
Bethany Baker-Cook, Ph.D.

Assistant Professor

Poultry Science

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Education and Training

2019	Ph.D. Animal and Poultry Science	University of Saskatchewan
2015	M.S. Veterinary Bioscience	University of Glasgow

Research and Professional Experience

2021-present	Assistant Professor, Department of Poultry Science, Auburn University, Auburn, Alabama
2019 – 2020	Consultant, Poultry Behavior and Welfare, AGL Technologies, Norcross, Georgia
2016–2019	Teaching Assistant, Department of Animal and Poultry Science, University of Saskatchewan, Saskatchewan, Canada

Peer-Reviewed Publications

11. Jackson, A.*, M. Quino*, A. Gautam*, M. Gilpin **, K. Still **, D. Landers, and B. Baker-Cook. The impact of multiple exposures and movement on the fear response of poultry. Submitted to Poultry Science.
10. Linhoss, J., O. Falana, J. Davis, J. Purswell, C. Edge, H. Olanrewaju, B. I. Baker-Cook, and C. Hanlon. 2024. An updated review on the effect of lighting management on broiler production and the environment of commercial broiler houses. Submitted to World's Poultry Science.
9. Escobar, C., D. Watts, A. Torbet., M.A. Bailey, J. T. Krehling, D. Landers., A.P. Jackson*, M. Gilpin **, K. Still **, L. R. Munoz, L. Orellana, Y. Adhikari, K. Macklin, B.I. Baker-Cook. (2024). Evaluating the Impact of Gypsum as a Novel Bedding Material on Broiler Performance, Foot Pad Health, and Fear Response, 103(6):103676. doi:10.1016/j.psj.2024.103676
8. Jackson, A*., D. Bourassa, and. B.I. Baker-Cook. 2023. Applied Research Note: Evaluation of head removal following euthanasia by cervical dislocation on latency insensibility and death on broiler welfare. Journal of Applied Poultry Research. 33(1): 100394. doi:10.1016/j.japr.2023.100394
7. Riggs, M., R. Hauck, B. Baker-Cook, R. Osborne, A. Pal, M. Bethonico Terra, G. Sims, A. Urrutia, L. Orellana-Galindo, M. Reina, J. DeVillena, and D. Bourassa. 2022. Meat quality of broiler chickens processed using electrical and controlled atmosphere stunning systems. Poultry Science. 102(3):102422. doi:10.1016/j.psj.2022.102422
6. Baker-Cook, B.I., S. Torrey, P. Turner, T. Knezacek, J. Nicholds, S. Gomis and K. Schwean-Lardner. 2021. Assessing the effect of water deprivation on the efficacy of on-farm euthanasia methods for broilers chickens. British Poultry Science. 62(2):157-165. doi: 10.1080/00071668.2020.1849557
5. Baker-Cook, B.I, A. Mortiz, D. Zweste, K. Schwean-Lardner, and K.L. Machin. 2021. Evaluation of intravenous T-61 as a euthanasia method for broiler chickens. Canadian Veterinary Journal. 62(4):367-373.
4. Baker-Cook, B.I., S. Torrey, T. Widowski, P. Turner, T. Knezacek, J. Nicholds and K.Schwean-Lardner. 2021. The efficacy of three on-farm euthanasia methods for broiler

chickens throughout the production cycle. *British Poultry Science*. 62(5):638-649. doi: 10.1080/00071668.2021.1921109

3. Baker, B.I.†, S. Torrey, T. Widowski, P. Turner, T. Knezacek, J. Nicholds, T. Crowe and K. Schwean-Lardner. 2020. Defining characteristics of immersion CO₂ gas for successful euthanasia of neonatal and young broilers. *Poultry Science*. 99(9) 4408-4416. doi: 10.1016/j.psj.2020.05.039
2. Baker, B.I.†, K.L. Machin, and K. Schwean-Lardner. 2019. When pain and stress interact: looking at stress-induced analgesia and stress-induced hyperalgesia in birds. *World Poultry Science*. 75(3):457-468. doi: 10.1017/S0043933919000382 1.
1. Baker, B.I.†, S. Torrey, T. Widowski, P. Turner, T. Knezacek, J. Nicholds, T. Crowe and K. Schwean-Lardner. 2019. Evaluation of carbon dioxide induction methods for the euthanasia of day-old cull broiler chicks. *Poultry Science*. 98(5): 2043-2053. [Editor's Choice] doi: 10.3382/ps/pey581

Refereed Conference Abstracts

39. Falana, O.B., Davis, J.D., **Baker-Cook, B.I.**, Fan, Z., Purswell, J.L., and Linhoss, J.E (2024). Assessment of the Thermal Environment in Commercial Broiler Houses Using Spatial Analysis. 3rd U.S. Precision Livestock Farming Conference. June 2-5, 2025.
38. Falana, O.B., Linhoss, J.E., Davis, J.D., **Baker-Cook, B.I.**, Fan, Z., Purswell, J.L., and Linhoss, J.E (2024). Assessment of thermal environment in commercial broiler houses using kriging analysis. Auburn University College of Agriculture Graduate Student Research Poster Showcase. October 24, 2024.
37. **B. I. Baker-Cook**, A. Jackson*, M. Quino*, A. Gautam*, M. Gilpin **, K. Still** and D. Landers. (2024). Assessing the impact of repeated exposure and movement on the fear response in broiler chickens. International Society for Applied Ethology Annual Meeting. Curitiba, Brazil. July 22nd-26th.
36. Jackson, A.,* D. Landers, D. Bourassa, and **B. I. Baker-Cook**. (2024). Development of the behavioral repertoire in the early life of broiler chicks. Poultry Science Association Annual Meeting. Louisville, KY, USA. July 15th-18th.
35. Quino, M.* , C. Hanlon, and **B. I. Baker-Cook**. (2024). Environmental enrichment preferences of broiler breeder during the rearing period. Poultry Science Association Annual Meeting. Louisville, KY, USA. July 15th-18th.
34. Youssef, T.* , A. Jackson *, K. Still**, M. Gilpin**, J. Linhoss, and **B. I. Baker-Cook**. (2024). Impact of natural and artificial light treatments on fear response and welfare parameters in commercial broilers. Poultry Science Association Annual Meeting. Louisville, KY, USA. July 15th-18th.
33. Backstrom, K., **B. I. Baker-Cook**, M. Quino*, M. Berger*, and C. Hanlon. (2024). Impact of high and low growth trajectories prior to photostimulation on reproductive parameters of broiler breeder pullets and cockerels. Poultry Science Association Annual Meeting. Kentucky, USA. July 15th-18th.
32. Olanrewaju, H., C. Magee, S. Collier, J. Linhoss, B. Baker-Cook, and J. Pursewell. (2024). Comparison effects of Natural and Artificial lighting on selected blood physiological variables of broilers grown to 56 days of age. American Physiology Summit, Long Beach, CA, USA. April 4th-7th.

31. Jackson, A.*, and B.I. Baker-Cook. (2024). The temporal development of behavior in broiler chicks throughout the seven days of life. Auburn Student Research Symposium. Auburn, USA. March 26th.
30. Rueda, M., C. Smith, J. Campbell, C. Edge, **B.I. Baker-Cook**, J. Davies, and J. Starkey. (2024). Determining feed spillage of broilers using two commercial feeders and two supplemental feeders during the starter phase. Auburn Student Research Symposium. Auburn, USA. March 26th.
29. Magee, C., S. Collier, J. Linhoss, S. Whitham, J. Pursewell, **B.I. Baker-Cook** and H. Olanrewaju. (2024) Comparison effects of natural and artificial lighting on growth performance and carcass characteristics of broilers grown to 56 days of age. International Poultry Scientific Forum. Atlanta, USA. January 29-30th.
28. Riggs, C. Hanlon, **B.I. Baker-Cook**, M. Jennings, A. McConnell, J. Figueroa, M. Hughes, and D. Bourassa (2024). Analysis of metabolic changes in poultry during respiration of carbon dioxide. International Poultry Scientific Forum. Atlanta, USA. January 29-30th.
27. Gautam, A*, A. Jackson, M. Gilpin**, K. Still**, and **B.I. Baker-Cook**. (2023) How different litter types affect the fear response in broiler chickens? COA Graduate Student Poster Showcase. Auburn, USA. October 26th.
26. Jackson, A*., B. McCrea, and **B.I. Baker-Cook**. (2023) Evaluating the impact of commercially available brooder type on body weight, behavior and fearfulness of broiler chicks. COA Graduate Student Poster Showcase. Auburn, USA. October 26th.
25. Tomori, A*., A. Jackson, M. Gilpin**, K. Still**, J. Linhoss and **B.I. Baker-Cook**. (2023) The Impact of Natural and Artificial Light on the Welfare of Broiler Chickens. (2023). COA Graduate Student Poster Showcase. Auburn, USA. October 26th.
24. Quino, M.*., A. Jackson, M. Gilpin**, K. Still**, and **B. Baker-Cook**. (2023) How do Multiple Test Exposures and Movement Affect Fear Response in Poultry. COA Graduate Student Poster Showcase. Auburn, USA. October 26th.
23. Jennings, M., **B.I. Baker-Cook**, J. Starkey, and D. Bourassa. (2023) Evaluation of the acceptability of euthanasia methods based on demographic predictors. COA Graduate Student Poster Showcase. Auburn, USA. October 26th.
22. Jackson, A.* and **B.I. Baker-Cook**. (2023) Defining the development of normal chick behavior over the first week of life. Poultry Science Association Annual Meeting. Philadelphia, USA. July 10-13th.
21. Escobar Lobo, C., D. Watts, H. Torbert, M. Bailey, J. Krehling, L. Munoz, L. Orellana, Y. Adhikari, **B.I. Baker-Cook**, and K. Macklin. (2023) Evaluation of Gypsum as a Bedding Material for Broiler Chickens. Poultry Science Association Annual Meeting. Philadelphia, USA. July 10-13th.
20. Jennings, M., **B.I. Baker-Cook**, J. Starkey, and D. Bourassa. (2023) Evaluation of the acceptability of euthanasia methods based on demographic predictors. Poultry Science Association Annual Meeting. Philadelphia, USA. July 10-13th.
19. Riggs, M., C. Hanlon, **B.I. Baker-Cook**, A. Jackson, M. Reina, J. Figueroa, M. Hughes, and D. Bourassa. (2023) Analysis of broiler blood metabolites and corticosterone prior to and following electrical and controlled atmosphere stunning. Poultry Science Association Annual Meeting. Philadelphia, USA. July 10-13th.
18. Rueda, M., J. Purswell, C. Edge, J. Campbell, J. Linhoss, **B.I. Baker-Cook**, J. Davies, and J. Starkey. (2023) Development and Validation of a Broiler Feeder Pan Spillage Protocol to

- Determine Feed Spillage of Broilers Using Commercial Feeders. American Society of Agricultural and Biological Engineers Annual Meeting. Nebraska, USA. July 9 -12th.
17. Jackson, A.,* C. Hanlon, D. Bourassa, and **B.I. Baker-Cook**. (2023) Assessing the impact of head removal following cervical dislocation on latency to insensibility and death. Prague, Czech Republic. June 26-29th.
 16. Jackson, A.,* D. Bourassa, C. Hanlon and **B.I. Baker-Cook**. (2023) Evaluating the effect of head removal during cervical dislocation on bird welfare. Auburn Research: Student Symposium. Auburn, USA. March 28th.
 15. Suazo, V.** , C. Gregg, B. Wall, C. Stefanello, J. Sandoval, J. Starkey and **B.I. Baker-Cook**. (2023) Investigating whether broiler chick sex impacts the stress response to different transportation distances. Auburn Research: Student Symposium. Auburn, USA. March 28th.
 14. Rueda, M., J. Purswell, J. Linhoss, C. Edge, J. Campbell, **B. Baker-Cook**, J. Starkey, and J. Davis. (2023) Development and validation of a broiler feeder pan spillage protocol to determine feed spillage of broilers using commercial feeders. Auburn Research: Student Symposium. Auburn, USA. March 28th.
 13. Jackson. A*, B. McCrea and **B.I. Baker-Cook** (2023). Assessing the effect of commercially available brooder type on body weight, fearfulness, and behavior of chicks. International Poultry Scientific Forum. Atlanta, USA. January 23-24th.
 12. Riggs, M., M. Reina, A. Urrutia, J. Figueroa, A. Jackson, M. Hughes, B. True, C. Hanlon, R. Hauck, **B.I. Baker-Cook**, and D. Bourassa (2023). Analysis of broiler chicken blood parameters during carbon dioxide gas stunning. International Poultry Scientific Forum. Atlanta, USA. January 23-24th.
 11. Riggs, M., R. Hauck, **B.I. Baker-Cook**, R. Osbourne, A. Pal, M. Bethonico Terra, G. Sims, A. Urrutia, L. Orellana Galindo, M. Reina, and D. Bourassa (2022). "Evaluation of stress hormone indicators in broiler chickens stunned by either electrical or controlled atmosphere stunning methods under commercial conditions" Poultry Science Association Annual Meeting. San Antonio, USA. July 12th-14th.
 10. Sims,G.(UG), M. Bethonico Terra, **B. I. Baker-Cook**, B. McCrea, R. Hauck. (2022). The Influence of Mirrors as Environmental Enrichment on Pullet Behavior. American Association of Avian Pathologists Annual Meeting. Philadelphia, USA. July 29-August 2nd.
 9. Jackson, A.** , A. Urrutia, L. Orellana Galindo, M. Reina, M. Riggs, D. Bourassa, and **B.I. Baker-Cook**. (2022). Evaluation of head removal following cervical dislocation for broiler euthanasia. International Poultry Scientific Forum. Atlanta, USA. January 24-25th.
 8. Riggs, M., R. Hauck, **B.I. Baker-Cook**, R. Osborne, A. Pal, M. Bethonico Terra, G. Sims, A. Urrutia, L. Orellana Galindo, M. Reina, and D. Bourassa. (2022) Meat quality of broiler chickens processed using electrical and controlled atmosphere stunning systems. International Poultry Scientific Forum. Atlanta, USA. January 24-25th.
 7. **Baker, B.I.**†, A. Mortiz, D. Zwueste, K. Schwean-Lardner, and K.L. Machin (2020). Intravenous T-61: an effective euthanasia method for poultry. Poultry Science Association Annual Meeting, Virtual. July 20-22nd.
 6. **Baker, B.I.**†, S. Torrey, P. Turner, T. Widowski, T. Knezacek, J. Nicholds, and K. Schwean-Lardner (2019). Investigating the effect of CO₂ concentration on the efficacy of gaseous euthanasia of broiler chicks on day of hatch. The Animal-Human Relationship: 3 Rs and Animal Research Symposium, Saskatoon, Canada. October 18-19th.
 5. **Baker, B.I.**†, S. Torrey, P. Turner, T. Widowski, T. Knezacek, J. Nicholds, and K. Schwean-Lardner (2019). Investigating the effect of CO₂ concentration on the efficacy of

- gaseous euthanasia of broiler chicks on day of hatch. Poultry Science Association Annual Meeting, Montreal, Canada. July 15-18th. [Awarded Certificate of Research Excellence]
4. **Baker, B.I.**†, S. Torrey, P. Turner, T. Widowski, T. Knezacek, J. Nicholds, and K. Schwean-Lardner (2019). Evaluating the impact of age on the efficacy of CO₂ euthanasia for broilers in early life. Poultry Science Association Annual Meeting, Montreal, Canada. July 15-18th.
 3. **Baker, B.I.**†, S. Torrey, P. Turner, T. Widowski, T. Knezacek, J. Fricke, S. Gomis, H. Classen, T. Crowe, and K. Schwean-Lardner (2018). Evaluating five carbon dioxide induction methods for the gaseous euthanasia of day-old broiler chicks testing time to aversion, insensibility and death. Poultry Science Association Annual Meeting, San Antonio, USA. July 23-25th.
 2. **Baker, B.I.**† S. Torrey, T. Widowski, P. Turner, S. Gomis, H. Classen, T. Knezacek, J. Fricke, T. Crowe, and K. Schwean-Lardner (2017). Assessing the welfare impact of on-farm euthanasia methods on broilers. Poultry Science Association Annual Meeting, Orlando, USA. July 16-19th.
 1. **Baker, B.I.**† S. Torrey, T. Widowski, P. Turner, S. Gomis, H. Classen, T. Knezacek, J. Fricke, T. Crowe, and K. Schwean-Lardner (2017). Assessing the effect of dehydration on onset of insensibility and death during on-farm euthanasia in broilers. Poultry Science Association Annual Meeting, Orlando, USA. July 16-19th.

Invited Presentations

12. Padjadjaran University, Indonesia. 2024. Animal Welfare at the End of Life. July 18th, 2024.
11. Alabama 4H Cooptastic: A Backyard Poultry Conference. 2024. Poultry Behavior 101. March 16th, 2023.
10. University of Georgia. Poultry Science Seminar. 2023. Good death: Assessing welfare during euthanasia. September 11th, 2023.
9. Alabama 4H Cooptastic: A Backyard Poultry Conference. 2023. Understanding Poultry Behavior. March 4th, 2023.
8. ACES Commercial Poultry Basics Workshop. 2023. Animal Welfare. February 15th, 2023.
7. Alabama 4H-Fur and Feathers. 2022. Animal Behavior. December 3rd, 2022.
6. Turkey Farmers of Saskatchewan Board and Producer Meeting. 2018. Poultry Euthanasia. Saskatoon, Canada. Dec 4th, 2018.
5. Prairie Poultry Meeting. 2018. Evaluating carbon dioxide induction methods for neonate gaseous euthanasia. Edmonton, Canada. May 7-8th, 2018.
4. Animal Pain. 2018. Pain associated with on-farm euthanasia for broilers. Copenhagen, Denmark. March 5-9th, 2019
3. Poultry Service Industry Workshop. 2016 Good death? Assessing the euthanasia of broiler chickens. Banff, Canada. October 4-6th, 2016.
2. Saskatchewan Poultry Industry Meeting. 2016. Poultry Euthanasia. Saskatoon, Canada. March, 2016.
1. Saskatchewan Egg Producers General Meeting. 2015. Poultry Euthanasia. Swift Current, Canada. October, 2015.

Honors and Awards

Recognitions of the Candidate

<i>Award of Research Excellence, Poultry Science Association, USA</i>	2019
<i>PSA Graduate Student Travel Award, Poultry Science Association, USA</i>	2019
<i>J.M. Bell Postgraduate Scholarship, University of Saskatchewan, Canada</i>	2017
<i>Poultry Service Industry Workshop Student Scholarship, PSIW, Canada</i>	2016
<i>Animal and Poultry Science Scholarship, University of Saskatchewan, Canada</i>	2015
<i>Erasmus Placement Grant, Erasmus Mobility Programme, European Union</i>	2014
<i>Head of College Scholar List Scheme Award, University of Glasgow, Scotland</i>	2013
<i>Dean's Group Scheme Award, University of Glasgow, Scotland</i>	2012

Recognitions of the Candidate's Student Advisees

<i>Poultry Science Association, Award of Research Excellence</i> Alexandra Jackson	2024
<i>Poultry Science Association, PSA Graduate Student Travel Award.</i> Alexandra Jackson	2024
<i>Auburn University, Outstanding Masters Student.</i> Alexandra Jackson	2024
<i>College of Agriculture, Outstanding Masters Student.</i> Alexandra Jackson	2024
<i>Auburn University Research Symposium Graduate Presentation Competition – 1st place</i> Alexandra Jackson	2023

Teaching

Auburn University

ANSC/POUL5070/6070: Animal Welfare	2023 – Present
POUL7970: Methodologies in Applied Ethology	2024 – Present
POUL7970: Directed Studies – Poultry Welfare Auditing	2023 – Present
POUL1000: Introduction to Poultry Science	2021 – Present

Gadsden State Community College

AGP 130: Introduction to Poultry Science	2022 – Present
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University of Saskatchewan

ANBI110: Introductory Animal Bioscience – First Year Research Experience	2017 – 2018
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Professional Activities

2024	Program Committee , Annual Meeting, Poultry Science Association
2023	Grant Reviewer , USDA-NIFA AFRI Welfare and Well-being of Agricultural Animals
2022-present	Research and Innovation Committee , International Poultry Welfare Alliance
2022-present	University Liaison , University Federation of Animal Welfare
2022-present	University Liaison , Humane Slaughter Association
2022-present	Student Hatchery Liaison , Poultry Science Association
2022-2024	Welfare Award Committee , Poultry Science Association
2022-present	Associate Editor , Journal of Applied Poultry Research

2021-2024 **Animal Welfare Committee**, Poultry Science Association
2021-present **Journal Reviewer**, Journal of Applied Poultry Research, Poultry Science,
World's Poultry Science
2015-present **Member**, Poultry Science Association
2015-present **Member**, World's Poultry Science Association