*, 782. <https://doi.org/10.1016/j.scitotenv.2021.146835>

Seyoum, M. M., O. Obayomi, N. Bernstein, C. F. Williams, and O. Gillor. 2021. The dissemination of antibiotics and their corresponding resistance genes in treated effluent-soil-crops continuum, and the effect of barriers. *Science of The Total Environment*, p.151525. <https://doi.org/10.1016/j.scitotenv.2021.151525>

Shah, D. H., M. M. Board, R. Crespo, J. Guard, N. C. Paul, and C. Faux. 2020. The occurrence of *Salmonella*, extended-spectrum β -lactamase producing *Escherichia coli* and carbapenem resistant non-fermenting Gram-negative bacteria in a backyard poultry flock environment. *Zoonoses and Public Health*, 67(6), 742-753. <https://doi.org/10.1111/zph.12756>

Shang, D., H. Zhao, X. Xu, K. Arunachalam, J. Chang, L. Bai, and C. Shi. 2021. Conjugative IncHI2 plasmid harboring novel class 1 integron mediated dissemination of multidrug resistance genes in *Salmonella* Typhimurium. *Food Control*, 122. <https://doi.org/10.1016/j.foodcont.2020.107810>

Sharma, L., R. Nagpal, C. R. Jackson, D. Patel, and P. Singh. 2021. Antibiotic-resistant bacteria and gut microbiome communities associated with wild-caught shrimp from the United States versus imported farm-raised retail shrimp. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-82823-y>

Sharma, P., S. K. Gupta, J. B. Barrett, L. M. Hiott, T. A. Woodley, S. Kariyawasam, J. G. Frye, and C. R. Jackson. 2020. Comparison of antimicrobial resistance and pan-genome of clinical and non-clinical *Enterococcus cecorum* from poultry using whole-genome sequencing. *Foods*, 9(6). <https://doi.org/10.3390/foods9060686>

Sharma, P., S. K. Gupta, E. O. Adenipekun, J. B. Barrett, L. M. Hiott, T. A. Woodley, B. A. Iwalokun, A. Oluwadun, H. H. Ramadan, J. G. Frye, and C. R. Jackson. 2020. Genome analysis

of multidrug-resistant *Escherichia coli* isolated from poultry in Nigeria. *Foodborne Pathogens and Disease*, 17(1), 1-7. <https://doi.org/10.1089/fpd.2019.2659>

Sharma, V. K., S. Akavaram, R. G. Schaut, and D. O. Bayles. 2019. Comparative genomics reveals structural and functional features specific to the genome of a foodborne *Escherichia coli* O157:H7. *BMC Genomics*, 20(1). <https://doi.org/10.1186/s12864-019-5568-6>

Showler, A. T., and J. L. Harlien. 2020. Effects of silica-based CimeXa and Drione dusts Against lone star tick (Ixodida: Ixodidae) on cattle. *Journal of Medical Entomology*, 57(2), 485–492. <https://doi.org/10.1093/jme/tjz180>

Shrestha, S., J. Neubauer, R. Spanner, M. Natwick, J. Rios, N. Metz, G. A. Secor, and M. D. Bolton. 2020. Rapid detection of *Cercospora beticola* in sugar beet and mutations associated with fungicide resistance using LAMP or probe-based qPCR. *Plant Disease*, 104(6), 1654–1661. <https://doi.org/10.1094/pdis-09-19-2023-re>

Singer, R. S., L. J. Porter, N. F. D. Schrag, P. R. Davies, M. D. Apley, and K. Bjork. 2020. Estimates of on-farm antimicrobial usage in turkey production in the United States, 2013–2017. *Zoonoses and Public Health*, 67(S1), 36-50. <https://doi.org/10.1111/zph.12763>

Singer, R. S., L. J. Porter, N. F. D. Schrag, P. R. Davies, M. D. Apley, and K. Bjork. 2020. Estimates of on-farm antimicrobial usage in broiler chicken production in the United States, 2013–2017. *Zoonoses and Public Health*, 67(S1), 22-35. <https://doi.org/10.1111/zph.12764>

Slowey, R., S. W. Kim, D. Prendergast, G. Madigan, J. A. S. Van Kessel, and B. J. Haley. 2021. Genomic diversity and resistome profiles of *Salmonella enterica* subsp. *enterica* serovar Kentucky isolated from food and animal sources in Ireland. *Zoonoses and Public Health*. <https://doi.org/10.1111/zph.12884>

Smith, D. D. N., A. N. Williams, J. N. Verrett, N. T. Bergbusch, V. Manning, K. Trippe, and J. Stavriniades. 2019. Resistance to two vinylglycine antibiotic analogs is conferred by inactivation of two separate amino acid transporters in *Erwinia amylovora*. *Journal of Bacteriology*, 201(9). <https://doi.org/10.1128/JB.00658-18>

Smith, S. D., P. Colgan, F. Yang, E. L. Rieke, M. L. Soupir, T. B. Moorman, H. K. Allen, and A. Howe. 2019. Investigating the dispersal of antibiotic resistance associated genes from manure application to soil and drainage waters in simulated agricultural farmland systems. *PLoS ONE*, 14(9). <https://doi.org/10.1371/journal.pone.0222470>

Soliman, A. M., H. Ramadan, H. Zarad, Y. Sugawara, L. Yu, M. Sugai, T. Shimamoto, L. M. Hiott, J. G. Frye, C. R. Jackson, and T. Shimamoto. 2021. Coproduction of et(X7) conferring high-level tigeicycline resistance, fosfomycin FosA4, and colistin Mcr-1.1 in *Escherichia coli*

strains from chickens in Egypt. *Antimicrobial Agents and Chemotherapy*, 65(6).
<https://doi.org/10.1128/AAC.02084-20>

Soliman, A. M., H. Ramadan, M. Sadek, H. Nariya, T. Shimamoto, L. M. Hiott, J. G. Frye, C. R. Jackson, and T. Shimamoto. 2020. Draft genome sequence of a *bla*_{NDM-1}- and *bla*_{OXA-244}-carrying multidrug-resistant *Escherichia coli* D-ST69 clinical isolate from Egypt. *Journal of Global Antimicrobial Resistance*, 22, 832-834. <https://doi.org/10.1016/j.jgar.2020.07.015>

Soliman, A. M., H. Ramadan, E. Ghazy, L. Yu, J. Hisatsune, S. Kayama, M. Sugai, H. Nariya, T. Shimamoto, C. R. Jackson, and T. Shimamoto. 2020. Emergence of *Salmonella* genomic island 1 variant SG11-C in a multidrug-resistant clinical isolate of *Klebsiella pneumoniae* ST485 from Egypt. *Antimicrobial Agents and Chemotherapy*, 64(9). <https://doi.org/10.1128/AAC.01055-20>

Soltys, R. C., C. K. Sakamoto, H. N. Oltean, J. Guard, B. J. Haley, and D. H. Shah. 2021. High-resolution comparative genomics of *Salmonella* Kentucky aids source tracing and detection of ST198 and ST152 lineage-specific mutations. *Frontiers in Sustainable Food Systems*, 5. <https://doi.org/10.3389/fsufs.2021.695368>

Springer, H. R., T. N. Denagamage, G. D. Fenton, B. J. Haley, J. A. S. Van Kessel, and E. P. Hovingh. 2019. Antimicrobial resistance in fecal *Escherichia coli* and *Salmonella enterica* from dairy calves: a systematic review. *Foodborne Pathogens and Disease*, 16(1), 23-34.
<https://doi.org/10.1089/fpd.2018.2529>

Srednik, M. E., K. Lantz, J. A. Hicks, B. R. Morningstar-Shaw, T. A. Mackie, and L. K. Schlater. 2021. Antimicrobial resistance and genomic characterization of *Salmonella* Dublin isolates in cattle from the United States. *PLoS ONE*, 16(9 September).
<https://doi.org/10.1371/journal.pone.0249617>

Srinivasan, R., A. Kannappan, C. Shi, and X. Lin. 2021. Marine bacterial secondary metabolites: a treasure house for structurally unique and effective antimicrobial compounds. *Marine Drugs*, 19(10), 530. <https://doi.org/10.3390/md19100530>

Stahl, R. S., B. Bisha, S. Mahapatra, and J. C. Chandler. 2020. A model for the prediction of antimicrobial resistance in *Escherichia coli* based on a comparative evaluation of fatty acid profiles. *Diagnostic Microbiology and Infectious Disease*, 96(3).
<https://doi.org/10.1016/j.diagmicrobio.2019.114966>

Staley, Z. R., B. L. Woodbury, B. S. Stromer, A. M. Schmidt, D. D. Snow, S. L. Bartelt-Hunt, B. Wang, and X. Li. 2021. Stockpiling versus composting: Effectiveness in reducing antibiotic-resistant bacteria and resistance genes in beef cattle manure. *Applied and Environmental Microbiology*, 87(16), e0075021. <https://doi.org/10.1128/AEM.00750-21>

Staley, Z. R., A. M. Schmidt, B. Woodbury, K. M. Eskridge, L. Durso, and X. Li. 2020. Corn stalk residue may add antibiotic-resistant bacteria to manure composting piles. *Journal of Environmental Quality*, 49(3), 745-753. <https://doi.org/10.1002/jeq2.20017>

Stuart, K. L., D. O. Bayles, S. M. Shore, and T. L. Nicholson. 2021. Complete genome sequence of *Escherichia coli* antibiotic resistance isolate bank number 0346. *Microbiology Resource Announcements*, 10(23). <https://doi.org/10.1128/MRA.00305-21>

Stuart, K. L., S. M. Shore, and T. L. Nicholson. 2019. Complete genome sequence of *Escherichia coli* antibiotic-resistant isolate AR bank #0349. *Microbiology Resource Announcements*, 8(48). <https://doi.org/10.1128/MRA.01078-19>

Suttner, B., E. R. Johnston, L. H. Orellana, L. M. Rodriguez-R, J. K. Hatt, D. Carychao, M. Q. Carter, M. B. Cooley, and K. T. Konstantinidis. 2020. Metagenomics as a public health risk assessment tool in a study of natural creek sediments influenced by agricultural and livestock runoff: potential and limitations. *Applied and Environmental Microbiology*, 86(6). <https://doi.org/10.1128/AEM.02525-19>

Swaggerty, C. L., H. He, K. J. Genovese, T. R. Callaway, M. H. Kogut, A. Piva, and E. Grilli. 2020. A microencapsulated feed additive containing organic acids, thymol, and vanillin increases in vitro functional activity of peripheral blood leukocytes from broiler chicks. *Poultry Science*, 99(7), 3428–3436. <https://doi.org/10.1016/j.psj.2020.03.031>

Swift, S. M., I. V. Etobayeva, K. P. Reid, J. J. Waters, B. B. Oakley, D. M. Donovan, and D. C. Nelson. 2019. Characterization of LysBC17, a lytic endopeptidase from *Bacillus cereus*. *Antibiotics*, 8(3). <https://doi.org/10.3390/antibiotics8030155>

Syed, M. A., B. Jamil, H. Ramadan, M. Rukan, S. Ali, S. A. Abbasi, T. A. Woodley, and C. R. Jackson. 2021. Genetic diversity of *Staphylococcus aureus* strains from a tertiary care hospital in Rawalpindi, Pakistan. *Microorganisms*, 9(11), p.2301. <https://doi.org/10.3390/microorganisms9112301>

Syed, M. A., H. Ullah, S. Tabassum, B. Fatima, T. A. Woodley, H. Ramadan, and C. R. Jackson. 2020. Staphylococci in poultry intestines: A comparison between farmed and household chickens. *Poultry Science*, 99(9), 4549-4557. <https://doi.org/10.1016/j.psj.2020.05.051>

Syed, M. A., C. R. Jackson, H. Ramadan, R. Afridi, S. Bano, S. Bibi, B. Fatima, S. Tabassum, B. Jamil, M. F. Khan, and T. A. Woodley. 2019. Detection and molecular characterization of staphylococci from eggs of household chickens. *Foodborne Pathogens and Disease*, 16(8), 550-557. <https://doi.org/10.1089/fpd.2018.2585>

Sylte, M. J., T. A. Johnson, E. L. Meyer, M. H. Inbody, J. Trachsel, T. Looft, L. Susta, Z. Wu, and Q. Zhang. 2019. Intestinal colonization and acute immune response in commercial turkeys

following inoculation with *Campylobacter jejuni* constructs encoding antibiotic-resistance markers. *Veterinary Immunology and Immunopathology*, 210, 6-14.

<https://doi.org/10.1016/j.vetimm.2019.02.003>

Szigeti, R., and R. Kellermayer. 2021. Tying the past to the present: Time tested knowledge with state-of-the-art technology in the fight against emerging and drug resistant microbes. *Therapeutic Advances in Infectious Disease*, 8. <https://doi.org/10.1177/2049936121989552>

Tam, C. C., K. Nguyen, D. Nguyen, S. Hamada, O. Kwon, I. Kuang, S. Gong, S. Escobar, M. Liu, J. Kim, T. Hou, J. Tam, L. W. Cheng, J. H. Kim, K. M. Land, and M. Friedman. 2021. Antimicrobial properties of tomato leaves, stems, and fruit and their relationship to chemical composition. *BMC Complementary Medicine and Therapies*, 21(1).

<https://doi.org/10.1186/s12906-021-03391-2>

Tancos, M. A., A. J. Sechler, I. E. W. Davis, J. H. Chang, B. K. Schroeder, T. D. Murray, and E. E. Rogers. 2020. The identification and conservation of tunicaminylluracil-related biosynthetic gene clusters in several *Rathayibacter* species collected from Australia, Africa, Eurasia, and North America. *Frontiers in Microbiology*, 10. <https://doi.org/10.3389/fmicb.2019.02914>

Taviani, E., A. Muchongo, S. W. Kim, J. A. S. Van Kessel, and B. J. Haley. 2021. Genomic analysis of antibiotic-resistant and-susceptible *Escherichia coli* isolated from bovine sources in Maputo, Mozambique. *Foodborne Pathogens and Disease*, 18(6), 426-435.

<https://doi.org/10.1089/fpd.2020.2901>

Taylor, T. L., J. D. Volkening, E. DeJesus, M. Simmons, M., K. M. Dimitrov, G. E. Tillman, D. L. Suarez, and C. L. Afonso. 2019. Rapid, multiplexed, whole genome and plasmid sequencing of foodborne pathogens using long-read nanopore technology. *Scientific Reports*, 9(1).

<https://doi.org/10.1038/s41598-019-52424-x>

Taylor, J. T., P. K. Mukherjee, L. S. Puckhaber, K. Dixit, T. I. Igumenova, C. Suh, B. A. Horwitz, and C. M. Kenerley. 2020. Deletion of the *Trichoderma virens* NRPS, Tex7, induces accumulation of the anti-cancer compound heptelidic acid. *Biochemical and Biophysical Research Communications*, 529(3), 672–677. <https://doi.org/10.1016/j.bbrc.2020.06.040>

Thakali, O., J. P. Brooks, S. Shahin, S. P. Sherchan, and E. Haramoto. 2020. Removal of antibiotic resistance genes at two conventional wastewater treatment plants of Louisiana, USA. *Water (Switzerland)*, 12(6). <https://doi.org/10.3390/W12061729>

Thakali, O., S. Tandukar, J. P. Brooks, S. P. Sherchan, J. B. Sherchand, and E. Haramoto. 2020. The occurrence of antibiotic resistance genes in an urban river in Nepal. *Water (Switzerland)*, 12(2). <https://doi.org/10.3390/w12020450>

Thomas, J. C., T. J. Kieran, J. W. Finger, N. J. Bayona-Vásquez, A. Oladeinde, J. C. Beasley, J. C. Seaman, J. V. McArthur, O. E. Rhodes Jr, and T. C. Glenn. 2021. Unveiling the gut microbiota and resistome of wild cotton mice, *Peromyscus gossypinus*, from heavy metal- and radionuclide-contaminated sites in the southeastern United States. *Microbiology Spectrum*, 9(1), e0009721. <https://doi.org/10.1128/Spectrum.00097-21>

Thomas, J. C., A. Oladeinde, T. J. Kieran, J. W. Finger, N. J. Bayona-Vásquez, J. C. Cartee, J. C. Beasley, J. C. Seaman, J. V. McArthur, O. E. Rhodes, Jr., and T. C. Glenn. 2020. Co-occurrence of antibiotic, biocide, and heavy metal resistance genes in bacteria from metal and radionuclide contaminated soils at the Savannah River Site. *Microbial Biotechnology*, 13(4), 1179-1200. <https://doi.org/10.1111/1751-7915.13578>

Treiber, M. L., D. H. Taft, I. Korf, D. A. Mills, and D. G. Lemay. 2020. Pre-and post-sequencing recommendations for functional annotation of human fecal metagenomes. *BMC Bioinformatics*, 21(1). <https://doi.org/10.1186/s12859-020-3416-y>

Vesterinen, H. M., T. V. Dutcher, K. M. Errecaborde, M. W. Mahero, K. W. Macy, O. O. Prasarnphanich, H. Kassenborg, E. Yulizar, R. P. Fauzi, N. S. Budayanti, A. Suwandono, W. T. Artama, L. Valeri, and K. M. Pelican. 2019. Strengthening multi-sectoral collaboration on critical health issues: One Health Systems Mapping and Analysis Resource Toolkit (OH-SMART) for operationalizing One Health. *PLoS ONE*, 14(7). <https://doi.org/10.1371/journal.pone.0219197>

Vikram, A., E. Miller, T. M. Arthur, J. M. Bosilevac, T. L. Wheeler, and J. W. Schmidt. 2019. Food service pork chops from three U.S. regions harbor similar levels of antimicrobial resistance regardless of antibiotic use claims. *Journal of Food Protection*, 82(10), 1667-1676. <https://doi.org/10.4315/0362-028X.JFP-19-139>

Wang, Y., N. Hou, R. Rasooly, Y. Gu, and X. He. 2021. Prevalence and genetic analysis of chromosomal mcr-3/7 in *Aeromonas* From U.S. animal-derived samples. *Frontiers in Microbiology*, 12. <https://doi.org/10.3389/fmicb.2021.667406>

White, P. L., A. L. Green, K. G. Holt, and K. R. Hale. 2019. Multidrug-resistant *Salmonella enterica* Subspecies i Serovar 4,[5],12:i:-isolates recovered from Food Safety and Inspection Service-regulated products and food animal ceca, 2007-2016. *Foodborne Pathogens and Disease*, 16(10), 679-686. <https://doi.org/10.1089/fpd.2018.2573>

Wickramasuriya, S. S., I. Park, Y. Lee, C. Przybyszewski, C. G. Gay, J. van Oosterwijk, and H. S. Lillehoj. 2021. Oral delivery of *Bacillus subtilis* expressing chicken NK-2 peptide protects against *Eimeria acervulina* infection in broiler chickens. *Frontiers in veterinary science*. 8, 562. <https://doi.org/10.3389/fvets.2021.684818>

Wind, L. L., J. S. Briganti, A. M. Brown, T. P. Neher, M. F. Davis, L. M. Durso, T. Spicer, and S. Lansing. 2021. Finding what is inaccessible: Antimicrobial resistance language use among the one health domains. *Antibiotics*, 10(4). <https://doi.org/10.3390/antibiotics10040385>

Woodbury, B. L., B. S. Stromer, and K. A. Woodward. 2020. An inexpensive treatment process for removing antibiotics from agricultural wastewater. Paper presented at the *ASABE 2020 Annual International Meeting*. <https://doi.org/10.13031/aim.202000453>

Wu, Y., J. Wang, Q. He, L. Yu, Q. Pham, L. Cheung, Z. Zhang, Y. S. Kim, A. D. Smith, and T. T. Y. Wang. 2020. Dietary indole-3-carbinol alleviated spleen enlargement, enhanced IgG response in C3H/HeN mice infected with *Citrobacter rodentium*. *Nutrients*, 12(10), 1–15. <https://doi.org/10.3390/nu12103148>

Wu, Y., Y. Zheng, Y. Chen, S. Wang, Y. Chen, F. Hu, and H. Zheng. 2020. Honey bee (*Apis mellifera*) gut microbiota promotes host endogenous detoxification capability via regulation of P450 gene expression in the digestive tract. *Microbial Biotechnology*, 13(4), 1201–1212. <https://doi.org/10.1111/1751-7915.13579>

Wylensek, D., T. C. A. Hitch, T. Riedel, A. Afrizal, N. Kumar, E. Wortmann, T. Liu, S. Devendran, T. R. Lesker, S. B. Hernández, V. Heine, E. M. Buhl, P. M. D’Agostino, F. Cumbo, T. Fischöder, M. Wyschkon, T. Looft, V. R. Parreira, B. Abt, H. L. Doden, L. Ly, J. M. P. Alves, M. Reichlin, K. Flisikowski, L. N. Suarez, A. P. Neumann, G. Suen, T. de Wouters, S. Rohn, I. Lagkouvardos, E. Allen-Vercoe, C. Spröer, B. Bunk, A. J. Taverne-Thiele, M. Giesbers, J. M. Wells, K. Neuhaus, A. Schnieke, F. Cava, N. Segata, L. Elling, T. Strowig, J. M. Ridlon, T. A. M. Gulder, J. Overmann, and T. Clavel. 2020. A collection of bacterial isolates from the pig intestine reveals functional and taxonomic diversity. *Nature Communications*, 11(1). <https://doi.org/10.1038/s41467-020-19929-w>

Xu, A., O. J. Scullen, S. Sheen, Y. Liu, J. R. Johnson, and C. H. Sommers. 2020. Inactivation of extraintestinal pathogenic *E. coli* suspended in ground chicken meat by high pressure processing and identification of virulence factors which may affect resistance to high pressure. *Food Control*, 111. <https://doi.org/10.1016/j.foodcont.2019.107070>

Xu, A., O. J. Scullen, S. Sheen, J. R. Johnson, and C. H. Sommers. 2019. Inactivation of extraintestinal pathogenic *E. coli* clinical and food isolates suspended in ground chicken meat by gamma radiation. *Food Microbiology*, 84. <https://doi.org/10.1016/j.fm.2019.103264>

Xu, A., Chuang, S., Scullen, O. J., Huang, L., Sheen, S., Sheen, L.Y., Johnson, J.R. and C. H. Sommers. 2019. Thermal inactivation of extraintestinal pathogenic *Escherichia coli* suspended in ground chicken meat. *Food Control*, 104, 269-277. <https://doi.org/10.1016/j.foodcont.2019.05.001>

- Xu, A., A. Abdul-Wakeel, N. W. Gunther Iv, and C. Sommers. 2019. Draft genomic sequences of *Campylobacter coli* isolates from chicken carcasses. *Microbiology Resource Announcements*, 8(28). <https://doi.org/10.1128/MRA.00564-19>
- Xu, A., W. Mackay, O. J. Scullen, S. Sheen, R. Ramos, and C. Sommers. 2019. Draft genomic sequence of *Escherichia coli* sequence type 131, isolated from retail chicken skin. *Microbiology Resource Announcements*, 8(7). <https://doi.org/10.1128/MRA.01533-18>
- Yang, C., C. A. Powell, Y. Duan, V. Ancona, J. Huang, and M. Zhang. 2020. Transcriptomic analysis reveals root metabolic alteration and induction of huanglongbing resistance by sulphonamide antibiotics in huanglongbing-affected citrus plants. *Plant Pathology*, 69(4), 733-743. <https://doi.org/10.1111/ppa.13154>
- Yang, J., Z. Zhang, X. Zhou, Y. Cui, C. Shi, and X. Shi. 2020. Prevalence and characterization of antimicrobial resistance in *Salmonella enterica* isolates from retail foods in Shanghai, China. *Foodborne Pathogens and Disease*, 17(1), 35-43. <https://doi.org/10.1089/fpd.2019.2671>
- Yang, M., A. Cousineau, X. Liu, Y. Luo, D. Sun, S. Li, T. Gu, L. Sun, H. Dillow, J. Lepine, M. Xu, and B. Zhang. 2020. Direct metatranscriptome RNA-seq and multiplex RT-PCR amplicon sequencing on nanopore MinION – promising strategies for multiplex identification of viable pathogens in food. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.00514>
- Yang, Q., J. Liu, K. J. Robinson, M. A. Whitmore, S. N. Stewart, and G. Zhang. 2021. Perturbations of the ileal mycobiota by necrotic enteritis in broiler chickens. *Journal of animal science and biotechnology*, 12(1), 1-16. <https://doi.org/10.1186/s40104-021-00628-5>
- Yang, Q., M. A. Whitmore, K. Robinson, W. Lyu, and G. Zhang. 2021. Butyrate, forskolin, and lactose synergistically enhance disease resistance by inducing the expression of the genes involved in innate host defense and barrier function. *Antibiotics*, 10(10). <https://doi.org/10.3390/antibiotics10101175>
- Yang, Y., A. J. Ashworth, L. M. Durso, M. Savin, J. M. DeBruyn, K. Cook, P. A. Moore Jr., and P. R. Owens. 2021. Do long-term conservation pasture management practices influence microbial diversity and antimicrobial resistant genes in runoff? *Frontiers in Microbiology*, 12. <https://doi.org/10.3389/fmicb.2021.617066>
- Yang, Y., A. J. Ashworth, J. M. DeBruyn, L. M. Durso, M. Savin, K. Cook, P. A. Moore Jr., and P. R. Owens. 2020. Antimicrobial resistant gene prevalence in soils due to animal manure deposition and long-term pasture management. *PeerJ*, 8. <https://doi.org/10.7717/peerj.10258>
- Yang, Y., A. J. Ashworth, C. Willett, K. Cook, A. Upadhyay, P. R. Owens, A. Donoghue, S. Rickie, J. DeBruyn, and P. A. Moore Jr. 2019. Review of antibiotic resistance, ecology,

dissemination, and mitigation in U.S. broiler poultry systems. *Frontiers in Microbiology*, 10. <https://doi.org/10.3389/fmicb.2019.02639>

Yang, Y., K. M. Feye, Z. Shi, H. O. Pavlidis, M. Kogut, A. J. Ashworth, and S. C. Ricke. 2019. A historical review on antibiotic resistance of foodborne *Campylobacter*. *Frontiers in Microbiology*, 10. <https://doi.org/10.3389/fmicb.2019.01509>

Yang, Y., C. H. Sommers, E. O. Adenipekun, M. Ceruso, C. R. Jackson, T. A. Woodley, J. B. Barrett, L. M. Hiott, J. G. Frye, and Y. Liu. 2020. Draft genomic sequences of three *Escherichia coli* sequence type 131 isolates (H45, H43ii, and H43iii) from patients in Lagos, Nigeria. *Microbiology Resource Announcements*, 9(17). <https://doi.org/10.1128/MRA.00076-20>

Zhang, F., T. Zhai, S. Haider, Y. Liu, and Z. J. Huang. 2020. Synergistic effect of chlorogenic acid and caffeic acid with fosfomycin on growth inhibition of a resistant *Listeria monocytogenes* strain. *ACS Omega*, 5(13), 7537-7544. <https://doi.org/10.1021/acsomega.0c00352>

Zhang, J., D. V. Mavrodi, M. Yang, L. S. Thomashow, O. V. Mavrodi, J. Kelton, and D. M. Weller. 2020. *Pseudomonas synxantha* 2-79 transformed with pyrrolnitrin biosynthesis genes has improved biocontrol activity against soilborne pathogens of wheat and canola. *Phytopathology*, 110(5), 1010–1017. <https://doi.org/10.1094/PHYTO-09-19-0367-R>

Zhang, M., P. Zhang, G. Xu, W. Zhou, Y. Gao, R. Gong, Y. -S. Cai, H. Cong, Z. Deng, N. P. J. Price, X. Mao, and W. Chen. 2020. Comparative investigation into formycin A and pyrazofurin A biosynthesis reveals branch pathways for the construction of C-nucleoside scaffolds. *Applied and Environmental Microbiology*, 86(2). <https://doi.org/10.1128/AEM.01971-19>

Zhang, X., Q. Zhao, X. Ci, S. Chen, Z. Xie, H. Li, H. Zhang, F. Chen, and Q. Xie. 2020. Evaluation of the efficacy of chlorogenic acid in reducing small intestine injury, oxidative stress, and inflammation in chickens challenged with *Clostridium perfringens* type A. *Poultry Science*. <https://doi.org/10.1016/j.psj.2020.09.082>

Zhang, X., Q. Zhao, C. Wu, Z. Xie, X. Ci, H. Li, W. Lin, H. Zhang, and Q. Xie. 2020. Nitrate Is crucial for the proliferation of gut *Escherichia coli* caused by H9N2 AIV infection and effective regulation by Chinese herbal medicine ageratum-liquid. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.555739>

Zhang, Y., Y. -T. Liao, A. Salvador, V. M. Lavenburg, and V. C. H. Wu. 2021. Characterization of two new shiga toxin-producing *Escherichia coli* O103-infecting phages isolated from an organic farm. *Microorganisms*, 9(7). <https://doi.org/10.3390/microorganisms9071527>

Zhang, Y., J. W. Schmidt, T. M. Arthur, T. L. Wheeler, and B. Wang. 2021. A comparative quantitative assessment of human exposure to various antimicrobial-resistant bacteria among

U.S. ground beef consumers. *Journal of Food Protection*, 84(5), 736-759.
<https://doi.org/10.4315/JFP-20-154>

Zhang, Y., Y. -T. Liao, A. Salvador, and V. C. H. Wu. 2021. Genomic characterization of two shiga toxin–converting bacteriophages induced from environmental shiga toxin–producing *Escherichia coli*. *Frontiers in Microbiology*, 12. <https://doi.org/10.3389/fmicb.2021.587696>

Zhang, Y., Y. -T. Liao, A. Salvador, X. Sun, and V. C. H. Wu. 2019. Complete genome sequence of a shiga toxin-converting bacteriophage, *Escherichia* Phage Lys12581Vzw, induced from an outbreak shiga toxin-producing *Escherichia coli* strain. *Microbiology Resource Announcements*, 8(36). <https://doi.org/10.1128/MRA.00793-19>

Zhang, Z., J. Chang, X. Xu, M. Zhou, C. Shi, Y. Liu, and X. Shi. 2021. Dissemination of IncFII plasmids carrying *fosA3* and *bla*_{CTX-M-55} in clinical isolates of *Salmonella enteritidis*. *Zoonoses and Public Health*. <https://doi.org/10.1111/zph.12825>

Zhao, L. Y., L. Pi, Y. C. Qin, Y. X. Lu, W. L. Zeng, Z. Xiang, P. Qin, X. Chen, C. Y. Li, Y. M. Zhang, S. Q. Wang, Y. Si, G. C. Yang, B. M. Rosenthal, Y. M. Huang, and Z. Q. Yang. 2020. Widespread resistance mutations to sulfadoxine-pyrimethamine in malaria parasites imported to China from Central and Western Africa. *International Journal for Parasitology-Drugs and Drug Resistance*, 12, 1–6. <https://doi.org/10.1016/j.ijpddr.2019.11.002>

Zheng, Z. -Y., F. -W. Cao, W. -J. Wang, J. Yu, C. Chen, B. Chen, J. -X. Liu, J. Firrman, J. Renye, and D. -X. Ren. 2020. Probiotic characteristics of *Lactobacillus plantarum* E680 and its effect on Hypercholesterolemic mice. *BMC Microbiology*, 20(1). <https://doi.org/10.1186/s12866-020-01922-4>

Zhou, M., X. Li, W. Hou, H. Wang, G. C. Paoli, and X. Shi. 2019. Incidence and characterization of *Salmonella* isolates from raw meat products sold at small markets in Hubei Province, China. *Frontiers in Microbiology*, 10. <https://doi.org/10.3389/fmicb.2019.02265>

Zhou, X., M. Li, L. Xu, C. Shi, and X. Shi. 2019. Characterization of antibiotic resistance Genes, plasmids, biofilm formation, and *in vitro* invasion capacity of *Salmonella enteritidis* isolates from children with gastroenteritis. *Microbial Drug Resistance*, 25(8), 1191-1198.
<https://doi.org/10.1089/mdr.2018.0421>

Zhou, X., Z. Zhang, Y. Suo, Y. Cui, F. Zhang, C. Shi, and X. Shi. 2019. Effect of sublethal concentrations of ceftriaxone on antibiotic susceptibility of multiple antibiotic-resistant *Salmonella* strains. *FEMS Microbiology Letters*, 366(2). <https://doi.org/10.1093/femsle/fny283>