Dana K. Dittoe

Curriculum vitae

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EDUCATION:

Ph.D in Cell and Molecular Biology: Concentration in Food Safety, December 2020
University of Arkansas, Fayetteville, Arkansas

Dissertation title: "*The use of inorganic and organic acids as short duration antimicrobial dips on mitigating pathogens present on commercial chicken during peri-harvest*"

M.S. in Agriculture: Concentration in Poultry Science, December 2017
Mississippi State University, Starkville, Mississippi

Thesis title: "*In vitro and in vivo effects of an encapsulated butyric acid and a lactic acid producing bacteria used alone or in combination*"

B.S. in Poultry Science: Concentration in Business Management, May 2016
Mississippi State University, Starkville, Mississippi

RESEARCH AND ACADEMIC EXPERIENCE:

Assistant Professor of Meat Microbiology, January 2023 – Present
Pre and Post-Harvest Food Safety

Developing targeted approaches along the meat and poultry production chain to mitigate foodborne pathogens by: (1) Identifying potential indicator populations of pathogen contamination or reduced shelf-life; (2) Developing quantitative molecular approaches to quantitate pathogen contamination accurately; (3) Developing multi-hurdle approaches to be utilized during and post-processing that reduce pathogen load and improve shelf-life of the product.

Postdoctoral Research Associate, December 2020 – December 2022
Pre and Post-Harvest Food Safety
Under the direction of Dr. Steve Ricke, University of Wisconsin-Madison

Using next generation sequencing, traditional microbiological analyses, and physiological measurements to develop targeted approaches to mitigate pathogens and improve bird health and welfare at the pre and post-harvest level.

Graduate Research Assistant*,* January 2018 – December 2020
Pre and Post-Harvest Food Safety
Under the direction of Dr. Steve Ricke, University of Arkansas

Investigated organic and inorganic acids as short duration dips and sprays as means to reduce common pathogens (*Salmonella*, *Campylobacter jejuni*, and *Escherichia coli*) among raw chicken carcasses and parts.

RESEARCH AND ACADEMIC EXPERIENCE:

Graduate Research Assistant, June 2016 – December 2017
Evaluating Dietary Alternatives, lactic acid producing bacteria, butyric acid, and their combination, in vitro and in vivo.
Under the direction of Dr. Aaron Kiess, Mississippi State University

Evaluated lactic acid producing bacteria and encapsulated butyric acid on *Salmonella* prevalence, *in vitro,* over an 8 h period. Also evaluated the effect of these feed amendments, and their combination on day 0-57 performance, processing, intestinal and immune tissues, α1-AGP, and intestinal histology.

Recipient of CALS' Undergraduate Research Scholars Program, August 2014 – May 2016
Windrowing Poultry Litter after a Broiler House is Sprinkled with Water
Under the direction of Dr. Aaron Kiess, Mississippi State University

Litter was analyzed for moisture, pH, particle size, N, P, K, and NH_3. Manuscript published in Journal of Applied Poultry Research in 2018 (2018 top ten most read articles in JAPR).

PROFESSIONAL EXPERIENCE:

Residence Advisor, July 2013- May 2016
Mississippi State University, Starkville, Mississippi

Created community among residence, supervised and cared for residents, enforced rules and ensured safety of residents, and coordinated staff development.

Poultry Production and Processing Internship*,* May 2014-July 2014
Tyson Foods, Temperanceville, Virginia

Received experience in a poultry processing facility, hatchery, broiler farms, vaccination procedures, pullet farms, and breeder facilities.

TEACHING EXPERIENCE:

Co-Instructor, Scientific Study of Foods (FDSC 1410), Spring 2024 – Present
Instructed at Animal Science Department, University of Wyoming, Laramie, WY

Introductory food science course where students are led through the fundamentals of food science via designing a 12-course meal.

Instructor, Food Microbiology (FDSC 4090/5090), Spring 2023 – Present
Instructed at Animal Science Department, University of Wyoming, Laramie, WY

Didactic course which discusses microorganisms and theory of their growth and survival in relation to spoilage and preservation of foods and health hazards in foods.

Instructor, Food Microbiology Lab (FDSC 4100/5100), Spring 2023 – Present
Instructed at Animal Science Department, University of Wyoming, Laramie, WY

Wet lab where students are presented and taught laboratory assays and techniques used currently in the food and meat industry.

TEACHING EXPERIENCE:

Guest Lecturer, Environmental Health (BIOL 617), April 2024
Instructed by Dr. Anuradha Gosh, Pittsburgh State University, Pittsburg, KS

Provided a guest lecturer entitled: "Control of Microorganisms in Foods: Regulatory Agencies & Preventative Control."

Guest Lecturer, Postgraduate Poultry Health Sciences, February 2024
Instructed by Dr. Gunther Antonissen, University of Ghent, Blegium

Provided a guest lecturer entitled: "Pre-harvest approaches to improve poultry meat and egg safety."

Lecturer, Bioinformatic Tools for Microbiome Sequencing, Fall 2021 – Spring 2022
Instructed at Meat Science and Animal Biologics Discovery program, Animal and Dairy Sciences, University of Wisconsin – Madison, Madison, WI

Hands-on course taught to 7 students within the Meat Science and Animal Biologics Discovery program at UW-Madison on the use of bioinformatic tools such as QIIME2. Students were led through the analyzation of a given dataset and then provided the oversight to analyze and prepare their own data sets for publication within the class.

Guest Lecturer, Introduction to Animal and Dairy Sciences, Fall 2021 – Fall 2022
Instructed by Eric Ronk and MaryGrace Erickson, Animal and Dairy Sciences, University of Wisconsin – Madison, Madison, WI

Guest lecturer during the poultry laboratory portion of the course. Covered poultry egg grading and quality according to USDA and current industry practices.

Guest Lecturer, Introduction to Meat Science and Technology (AN SCI 305), Fall 2022
Instructed by Dr. Jim Clause, Animal and Dairy Sciences, University of Wisconsin – Madison, Madison, WI

Guest lecturer during the meat microbiology portion of the course. Covered major pathogens (bacterial, viral, and parasitic) and the intrinsic and extrinsic factors contributing to the growth of bacteria and parasites in meat and poultry during the lecture portion of the course (2 lectures). Conducted wet lab experiments where students could understand the impact of intrinsic factors on bacteria, as well as, how to detect microbial spoilage.

Guest Lecturer, Introduction to Meat Science and Technology (AN SCI 305), Spring 2021
Instructed by Dr. Jim Clause, Animal and Dairy Sciences, University of Wisconsin – Madison, Madison, WI

Guest lecturer during the poultry laboratory portion of the course. Covered poultry processing according to USDA and current industry practices. Conducted a hands-on laboratory at the Meat Science and Animal Biologics Discovery USDA inspected processing facility. Students were allowed to eviscerate their own birds and prepare for final inspection.

TEACHING EXPERIENCE:

Guest Lecturer, Seminar in Animal Nutrition, Spring 2021
Instructed by Dr. Tom Crenshaw, Animal and Dairy Sciences, University of Wisconsin – Madison, Madison, WI

Seminar entitled "Organic Acids and their Potential to Modify the Avian Gastrointestinal Tract." Presented current and ongoing research revolving around the use of organic acids in poultry diets.

Teaching Assistant (Unofficial), Avian Anatomy and Physiology, 2014 – 2017
Under the direction of Dr. Aaron Kiess, Mississippi State University, Starkville, MS

Guest lecturer and directed laboratory experiments when needed in PO 4844. Prepared and assisted weekly laboratory experiments and proctored laboratory exams.

GRADUATE ADVISEMENT AND MENTORING

Graduate Advisement, 2023 – Present
Animal Science Department, University of Wyoming, Laramie, WY 82071

Md. Murad Parvez (Doctorate), 2025 – Present (Expected Fall 2027)
Mack Myer (Masters), 2023 – Present (Expected Summer 2025, committed to Ph.D)

Graduate Student Mentorship, 2018 – Present
Animal Science Department, University of Wyoming, Laramie, WY 82071

Md. Murad Parvez (Doctorate), 2025 – Present
Leslie Sims (Masters), 2024 – Present
Christopher Antonio Quintanal Segarra (Masters), 2024 - Present
Mack Myer (Masters), 2023 – Present
Aniket Sharma (Doctorate), 2023 – Present
Olivia Chase (Masters), 2023 – August 2024
Jake Gillespie (Masters), 2023 – December 2024

Meat Science and Animal Biologics Discovery, University of Wisconsin, Madison, WI 53706

Ashley Tarcin (Masters), 2024 – Present
Elena Olson (Doctorate), 2020 – 2024
Lyndsey Wythe (Masters), 2020 – 2022
Aaron Bodie (Doctorate), 2020 – 2022
Jessica Brown (Doctorate), 2021 – 2022

Center for Food Safety, University of Arkansas, AR 72704

Hao Shi (Masters), 2018 – 2019
Aaron Bodie (Masters), 2018 – 2020

GRADUATE ADVISEMENT AND MENTORING

Undergraduate Student Mentorship, 2018 – Present
Animal Science Department, University of Wyoming, Laramie, WY 82071
Molly Sackmann, 2024 – Present
Meat Science and Animal Biologics Discovery, University of Wisconsin, Madison, WI 53706
Ashley Tarcin, 2021 – 2024
Maria Rivera, 2022 – 2022
Blythe Salamone, 2021 - 2022
Spencer Lavin, 2021 – 2022
Center for Food Safety, University of Arkansas, AR 72704
Spencer Briggs, 2020 – 2021
Keaton McDorman, 2020 – 2021
Zachary (Gunner) Lawless, 2019 - 2021
Jordan (Taylor) Looper, 2019 – 2021
Madison Looper, 2018 – 2021
Hayley Thompson, 2019 – 2021
Lindsey Wythe, 2019 – 2020
Adam Lattin, 2018 - 2019
Jessica Woitte, 2018 -2019

Highschool Student Mentorship, 2024 – Present
Animal Science Department, University of Wyoming, Laramie, WY 82071
Marisha Blunn, 2024 – Present

PUBLICATIONS (IN REVIEW):

([*]Co-first author; [#]Corresponding or co-corresponding author)

1. Retherford, S. A., K. L. woodruff, B. R. Harstine, **D. K. Dittoe**, and J. Block. The bull reproductive microbiome: a comparative analysis of microbial communities within semen and organs of the bull reproductive system. (**In Review, Biology of Reproduction)**
2. **Dittoe[#], D. K.,** K. M. Feye, C. Ovall, H. A. Thompson, and S. C. Ricke. *Salmonella* and *Campylobacter* influence the microbiota response of skin-on, bone-in chicken thighs treated with different antimicrobials. **(In Review, PLOS One)**
3. Rodriguez, J., **D. K. Dittoe**, C. A. Baker, S. H. Park, G. Almeida, S. C. Ricke, M. D. Covington, and K. E. Gibson. Comparative microbial community dynamics in a karst aquifer system and proximal surface stream in northwest Arkansas. **(In Review, Water Environment Research)**
4. **D. K. Dittoe[#]**, C. A. O'Bryan, J.F. Legako, and S. C. Ricke A shelf-life perspective on the developments and advances in packaging materials for meats. (Special Review Based on Concurrent Session at the 2023 Reciprocal Meats Conference) (**In Review, Meat and Muscle Biology)**

PUBLICATIONS (IN DRAFT):
([*]Co-first author; [#]Corresponding or co-corresponding author)

1. **Dittoe, D. K.**, A. Menconi, and S. C. Ricke. Microbiota composition of the ileum and ceca of colony-enriched and cage-free egg layer production systems.
2. **Dittoe[#], D. K**., M. Rivera, H. A. Thompson, M. P. Looper, J. T. Looper, S. C. Briggs, K. P. McDorman, and S. C. Ricke. Consequences of different shipping methods on the poultry cecal microbiota.
3. **Dittoe, D. K.,** C. Miller, K. Kessler, and S. C. Ricke. Determining the microbiota composition of poultry litter during an extended downtime between flocks.
4. **D. K. Dittoe[#],** J. A. Brown. C. B. Austin, K. B. Mikkelson, B. Hughes, and S. C. Ricke. Efficacy of acidified processing antimicrobials on pathogen reduction in poultry, pork, and beef.

PUBLICATIONS:
([*]Co-first author; [#]Corresponding or co-corresponding author)

1. Bodie, A. R., E. G. Olson, **D. K. Dittoe**, M.J. Rothrock Jr., and S. C. Ricke. 2025. Assessing microbial differences associated with *Campylobacter* inoculated poultry rinsates cultured on selective and non-selective plates. Discover Bacteria 2:8. doi: 10.1007/s44351-025-00017-7
2. Olson, E.G., **D.K. Dittoe**, W.E. Chaney, A.M. Binnebose, and S.C. Ricke. 2025. Potential of *Saccharomyces cerevisiae* fermentation-derived postbiotic technology in mitigating multiple drug-resistant *Salmonella enterica* serovars in an in vitro broiler cecal model. PLOS One 20(4): e0320977 doi: 10.1371/journal.pone.0320977
3. Olson, E. G., **D. K. Dittoe**, C. C. Chatman, E. L-W. Majumder, H. C. Mantovani, and S. C. Ricke. 2025. Deaminase inhibitor and casein hydrolysates drive microbial shifts favoring *Campylobacter jejuni* in an in vitro poultry cecal model. Journal of Applied Microbiology. 136(3): lxaf046. doi: 0.1093/jambio/lxaf046
4. Ricke, S. C., C. A. O'Bryan, **D. K. Dittoe.** 2025. Nanoparticle approaches for food safety applications: In Historical and current perspectives. In Nanotechnology Safety, 2nd Edition, W. S. Khan, E. Asmatulu, and R. Asmatulu (Eds.). pg 157-186. doi: 10.1016/B978-0-443-15904-6.00020-4
5. Olson, E. G., **D. K. Dittoe**, A.C. Micciche, D. Stock, and S. C. Ricke. 2024. Microbiome analyses of poultry feeds: Comparison of five different DNA extraction methods. Journal of Environmental Science and Health, Part B 59(7): 378-389. doi: 10.1080/03601234.2024.2353002.
6. Olson, E. G., **D. K. Dittoe**, A.C. Micciche, D. Stock, P. M. Rubinelli. M. J. Rothrock Jr., and S. C. Ricke. 2024. Microbiome analyses of poultry feeds: Part II. Comparison of different poultry feeds. Journal of Environmental Science and Health, Part B 59(8): 448-482. doi: 10.1080/03601234.2024.2361596

PUBLICATIONS:

(*Co-first author; #Corresponding or co-corresponding author)

7. Olson, E. G., **D. K. Dittoe**, C. C. Chatman, E. L-W. Majumder, and S. C. Ricke. 2024. *Campylobacter jejuni* and casein hydrolysate addition: Impact on poultry in vitro cecal microbiota and metabolome. PLoS ONE 19(5): e0303856. doi: 10.1371/journal.pone.0303856

8. Chatman, C. C., Olson, E. G., **D. K. Dittoe**, E. L-W. Majumder, and S. C. Ricke. 2024. Co-exposure to polyethylene fiber and *Salmonella enterica* Typhimurium alters microbiome and metabolome of *in vitro* chicken cecal mesocosms. Applied and Environmental Microbiology 90(8): e00915-24. doi: 10.1128/aem.00915-24

9. **Dittoe[#], D. K.,** K. M. Feye, C. Ovall, H. A. Thompson, and S. C. Ricke[#]. 2024. Exploiting the microbiota of organic and inorganic acid-treated raw poultry products to improve shelf life. Frontiers in Microbiology 15: 1348159. doi: 10.3389/fmicb.2024.1348159

10. Olson, E. G., **D. K. Dittoe**, C. C. Chatman, E. L-W. Majumder, and S. C. Ricke. 2024. General media over enrichment media supports growth of *Campylobacter jejuni* and maintains poultry cecal microbiota enabling translatable in vitro microbial interaction experiments. Journal of Applied Microbiology 135(1): lxad312. doi: 10.1093/jambio/lxad312

11. Dittoe, D. K., E. G. Olson, L. A. Wythe, Z. G. Lawless, D. R. Thompson. L. M. Perry, and S. C. Ricke. 2024. Mitigating the attachment of *Salmonella* Infantis on isolated poultry skin with cetylpyridinium chloride. PLoS ONE 18(12): e0293549. doi: 10.1371/journal.pone.0293549

12. Bodie, A. R., L. A. Wythe, **D. K. Dittoe,** M. J. Rothrock, Jr, C. A. O'Bryan, and S. C. Ricke. 2024. Alternative Additives for Organic and Natural Ready-to-Eat Meats to Control Spoilage and Maintain Shelf Life: Current Perspectives in the United States. Foods 13(3): 464. doi: 10.3390/foods13030464

13. Brown, J. A., **D. K. Dittoe**, C. B. Austin, K. B. Mikkelson, B. Hughes, and S. C. Ricke. 2024. Utilization of microbiota analyses to assess the antimicrobial efficacy of peracetic acid on meat products. Meat and Muscle Biology (8):1. doi: 10.22175/mmb.16818

14. Bodie, A. R.., **D. K. Dittoe**, T. Stephens, S. Applegate, and S. C. Ricke. 2023. Adaptation of a commercial qualitative BAX® RT-PCR assay to quantify *Campylobacter* spp. in whole bird carcass rinses. Foods 13: 56. doi: 10.3390/foods13010056

15. Wall, D. C., **D. K. Dittoe**, R. D. Mahlerios, K. E. Anderson, and N. Anthony. 2023. Evaluating the ileal and cecal microbiota composition of a 1940 heritage genetic line and a 2016 commercial line of white leghorns fed representative diets from 1940 and 2016. Applied Science 13(22): 12259. doi: 10.1101/2023.06.08.544207

16. Dittoe D. K., R. C. Anderson, T. L. Poole, T. L. Crippen, R. B. Harvey, and S.C. Ricke. 2023. Chlortetracycline concentration impact on *Salmonella* Typhimurium sustainability in the presence of porcine gastrointestinal tract bacteria maintained in continuous culture. Pathogens 12:1391. doi: 10.3390/pathogens12121454

PUBLICATIONS:
([*]Co-first author; [#]Corresponding or co-corresponding author)

18. Dittoe D. K., R. C. Anderson, N. A. Krueger, R. B. Harvey, T. L. Poole, T. L. Crippen, T. R. Callaway, and S.C. Ricke. 2023. *Campylobacter jejuni* response when inoculated in bovine in vitro fecal microbial consortia incubations in the presence of metabolic inhibitors. Pathogens 12:1391. doi: 10.3390/pathogens12121391

19. Dittoe D. K., R. C. Anderson, N. A. Krueger, R. B. Harvey, T. L. Poole, T. L. Crippen, T. R. Callaway, and S.C. Ricke. 2023. Survival of *Campylobacter jejuni* during *in vitro* culture with mixed bovine ruminal microorganisms in the presence of methanogen inhibitors. Submitted to Journal of Environmental Science and Health, Part B. 58(12): 711-717. doi: 10.1080/03601234.2023.2273754

20. Costello, M. K., P. M. Rubinelli, J. A. Brown, E. G. Olson, **D. K. Dittoe**, S. H. Park, D. R. Korver, Z. G. Lawless, D. R. Thompson, S. C. Ricke. 2023. Comparison of yeast-derived commercial feed additives on *Salmonella* Enteritidis survival and microbiota populations in rooster cecal in vitro incubations. PLOS One 18(12): e0295657. doi: 10.1371/journal.pone.0295657.

21. Wythe, L. A., **D. K. Dittoe**, and S. C. Ricke. 2023. Advancements in poultry nutrition and genetics, the role of antibiotic growth promoters, and the introduction of feed additive alternatives. In Direct Fed Microbials/Prebiotics for Animals: Science and Mechanisms of Action, 2nd Edition, T.R. Callaway and S.C. Ricke (Eds.), Springer Science, New York, NY.

22. Dittoe, D. K., C. N. Johnson, J. A. Bryrd Jr, S. C. Ricke, A. Piva, E. Grilli, and C. L. Swaggerty. 2023. Impact of a blend of microencapsulated organic acids and botanicals on the microbiome of commercial broilers under clinical necrotic enteritis. Animals 13(10): 1627. doi: 10.3390/ani13101627

23. Gast, R. K., **D. K. Dittoe**, and S. C. Ricke. 2022. *Salmonella* in eggs and egg-laying chickens: pathways to effective control. Critical Reviews in Microbiology. doi: 10.1080/1040841X.2022.2156772

24. Ricke, S. C., **D. K. Dittoe**, A. A. Tarcin, and M. J. Rothrock Jr. 2022. Communicating the utility of the microbiome and bioinformatics to small flock poultry producers. Poultry Science 101788. doi: 10.1016/j.psj.2022.101788

25. Olson, E. G., **D. K. Dittoe**, J. A. Jendza, D. A. Stocks, and S. C. Ricke. 2022. Application of microbial analyses to feeds and potential implications for poultry nutrition. Poultry Science 101789. doi: 10.1016/j.psj.2022.101789

26. Ricke, S. C., **D. K. Dittoe**, and E. G. Olson. 2022. Microbiome applications for laying hen performance and egg production. Poultry Science 101(5): 101784. doi: 10.1016/j.psj.2022.101784

27. Dittoe, D. K., E. G. Olson, and S. C. Ricke. 2022. Impact of the gastrointestinal microbiome and fermentation metabolites on broiler performance. Poultry Science 101(5): 101786. doi: 10.1016/j.psj.2022.101786

28. Ricke, S. C., **D. K. Dittoe**, J. A. Brown, and D. R. Thompson. 2022. Practical opportunities for microbiome analyses and bioinformatics in poultry processing. Poultry Science 101(5): 101787. doi: 10.1016/j.psj.2022.101787

PUBLICATIONS:
([*]Co-first author; [#]Corresponding or co-corresponding author)

29. Wages, J. A., **D. K. Dittoe**, K. M. Feye, and S. C. Ricke. 2022. Consequences of implementing neutralizing buffered peptone water in commercial poultry processing on the microbiota of whole bird carcass rinses and the subsequent microbiological analyses. Frontiers in Microbiology. doi: 10.3389/fmicb.2022.813461

30. Weinroth, M. D., A. D. Belk, C. Dean, N. Noyes, **D. K. Dittoe**, M. J. Rothrock, Jr., S. C. Ricke, P. R. Myer, M. T. Henniger, G. A. Ramírez, B. B. Oakley, K. L. Summers, A. M. Miles, T. B. Ault-Seay, Z. Yu, J. Metcalf, and J. Wells. 2022. Considerations and Best Practices in Animal Science 16S rRNA gene sequencing Microbiome Studies. Journal of Animal Science 100(2): 1 – 18. doi: 10.1093/jas/skab346.

31. Bodie*, A. R., **D. K. Dittoe***, C. J. Knueven, and S. C. Ricke. 2022. Comparison of ready-to-eat "organic" antimicrobials, sodium bisulfate, and sodium lactate, on Listeria monocytogenes and the indigenous microbiome of organic uncured beef frankfurters stored under refrigeration for three weeks. PLoS ONE 17(1): e0262167 doi: 10.1371/journal.pone.0262167. [*]Co-first Authors

32. Wythe, L. A., **D. K. Dittoe**, K. M. Feye, E. G. Olsen, and S. C. Ricke. 2022. Reduction of *Salmonella* Infantis on skin-on, bone-in chicken thighs by cetylpyridinium chloride application and the impact on the skin microbiota. Poultry Science 101409. doi: 10.1016/j.psj.2021.101409

33. Feye, K. M., **D. K. Dittoe,** J. A. Jendza, J. P. Caldas-Cueva, B. A. Mallmann, B. Booher, G. Tellez-Isaias, C. M. Owens, M. T. Kidd, and S. C. Ricke. 2022. A comparison of formic acid or monoglycerides to formaldehyde on production efficiency, nutrient absorption, and meat yield and quality of Cobb 700 broilers. Poultry Science 100(10):101476 doi: 10.1016/j.psj.2021.101476

34. Feye, K. M., **D. K. Dittoe**, P. M. Rubinelli, E. G. Olson, and S. C. Ricke. 2021. Yeast fermentate-mediated reduction of *Salmonella* Reading and Typhimurium in an *in vitro* turkey cecal culture model. Frontiers in Microbiology 12:645301. doi: 10.3389/fmicb.2021.645301

35. Lawless, Z. G., **D. K. Dittoe**, D. R. Thompson, and S. C. Ricke. 2021. TruncTrimmer: a first step towards automating standard bioinformatic analysis. University of Arkansas. Scholar Works. https://scholarworks.uark.edu/csceuht/94/

36. Jeni, R. E., **D. K. Dittoe**, E. G. Olson, J. Lourenco, N. Corcionivoschi, S. C. Ricke, and T. R. Callaway. 2021. Probiotics and potential applications for alternative poultry production systems. Poultry Science 100(7):101156. doi: 10.1016/j.psj.2021.101156

37. Jeni, R. E., **D. K. Dittoe**, E. G. Olson, J. Lourenco, D. S. Seidel, S. C. Ricke, and T. R. Callaway. 2021. An overview of health challenges in alternative poultry production systems. Poultry Science 100(6):101173. doi: 10.1016/j.psj.2021.101173

38. Olson, E. G., **D. K. Dittoe**, A. C. Micciche, and S. C. Ricke. 2021. Identification of bacterial isolates from commercial poultry feed via 16S rDNA. Journal of Environmental Science and Health, Part B. doi: 10.1080/03601234.2020.1868236

PUBLICATIONS:
([*]Co-first author; [#]Corresponding or co-corresponding author)

39. Deng, W., **D. K. Dittoe**, H. O. Pavlidis, W. E. Chaney, Y. Yang, and S. C. Ricke. 2020. Current perspectives and potential of probiotics to limit foodborne *Campylobacter* in poultry. Frontiers in Microbiology 11:583429. doi: 10.3389/fmicb.2020.583429

40. Ricke, S.C., **D.K. Dittoe,** and K. Richardson. 2020. Formic acid as an antimicrobial for poultry production: a review. Frontiers in Veterinary Science 7: 563. doi: 10.3389/fvets.2020.00563

41. Castañeda, C. D., **D. K. Dittoe**, K. G. S. Wamsley, C. D. McDaniel, A. Blanch, D. Sandvang, and A. S. Kiess. 2020. *In ovo* inoculation of an Enterococcus faecium–based product to enhance broiler hatchability, live performance, and intestinal morphology. Poultry Science. doi: 10.1016/j.psj.2020.08.002.

42. Olson, E. G., L. A. Wythe, **D. K. Dittoe**, K. M. Feye, and S. C. Ricke. 2020. Application of Amplon™ in combination with peroxyacetic acid for the reduction of Nalidixic Acid Resistant *Salmonella* Typhimurium and *Salmonella* Reading on skin-on tom turkey drumsticks. Poultry Science. doi: 10.1016/j.psj.2020.08.078.

43. 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: 751. doi:10.3389/fmicb.2020.00751

44. Blevins, R. E., **D. K. Dittoe**, K. M. Feye, L. Bench, B. J. Bench, and S. C. Ricke. 2020. *Campylobacter* and *Salmonella* levels and chemical composition of commercial whole bird carcass pre-chiller rinses. Journal of Agriculture and Food Research 2:100041. doi: 10.1016/j.jafr.2020.100041.

45. Micciche, A. C., R. D. Barabote, **D. K. Dittoe**, S. C. Ricke. 2020. *In silico* genome analysis of an acid mine drainage species, *Acidiphilium multivorum,* for potential commercial acetic acid production and biomining. Journal of Environmental Science and Health, Part B. 15: 1-8. doi: 10.1080/03601234.2019.1710985

46. Dittoe, D. K., S. C. Ricke, and A. S. Kiess. 2019. Commercial poultry production and gut function: a historical perspective. In Improving gut health in poultry, S. C.Ricke (Ed.), Burleigh Dodds, Philadelphia, PA. Pg 3-30. doi: 10.19103/AS.2019.0059.01

47. Blevins, R. E., K. M. Feye, **D. K. Dittoe**, L. Bench, B. J. Bench, and S. C. Ricke. 2019. Aerobic plate count, *Salmonella* and *Campylobacter* loads of whole bird carcass rinses from pre-chillers with different water management strategies in a commercial poultry processing plant. Journal of Environmental Science and Health, Part B. 55(2): 155-165. doi:10.1080/03601234.2019.1670522.

48. Feye, K. M., **D. K. Dittoe**, Z. Shi, J. Woitte, C. M. Owens, M. H. Kogut, and S. C. Ricke. 2019. The reduction of pathogen load on Ross 708 broilers when using different sources of commercial peracetic acid sanitizers in a pilot processing plant. Microorganisms 7(11): 503. doi: 10.3390/microorganisms7110503

PUBLICATIONS:
([*]Co-first author; [#]Corresponding or co-corresponding author)

49. Shi, Z., **D. K. Dittoe**, K. M. Feye, M. Kogut, S. C. Ricke. 2019. Short communication: preliminary differences identified in genes responsible for biofilm formation in poultry isolates of *Salmonella enterica* Heidelberg, Enteritidis, and Kentucky. Microorganisms, 7(7), 196. doi: 10.3390/microorganisms7070196

50. Shi, Z., **D. K. Dittoe**, and S. C. Ricke. 2019. Non-molecular characterization of pellicle formation by poultry *Salmonella* Kentucky strains and other poultry-associated *Salmonella* serovars in Luria Bertani broth. Journal of Environmental Science and Health, Part B. 54. 1-7. doi:10.1080/03601234.2019.1661210.

51. Ricke, S. C., K. Richardson, and **D. K. Dittoe**. 2019. Formaldehydes in feed and their potential interaction with the poultry gastrointestinal tract microbial community–a review. Frontiers in Veterinary Science. 6: 188. doi: 10.3389/fvets.2019.00188.

52. Bodie, A.R. **D.K. Dittoe**, K. M. Feye, C. J. Knueven, and S. C. Ricke. 2019. Application of an alternative inorganic acid antimicrobial for Controlling *Listeria monocytogenes* in frankfurters. Frontiers in Sustainable Food Systems. 3. 34. doi: 10.3389/fsufs.2019.00034.

53. Dittoe, D. K., J. A. Atchley, K. M. Feye, J. Lee, C. J. Knueven, and S. C. Ricke. 2019 The efficacy of sodium bisulfate salt (SBS) alone and combined with peracetic Acid (PAA) as an antimicrobial on whole chicken drumsticks artificially inoculated with *Salmonella* Enteritidis. Frontiers in Veterinary Science. 6: 6. doi: 10.3389/fvets.2019.00006.

54. Dittoe, D. K., K.M. Feye, B. Peyton, D. Worlie, M. J. Draper, and S. C. Ricke. 2019. The addition of Viriditec^{TM} aqueous ozone to peracetic acid as an antimicrobial spray increases air quality while maintaining *Salmonella* Typhimurium, non-pathogenic *Escherichia coli*, and *Campylobacter jejuni* reduction on whole carcasses. Frontiers in Microbiology 9:3180. doi: 10.3389/fmicb.2018.03180

55. Dittoe, D. K., S. C. Ricke, and A. S. Kiess. 2018. Organic acids and potential for modifying the avian gastrointestinal tract and reducing pathogens and disease. Frontiers in Veterinary Science. 5. 216. Doi:10.3389/fvets.2018.00216.

56. Dittoe, D. K., C. D. McDaniel, and A. S. Kiess. 2018. Windrowing poultry litter after a broiler house is sprinkled with water. Journal of Applied Poultry Research 27(1):1-15. ***Top Ten Most Read JAPR Articles in 2018 (https://academic.oup.com/japr/pages/highly_read_articles)**

CONFERENCE AND SYMPOSIA PROCEEDINGS:

1. **Dittoe#, D. K**. 2025. Optimizing your microbiome tools for practical application in food settings. Symposia: To rotate or not? How can microbiome analysis and biofilm tools broadly improve sanitation and answer this age-old question? International Association for Food Protection Annual Meeting, Cleveland, Ohio, 2025.
2. **Dittoe#, D. K.,** M. P. Myer, C. B. Austin, E. G. Olson, C. Ovall, A. A. Tarcin, and S. C. Ricke. 2025. Microbial ecology of poultry leg quarters treated with a short-duration dip (15-s) of sodium acid sulfate. Poultry Science Association Annual Meeting, Raleigh, North Carolina, July 2025.
3. Myer, M. P., E. Greene, S. Dridi, M. R. Sackmann, C. L. Gifford, and **D. K. Dittoe#.** 2025. Pre-harvest heat stress and its effect on the post-harvest shelf-life of chicken carcasses. Poultry Science Association Annual Meeting, Raleigh, North Carolina, July 2025.
4. Myer, M. P., J. N. Hernandez, E. R. Barr, C. Ovall, C. L. Gifford, and **D. K. Dittoe#.** 2025. The effects of sodium bisulfate, an inorganic acid, used as a short-duration dip on the quality and shelf-life of ground beef. Reciprocal Meats Conference, Columbus, Ohio, June 2025.
5. Myer, M. P., J. N. Hernandez, E. R. Barr, C. Ovall, C. L. Gifford, and **D. K. Dittoe#.** 2025. The efficacy of sodium bisulfate when applied as a short-duration antimicrobial dip to control shiga toxin-producing *E. coli* and *Salmonella* spp. on beef trim. Reciprocal Meats Conference, Columbus, Ohio, June 2025.
6. **Dittoe#, D. K.,** M. P. Myer, and J. Greve-Peterson. 2025. Enhancing beef processing landscapes: leveraging microbiome insights and sanitizer rotation for optimal safety. Reciprocal Meats Conference, Columbus, Ohio, June 2025.
7. Fuhrmann, S., M. P. Myer, C. L. Gifford, and **D. K. Dittoe#.** 2025. Impact of the lamb processing environment on aerobic mesophile levels in fabricated products. Reciprocal Meats Conference, Columbus, Ohio, June 2025.
8. Retherford, S., K. l. Woodruff, **D. K. Dittoe**, and J. Block. 2024. Reproduction, Fertility and Development 37. doi: 10.1071/RDv37n1Ab158
9. Chase, O., **D. K. Dittoe**, J. Garfield, and B. Bisha. 2024. Absolute quantification of *Campylobacter jejuni* in raw chicken breast. International Association for Food Protection Annual Meeting, Long Beach, California, July 2024.
10. **Dittoe, D. K.,** C. B. Austin, E. G. Olson, and S. C. Ricke. 2024. Shelf-life extension of poultry leg quarters treated with a short-duration dip (15-s) of sodium acid sulfate. International Association for Food Protection Annual Meeting, Long Beach, California, July 2024.
11. Tolba. S., M. D. Kalmer, J. Z. Figur, A. A. Tarcin, H. Shi, **D. K. Dittoe**, and S. C. Ricke. 2024. The impact of aviary-style housing on behavior, stress response, and egg quality in mature White Leghorn laying hens. Poultry Science Association Annual Meeting, Louisville, Kentucky, July 2024.
12. Olson, E. G., **D. K. Dittoe**, J. A. Brown, E. Chaney, A. Binnebose, and S. C. Ricke. 2024. In vitro cecal model for MDR *Salmonella enterica* serovars supplemented with a *Saccharomyces cerevisiae* fermentation-derived postbiotic technology. Poultry Science Association Annual Meeting, Louisville, Kentucky, July 2024.
13. Tarcin, A. A., **D. K. Dittoe**, J. A. Brown, S. Tolba, V. A. Leone, and S. C. Ricke. 2024. Elucidating the feather microbiota composition of conventional and aviary housed laying

hens over time. Poultry Science Association Annual Meeting, Louisville, Kentucky, July 2024.

14. Dittoe, D. K. 2024. What can the microbiome do for the industry. Concurrent Session. Reciprocal Meats Conference, Oklahoma City, Oklahoma, June 2024.

15. Myer, M. P., C. B. Austin, E. G. Olson, S. C. Ricke, and **D. K. Dittoe**. Application of sodium acid sulfate as a short-duration dip (15-s) on the quality of poultry leg quarters treated over 28-d period. Reciprocal Meats Conference, Oklahoma City, Oklahoma, June 2024.

16. Gillespie, J. W., M. P. Myer, **D. K. Dittoe**, and C. L. Gifford. 2024. Impact of lighting source and display duration on shelf-life characteristics of vacuum roll stock packaged ground beef. Reciprocal Meats Conference, Oklahoma City, Oklahoma, June 2024.

17. Olson, E. G., **D. K. Dittoe**, C. Chatman, E. L. Majumder, and S. C. Ricke. 2023. Peptide structures on cecal microbiota inoculated with *Campylobacter jejuni*. International Association for Food Protection Annual. Meeting, Toronto, Ontario, July 2023.

18. Dittoe, D. K. 2023. Connecting the dots…Understanding microbial ecology to extend shelf-life. Concurrent Session. Reciprocal Meats Conference, St. Paul, Minnesota, June 2023.

19. Wythe, L. A., **D. K. Dittoe**, A. Schaeffer, S. C. Ricke. 2023. Describing the ileal microbiota development in broilers when fed varying levels of a yeast fermentate product. International Poultry Scientific Forum, Atlanta, GA, January 2023.

20. Dittoe, D. K., L. A. Wythe, A. Schaeffer, and S. C. Ricke. 2023. Mitigation of *Salmonella* Typhimurium in an *in vitro* broiler cecal culture with a yeast fermentate. International Poultry Scientific Forum, Atlanta, GA, January 2023.

21. Dittoe, D. K., L. A. Wythe, A. Schaeffer, and S. C. Ricke. 2023. Impact of a yeast fermentate on *Salmonella* Typhimurium control in an *in vitro* broiler intestinal model. International Poultry Scientific Forum, Atlanta, GA, January 2023.

22. Brown, J. A., **D. K. Dittoe**, C. B. Austin, K. B. Mikkelson, B. Hughes, and S. C. Ricke. 2023. Impacts of acidified peracetic acid on the survival of *Salmonella* and *Campylobacter* on poultry thighs. International Poultry Scientific Forum, Atlanta, GA, January 2023.

23. Tarcin, A. A., **D. K. Dittoe**, V. A. Leone, S. Tolba, and S. C. Ricke. 2023. Conventional and aviary-style housing drive unique feather microbiota diversity and composition in laying hens. International Poultry Scientific Forum, Atlanta, GA, January 2023.

24. Dittoe, D. K., M. Rivera, H. A. Thompson, M. P. Looper, J. T. Looper, S. C. Briggs, K. P. McDorman, and S. C. Ricke. 2022. Consequences of different shipping methods on the poultry cecal microbiota. Poultry Science Association Annual Meeting, San Antonio, Texas, July 2022.

25. Dittoe, D. K., C. Miller, K. Kessler, and S. C. Ricke. 2022. Determining the microbiota composition of poultry litter during an extended downtime between flocks. Poultry Science Association Annual Meeting, San Antonio, Texas, July 2022.

26. Brown, J. A., **D. K. Dittoe**, D. Korver, P. M. Rubinelli, S. Park, Z. G. Lawless, D. R. Thompson, and S. C. Ricke. 2022. Effect of yeast-derived prebiotics on the cecal microbiota of roosters during *in vitro* incubations. Poultry Science Association Annual Meeting, San Antonio, Texas, July 2022.

CONFERENCE AND SYMPOSIA PROCEEDINGS:

27. Olson, E. G., **D. K. Dittoe**, and S. C. Ricke. 2022. Molecular characterization of the interaction between *Campylobacter* and cecal microbiota in the presence or absence of different forms of casein *in vitro*. Poultry Science Association Annual Meeting, San Antonio, Texas, July 2022.

28. Wythe, L. A., **D. K. Dittoe**, A. Schaeffer, and S. C. Ricke. 2022. Supplementation of a yeast fermentate on broiler performance and processing characteristics in commercial diets. Poultry Science Association Annual Meeting, San Antonio, Texas, July 2022.

29. Dittoe, D. K., J. A. Brown, C. B. Austin, K. B. Mikkelson, B. Hughes, and S. C. Ricke. 2022. Effectiveness of peracetic acid as a short-duration antimicrobial spray to mitigate *Salmonella* spp. and *Campylobacter jejuni* while not disrupting the microbiota of inoculated poultry thighs. Reciprocal Meats Conference, Des Moines, Iowa, June 2022.

30. Brown, J. A., **D. K. Dittoe**, C. B. Austin, K. B. Mikkelson, B. Hughes, and S. C. Ricke. 2022. Application of a short-term peracetic acid spray on inoculated beef trim reduces key foodborne pathogens without changing the overall microbiota composition. Reciprocal Meats Conference, Des Moines, Iowa, June 2022.

31. Bodie, A. R., **D. K. Dittoe,** S. Applegate, T. Stephens, and S. C. Ricke. 2022. Quantification of *Campylobacter jejuni*, *coli* and *lari* in poultry post-chill whole bird carcass rinses utilizing a shortened enrichment time and PCR. International Poultry Scientific Forum, Atlanta, GA, January 2022.

32. Dittoe, D. K. 2021. Feed additives: manipulating gut microbial interactions. Symposium: antagonism versus synergism: poultry gut microbiota interactions and impact on the host. Poultry Science Association Virtual Annual Meeting, July 2021. *****Chairs: Ricke, S. C and **D. K. Dittoe**.

33. Dittoe, D. K., A. Menconi, and S. C. Ricke. 2021. Microbiota composition of the ileum and ceca of colony-enriched and cage-free egg layer production systems. Poultry Science Association Virtual Annual Meeting, July 2021.

34. Dittoe, D. K., E. G. Olson, L. A. Wythe, L. M. Perry, and S. C. Ricke. 2021. Use of cetylpyridinium chloride (CPC) as a short duration dip for the reduction of *Salmonella* Infantis and *hilA* expression levels on poultry skin. Poultry Science Association Virtual Annual Meeting, July 2021.

35. Wythe, L. A., **D. K. Dittoe**, E. G. Olson, K. M. Feye, L. M. Perry, and S. C. Ricke. 2021. Reduction of *Salmonella* Infantis on skin-on, bone-in chicken thighs by cetylpyridinium chloride application and the impact on the skin microbiota. Poultry Science Association Virtual Annual Meeting, July 2021.

36. Olson, E. G., **D. K. Dittoe**, L. A. Wythe, Z. G. Lawless, L. M. Perry, and S. C. Ricke. 2021. Effect of cetylpyridinium chloride (CPC) on the microbiome of *Salmonella* Typhimurium and *S.* Infantis inoculated chicken skin. Poultry Science Association Virtual Annual Meeting, July 2021.

37. Bodie, A. R., **D. K. Dittoe**, S. Applegate, T. Stephens, and S. C. Ricke. 2021. Quantification of *Campylobacter jejuni* in poultry processing rinses utilizing shortened enrichment times and RT-PCR. International Association of Food Protection Annual Meeting, Phoenix, AZ, July 2021.

38. Bodie, A. R., **D. K. Dittoe**, S. Applegate, T. Stephens, and S. C. Ricke. 2021. Determination of detection limits of a commercial RT-PCR for *Campylobacter jejuni* in poultry rinsates International Association of Food Protection Annual Meeting, Phoenix, AZ, July 2021.

CONFERENCE AND SYMPOSIA PROCEEDINGS:

39. Dittoe, **D. K.,** K. M. Feye, and S. C. Ricke. 2020. *Salmonella* and *Campylobacter* influence the microbiota response of skin-on, bone-in chicken thighs treated with different antimicrobials. Poultry Science Association Virtual Annual Meeting, July 2020.

40. Olson, E. G., L. A. Wythe, **D. K. Dittoe**, K. M. Feye, S. C. Ricke. 2020. Application of cetylpyridinium chloride (CPC) on poultry skin for the reduction of Nalidixic resistant *Salmonella* Typhimurium and *S*. Infantis on chicken skin. Poultry Science Association Virtual Annual Meeting, July 2020.

41. Olson, E. G., L. A. Wythe, **D. K. Dittoe**, K. M. Feye, S. C. Ricke. 2020. Application of Amplon® in combination with peroxyacetic acid for the reduction of *Salmonella* Typhimurium and *S*. Reading on skin-on, bone-in tom turkey drumsticks. Poultry Science Association Virtual Annual Meeting, July 2020.

42. Wythe, L. A., E. G. Olson, **D. K. Dittoe**, K. M. Feye, and S. C. Ricke. 2020. The effects of cetylpyridinium chloride for the reduction of *Salmonella* Infantis on skin-on, bone-in chicken thighs. Poultry Science Association Virtual Annual Meeting, July 2020.

43. Wythe, L. A., K. M. Feye, **D. K. Dittoe**, and S. C. Ricke. 2020. The effects of yeast fermentate prebiotic feed additive on the lactic acid producing bacteria in an *in vitro* microaerophilic cecal culture model. Poultry Science Association Virtual Annual Meeting, July 2020.

44. Clark, K. M., L. E. Anderson, J. P. Holt, **D. K. Dittoe**, and S. C. Ricke. 2020. Characterizing sow microbiome and drinking water quality at different production locations. American Association of Animal Science Virtual Annual Meeting, July 2020.

45. Dittoe, D. K., K. M. Feye, C. M. Owens, and S. C. Ricke. 2020. The reduction of pathogen load on Ross 708 Broilers when using different sources of commercial peracetic acid sanitizers in a pilot processing plant. International Poultry Scientific Forum, Atlanta, GA, January 2020.

46. Dittoe, D. K., K. M. Feye, C. Ovall, C. J. Knueven, and S. C. Ricke. 2020. Influence of organic and inorganic acids as used for poultry part dips on the emergence of spoilage organisms during a shelf-life study. International Poultry Scientific Forum, Atlanta, GA, January 2020.

47. Dittoe, D. K., K. M. Feye, Z. Shi, J. Woitte, and S. C. Ricke. 2019. Determining the efficacy of acidified sodium chlorite for the reduction of inoculated *Salmonella* and *Campylobacter* on skin-on, bone-in chicken thighs. Poultry Science Association Annual Meeting, Montreal, Canada, July 2019.

48. Dittoe, D.K., K.M. Feye, J. Jendza, A. Lattin, G. Tellez, C.M. Owens, M.T. Kidd, and S.C. Ricke. 2019. The dietary inclusion of formalin, formic acid, and 1-monoglycerides of short and medium chain fatty acids on gut morphology and body weight of Cobb 700 broilers. Poultry Science Association Annual Meeting, Montreal, Canada, July 2019.

49. Dittoe, D.K., J.A. Atchley, K.M. Feye, L.R. Meyer, C.J. Knueven, and S.C. Ricke. 2018. Effect of Sodium Bisulfate Salt on mitigating the presence of an antibiotic resistant strain of *Salmonella* Enteritidis on chicken drumsticks. Poultry Science Association Annual Meeting, San Antonio, TX, July 2018.

50. Atchley, J.A, **D.K. Dittoe**, K.M. Feye, L.R. Meyer, C.J. Knueven, and S.C. Ricke. 2018. Effect of Sodium Bisulfate Salt (SBS) on reducing the presence of an antibiotic resistant *Salmonella* Typhimurium on whole chicken wing parts. Poultry Science Association Annual Meeting, San Antonio, TX, July 2018.

CONFERENCE AND SYMPOSIA PROCEEDINGS:

51. Bodie, A.R., S.A. Kim, **D.K. Dittoe**, L.R. Meyer, C.J. Knueven, and S.C. Ricke. 2018.. Potential antimicrobial combinations for controlling *Listeria monocytogenes* in hotdogs International Association of Food Protection Annual Meeting, Salt Lake City, UT, July 2018.

52. Dittoe, D.K., K.G.S. Wamsley, C.D. McDaniel, A. Blanch, D. Sandvang, and A.S. Kiess. 2018. Changes to the gastrointestinal tract and yolk sac of broilers previously *in ovo* injected with different concentrations of GALLIPRO® Hatch. International Poultry Scientific Forum, Atlanta, GA, January 2018.

53. Dittoe, D.K., C.D. McDaniel, K.G. Wamsley, W. Zhai and A.S. Kiess. 2017. Effects of ButiPEARL™ and PrimaLac® used alone or in combination on 57 d broiler intestinal morphology and immune tissues. Poultry Science Association Annual Meeting, Orlando, FL, July 2017.

54. Dittoe, D.K., C.D. McDaniel, K.G. Wamsley, W. Zhai and A.S. Kiess. 2017. Effects of ButiPEARL™ and PrimaLac® used alone or in combination on 57 d broiler performance and processing. Poultry Science Association Annual Meeting, Orlando, FL, July 2017.

55. Dittoe, D.K., C.D. McDaniel, and A.S. Kiess. 2017. Effects of lactic acid bacteria and organic acids on the concentration of an antibiotic resistant strain of *Salmonella* Heidelberg, *in vitro.* International Poultry Scientific Forum, Atlanta, GA, January 2017.

56. Dittoe, D.K., C.D. McDaniel, and A.S. Kiess. 2015. Windrowing poultry litter after a broiler house is sprinkled with water. Poultry Science Association Annual Meeting, Louisville, KY, July 2015. -Award Winner

INVITED TALKS & DEMONSTRATIONS:

Co-Chair. Symposia: To rotate or not? How can microbiome analysis and biofilm tools broadly improve sanitation and answer this age-old question? International Association for Food Protection, Cleveland, Ohio, July 2025.

Organic acids in poultry. The Poultry Podcast Show by Wisenetix, September 2024. (https://www.youtube.com/watch?v=vdb_GnOzIFU)

Co-Chair. Concurrent Session: Microbiome's Place in Meat. Reciprocal Meats Conference, Oklahoma City, Oklahoma, June 2024.

Navigating pre and post-harvest poultry safety challenges. The Poultry Podcast Show by Wisenetix, September 2023. (https://www.youtube.com/watch?v=qZDS91ilHyM)

Co-Chair. Concurrent Session: Preservation, Packaging, and Shelf-Life Microbial Ecology: Current Applications and Future Prospects. Reciprocal Meats Conference, St. Paul, Minnesota, June 2023.

Poultry Harvest Demonstration. Master Meat Crafters: Animal Harvest & Product Utilization school, Meat Science & Animal Biologics Discovery, University of Wisconsin-Madison, January 11-13, 2022.

Carcass and Beef Trimmings Microbial Sampling Demonstration. Wisconsin Food Safety Summit, Meat Science & Animal Biologics Discovery, University of Wisconsin-Madison, November 4, 2021.

Co-Chair. Symposium: antagonism versus synergism: poultry gut microbiota interactions and impact on the host. Poultry Science Virtual Annual Meeting, July 2021.

PENDING RESEARCH GRANTS:

Breathing Easy: Validating VOC Sensor Technology For Enhanced Rangeland Livestock Monitoring, 2025 – 2027
Dr. Dana K. Dittoe (PI), University of Wyoming, Laramie, WY
Dr. Elizabeth Case (Co-PI), University of Wyoming, Laramie, WY
Dr. Debashis Dutta (Co-PI), University of Wyoming, Laramie, WY
Dr. Hannah Cunningham-Hollinger, University of Wyoming, Laramie, WY
Dr. Cody Gifford, University of Wyoming, Laramie, WY
Dr. Paulo de Mello Tavares Lima, University of Wyoming, Laramie, WY
USDA-NIFA AFRI Seed Grant (A1261 IDEAS), $300,000
Role on Project: PI

CURRENT RESEARCH GRANTS:

Pre-harvest heat stress: disruption of microbial ecology and subsequent shelf-life of raw poultry products, 2024 – 2026
Dr. Dana K. Dittoe (PI), University of Wyoming, Laramie, WY
Dr. Sami Dridi (Co-PI), University of Arkansas, Fayetteville, AR
USDA-NIFA-AFRI New Investigator Seed Grant, $300,000
Role on Project: PI

Innovations for Ranching: Real-time monitoring of volatile organic compound biomarkers for improved livestock productivity, 2024-2025
Dr. Dana Dittoe (PI), University of Wyoming, Laramie, WY
Dr. Debashis Dutta (Co-PI), University of Wyoming, Laramie, WY
Dr. Elizabeth Case (Co-PI), University of Wyoming, Laramie, WY
Dr. Hannah Cunningham (Co-PI), University of Wyoming, Laramie, WY
SI Initiative Seed Grant, $100,000 (Was originally submitted for $300,000/3yr Center Grant)
Role on Project: PI

Advancing sustainable agriculture through insect farming, 2024 – 2026
Dr. Sarah Adcock (PI), University of Wisconsin – Madison, Madison, WI
Dr. Valarie Stull (Co-PI), University of Wisconsin – Madison, Madison, WI
Dr. Steven C. Ricke (Co-PI), University of Wisconsin – Madison, Madison, WI
Dr. Mark Richards (Co-PI), University of Wisconsin – Madison, Madison, WI
Dr. Hicks (Co-PI), University of Wisconsin – Madison, Madison, WI
Dr. Nicholson (Co-PI), University of Wisconsin – Madison, Madison, WI
Dr. Jessica Hite (Co-PI), University of Wisconsin – Madison, Madison, WI
Dr. Dana Dittoe (Co-PI), University of Wyoming, Laramie, WY
Dr. Erin Silva (Co-PI), University of Wisconsin – Madison, Madison, WI
USDA-NCR-SARE, $250,000
Role on Project: Co-PI

CURRENT RESEARCH GRANTS:

The Utilization of Sodium Bisulfate and Peracetic Acid, Alone or In Combination, As Short-Term Antimicrobial Dips and Their Impact on Shelf Life, 2023 - 2024
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Dr. Dana Dittoe (Co-PI), University of Wyoming, Laramie, WY
Center for Innovative Food Technology, $25,000
Role on Project: Co-PI

COMPLETED RESEARCH GRANTS:

Investigation of the effects of Diamond V technologies on antimicrobial resistance phenotypes using *Salmonella* serovars in an in vitro cecal model, 2022 – 2023
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Dr. Dana Dittoe (Co-PI), University of Wisconsin – Madison, Madison, WI
Cargill Health Technologies, Diamond V, $39,600
Role on Project: Co-PI

Hygiena Task 1: Development and Optimization of the Hygiena BAX System for the Detection and Quantitation of *Campylobacter* in Poultry Matrices, 2021 - 2022
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Hygiena LLC., $60,000
Role on Project: Co-Project Lead

Efficacy of PAA on Inoculated Beef and Poultry Parts, 2021 – 2022
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Hydrite Chemical Co., $12,600
Role on Project: Co-Project Lead

Evaluating ProBiotein Fermentate Feed Amendments on the Cecal Microbiome of Poultry, 2020 - 2022
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Harvest Fuels Inc., $120,000
Role on Project: Project Lead

Determining the microbiota composition of poultry litter during an extended downtime between flocks, 2021 - 2022
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Elanco, $4,861
Role on Project: Co-PI

Determining the Efficacy of Cetylpyridinium Chloride for the Reduction of *Salmonella* Infantis and Reading in Poultry Processing, 2019 – 2021
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Safe Foods Co., $30,000
Role on Project: Project Lead

COMPLETED RESEARCH GRANTS:

RII Track-1: Arkansas Advancing and Supporting Science, Engineering, and Technology (ASSET) III - Multifunctional and Tunable Nanostructured Surfaces, 2015 – 2021
Dr.'s Steve Stanley (Principal Investigator), Min Zou (Co-PI), Gail McClure (Former PI), Arkansas NSF EPSCoR, Little Rock, AR
National Science Foundation, Grant No. OIA-1457888, $20,000,000 (total)
Role on Project: Project Lead for Dr. Steven Ricke's Cellulose Projects (2018 to 2021)

Determining the Effects of a Proprietary Peracetic Acid (PAA) to Reduce Pathogen Load, 2019 – 2020
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Evonik Industries AG, $30,000
Role on Project: Co-Project Lead

Influence of Organic and Inorganic Acids as Poultry Part Dips on the Population of Lactic Acid Bacteria, 2019 – 2020
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Jones-Hamilton Co., $5,000
Role on Project: Project Lead

Determining if the Combination of Ozone and Peracetic Acid Improves Air Quality Without Reducing Efficacy, 2018 – 2019
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Center Ridge Holdings, LLC., $10,000
Role on Project: Project Lead

BASF Longitudinal Study, 2018 - 2019
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
BASF Co., $120,000
Role on Project: Co-Project Lead [Objective 3: Determine the effects BASF feed amendments have on the microbiota (crop, gizzard, intestine, ceca, cloaca) and immune parameters]

Determining the Efficacy of Disponil® DB Alone or in Combination with Amplon™ and/or Peracetic Acid in Reducing Multiple Serovars of *Salmonella* Recovered from Experimentally Inoculated Chicken Wings, 2018
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Zoetis Inc., $15,000
Role on Project: Project Lead

SUBMITTED AND NON-FUNDED GRANTS:

Combating Foodborne Pathogens: Unraveling the Pathogenic Response to Food Safety Efforts, 2024 - 2026
Dr. Dana K. Dittoe (PI), University of Wyoming, Laramie, WY
Searle Scholars Program, $300,000
Role on Project: PI

Effect of dam dietary choline variations during late gestation on offspring carcass quality, gene expression, and microbiome in beef-dairy cross calves, 2022 - 2023
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
Dr. William Brown (Co-PI), University of Wisconsin – Madison, Madison, WI
UW Dairy Innovation Hub: Short-Term, High-Impact Projects, $50,000
Role on Project: Co-PI

Correlating Geosmin and Methyl-Isoborneol Levels and Corresponding Microbiota Profiles in Recirculating Aquaculture Systems and Depuration Systems to That of Commercially Raised Salmon, 2022 - 2024
Dr. Steven C. Ricke (PI), University of Wisconsin – Madison, Madison, WI
University of Wisconsin Sea Grant Institute, $230,000
Role on Project: Co-PI

INSTITUTIONAL AND PROFESSIONAL SERVICE ACTIVITIES:

Graduate Committees
Md. Murad Parvez (Advisor/Committee Chair), 2025 - Present
Mack Myer, M.S. (Advisor/Committee Chair), 2023 – Present
Leslie Sims, M.S. (Committee Member), 2024 – Present
Christopher Antonio Quintanal Segarra, M.S. (Committee Member), 2024 - Present
Jake Gillespie, M.S. (Committee Member), 2023 – Present
Aniket Sharma, Ph.D. (Committee Member), 2023 – Present
Olivia Chase, M.S. (Committee Member), 2023 – 2024

Hiring Search Committees
Meat Lab Manager (Committee Member), 2023 – 2024
Department of Animal Science, University of Wyoming, Laramie, WY
Assistant/Associate Professor of Virology (Committee Member), 2023 – 2024
Department of Veterinary Sciences, University of Wyoming, Laramie, WY
Assistant/Associate Professor of Bacteriology (Committee Member), 2023 – 2024
Department of Veterinary Sciences, University of Wyoming, Laramie, WY
Office Associate (Committee Member), 2023
Department of Animal Science, University of Wyoming, Laramie, WY

INSTITUTIONAL AND PROFESSIONAL SERVICE ACTIVITIES:

Peer Refereed Journal/Books Reviewer and Editor
Foodborne Pathogens and Diseases (Editor), 2023 – Present
MDPI Applied Sciences (Guest Editor, Reviewer), 2023 – Present
Special Issue "Applied microbial biotechnology for poultry science"
Meat Microbiology and Food Safety, Springer (Co-Editor), 2023 - Present
MDPI Pathogens (Reviewer), 2023 – Present
Frontiers in Microbiology (Reviewer), 2023 – Present
Meat and Muscle Biology (Reviewer), 2023 – Present
International Journal of Food Science and Technology (Reviewer), 2023 – Present
PLoS One (Reviewer), 2023 – Present

Professional Affiliations:
Hatch-Multistate group S1077: Enhancing Microbial Food Safety by Risk Analysis (Station Representative)
American Meat Science Association (Member and Planning Committee)
Gamma Sigma Delta, Honor Society for Agriculture
International Association for Food Protection
Poultry Science Association
Southern Poultry Science Society
The National Society of Collegiate Scholars
World Poultry Science Association

HONORS AND AWARDS:

Center Ideation Jumpstart Workshop, University of Wyoming, 2023
Doctoral Academy Fellowship, University of Arkansas, 2018 – 2020
$12,000/year and 50% graduate assistantship
Poster Session Winner, 3rd place, Category 1: Food Safety Including Fundamental Understanding of Pathogens (Graduate), Arkansas Association for Food Protection, 2019
Poster Session Winner, 3rd place, Category 2: Interventions, Pre and Post-Harvest (Graduate), Arkansas Association for Food Protection, 2019
Poster Session Winner, 3rd place, Category 4: Other and Miscellaneous (Graduate), Arkansas Association for Food Protection, 2019
Doctoral Student Travel Grant, $1100 University of Arkansas, 2019
2018 PSA Practice Session Winner, Poultry Science Graduate Association, University of Arkansas, 2018
Doctoral Student Travel Grant, $1000, University of Arkansas, 2018
Emerson Morgan Graduate Scholarship, $2,000, Delmarva Poultry Industry, 2017
Oliver J. Hubbard Memorial Scholarship, $1,500, Mississippi State University, 2016
H.F. McCarty, Jr. Family Scholarship, $1,500, Mississippi State University, 2012 – 2016
Robert H. Dunlap Loyalty Scholarship, $1,500, Mississippi State University, 2012 – 2016
Student Research Paper Certificate of Excellence, Poultry Science Association, 2015
Edward Ellis Gandy Endowed Scholarship, $1,500, Mississippi State University, 2015
Delmarva Poultry Industry Undergraduate Scholarship, $2,000, Delmarva Poultry Industry, 2012