

# Samuel J. Rochell, Ph.D.

---

Associate Professor of Poultry Nutrition  
Department of Poultry Science | Auburn University

202F Poultry Science Building | 260 Lem Morrison Drive | Auburn University, AL 36849  
(256) 431-1566 | sam.rochell@auburn.edu

## Education

---

### University of Illinois at Urbana-Champaign

Doctor of Philosophy in Animal Sciences 2015

Dissertation: *Eimeria acervulina* infection and amino acid nutrition in broiler chickens

### Auburn University

Master of Science in Poultry Science 2012

Thesis: Effects of diet type and ingredient composition on rate of passage and use of in vitro assays to predict amino acid digestibility of animal protein meals in broilers

Bachelor of Science in Poultry Science 2009

Minor in Business; Magna cum laude

## Professional Experience

---

Associate Professor of Poultry Nutrition 2022-present

Appointment: 70% research, 30% teaching  
Auburn University

Assistant and Associate Professor of Poultry Nutrition 2016-2022

Appointment: 80% research, 20% teaching  
University of Arkansas

Graduate Research Assistant 2012-2015  
University of Illinois at Urbana-Champaign

Feed Milling and Nutrition Internship 2012  
Aviagen, Inc., Athens, AL

Graduate Research Assistant 2009-2012  
Auburn University

## Publications

---

**Summary:** As of November 2024, I have authored or co-authored almost 60 peer-reviewed journal articles, 1 book chapter, 7 proceedings papers, and >90 refereed conference abstracts. As calculated by [Google Scholar](#), I currently have an h-index of 20, i10-index of 29, and >1,122 total citations.

### Peer-reviewed journal articles

*Underlined first authors are graduate students or researchers directed by SJR*

59. Gous, R. M., H. Walters, **S. J. Rochell**, and G. C. Emmans. 2024. Evaluation of body calcium and phosphorus composition of the Cobb 700 genotype during growth. *Brit. Poult. Sci.* <https://doi.org/10.1080/00071668.2024.2394976>
58. Parsons, B. W., and **S. J. Rochell**. 2024. Determination of phytic acid disappearance, ileal P digestibility at different dietary Ca levels, and relative P bioavailability in soybean meal, canola meal, distillers dried grains with solubles, corn fermented protein, and wheat middlings. *Poult. Sci.* 103:1040307. <https://doi.org/10.1016/j.psj.2024.104037>
57. Lassiter, K. G. Mullenix, **S. J. Rochell**, G. Tellez, M. T. Kidd, S. Dridi, and W. Bottje. 2024. Effects of a low protein soybean meal diet with and without *Spirulina platensis* freshwater microalgae on antioxidant systems in broiler liver and muscle tissue. *Med. Res. Arch.* 12:10. <https://doi.org/10.18103/mra.v12i10.5697>
56. Myers, A. G., and **S. J. Rochell**. 2024. Effects of starter diet energy concentration on nutrient digestibility and subsequent growth performance and meat yields of broilers under two coccidiosis control programs. *Animals* 14:1524. <https://doi.org/10.3390/ani14111524>
55. Asnayanti, A. Hasan, A. Alharbi, I. Hassan, W. Bottje, **S. J. Rochell**, M. A. Rebollo, M. T. Kidd, and A. Alrubaye. 2024. Assessing the impact of *Spirulina platensis* and organic trace minerals on the incidence of bacterial chondronecrosis with osteomyelitis lameness in broilers using an aerosol transmission model. *J. App. Poult. Sci.* 33:100426. <https://doi.org/10.1016/j.japr.2024.100426>
54. Alharbi, K. N, Ekesi, A. Hasan, A. Asnayanti, J. Liu, R. Murugesan, S. Ramirez, **S. J. Rochell**, M. T. Kidd, and A. Alrubaye. 2024. Deoxynivalenol and fumonisin predispose broilers to bacterial chondronecrosis with osteomyelitis lameness. *Poult. Sci.* 103:103598. <https://doi.org/10.1016/j.psj.2024.103598>
53. Gous, R. M., H. Walters, **S. J. Rochell**, and G. C. Emmans. 2024. Evaluation of the potential growth and body composition of the Cobb 700 genotype. *Brit. Poult. Sci.* 65:265. <https://doi.org/10.1080/00071668.2024.2328680>
52. Parsons, B. W., and **S. J. Rochell**. 2024. Research note: Evaluation of phytic acid disappearance, ileal P digestibility, and total tract P retention in canola meal supplemented with increasing levels of exogenous phytase using conventional and cecectomized precision-fed roosters and growing chicks. *Poult. Sci.* 103:103520. <https://doi.org/10.1016/j.psj.2024.103520>
51. Teyssier, J. R., P. Cozannet, E. Greene, S. Dridi, and **S. J. Rochell**. 2023. Influence of different heat stress models on nutrient digestibility and markers of stress, inflammation, lipid, and protein metabolism in broilers. *Poult. Sci.* 102:103048. <https://doi.org/10.1016/j.psj.2023.103048>

50. Beal, C. M., D. M. Robinson, J. Smith, L. G. Van Doren, G. T. Tabler, **S. J. Rochell**, M. T. Kidd, W. B. Bottje, and X. Lei. 2023. Economic and environmental assessment of U.S. broiler production: opportunities to improve sustainability. *Poult. Sci.* 102:102887. <https://doi.org/10.1016/j.psj.2023.102887>
49. Mueller, A. J., C. J. Maynard, A. R. Jackson, A. Mauromoustakos, M. T. Kidd, **S. J. Rochell**, J. P. Caldas-Cueva, X. Sun, A. Giampietro-Ganeco, and C. M. Owens. 2023. Assessment of meat quality attributes of four commercial broiler strains processed at various market weights. *Poult. Sci.* 102:102571. <https://doi.org/10.1016/j.psj.2023.102571>
48. Maynard, C. J., A. R. Jackson, J. P. Caldas-Cueva, A. Mauromoustakos, M. T. Kidd, **S. J. Rochell**, and C. M. Owens. 2023. Meat quality attributes of male and female broilers from 4 commercial strains processed for 2 market programs. *Poult. Sci.* 102:102570. <https://doi.org/10.1016/j.psj.2023.102570>
47. Parsons, B. W., R. L. Drysdale, J. E. Cvengros, P. L. Utterback, **S. J. Rochell**, C. M. Parsons, and J. L. Emmert. 2023. Quantification of secretory IgA and mucin excretion and their contributions to total endogenous amino acid losses in roosters that were fasted or precision-fed a nitrogen-free diet or various highly digestible protein sources. *Poult. Sci.* 102:102554. <https://doi.org/10.1016/j.psj.2023.102554>
46. Adhikari, B., A. G. Myers, C. Ruan, Y. M. Kwon, and **S. J. Rochell**. 2023. Individual and combined effects of a direct-fed microbial and calcium butyrate on growth performance, intestinal histology and gut microbiota of broiler chickens. *Poultry* 2: 63-81. <https://doi.org/10.3390/poultry2010008>
45. Teague, K. D., G. Tellez-Isaias, V. Petrone-Garcia, C.N. Vuong, A. Blanch, S. H. Rasmussen, K. Brown, and **S. J. Rochell**. 2023. Dietary soy galactooligosaccharides affect the performance, intestinal function, and gut microbiota composition of growing chicks. *Poult. Sci.* 102:102440. <https://doi.org/10.1016/j.psj.2022.102440>
44. Maynard, C. J., C. W. Maynard, A. R. Jackson, M. T. Kidd, **S. J. Rochell**, and C. M. Owens. 2023. Characterization of growth patterns and carcass characteristics of male and female broilers from four commercial strains fed low or high density diets. *Poult. Sci.* 102:102435. <https://doi.org/10.1016/j.psj.2022.102435>
43. Maynard, C. J., D. S. Nelson, **S. J. Rochell**, and C. M. Owens. 2023. Reducing broiler breast myopathies through supplementation of guanidinoacetic acid in broiler diets. *J. Appl. Poult. Res.* 32:100324. <https://doi.org/10.1016/j.japr.2022.100324>
42. Parsons, B. W., P. L. Utterback, J. L. Emmert, **S. J. Rochell**, and C. M. Parsons. 2022. Research note: evaluation of a precision-fed rooster assay for determination of phytic acid disappearance in feedstuffs. *Poult. Sci.* 102:102356. <https://doi.org/10.1016/j.psj.2022.102356>
41. Lee, J. T., **S. J. Rochell**, R. Kriseldi, W. K. Kim, and R. D. Mitchell. 2022. Functional properties of amino acids improve health status and sustainability. *Poult. Sci.* 102:102288. <https://doi.org/10.1016/j.psj.2022.102288>

40. Teyssier, J. R., G. Brugaletta, F. Sirri, S. Dridi, **S. J. Rochell**. 2022. A review of heat stress in chickens. Part II: Insights into protein and energy utilization and feeding. *Front. Physiol.* 13:943612. <https://doi.org/10.3389/fphys.2022.943612>
39. Brugaletta, G., J. R. Teyssier, S. Dridi, **S. J. Rochell**, and F. Sirri. 2022. A review of heat stress in chickens. Part I: Insights into physiology and gut health. *Front. Physiol.* 13:934381. <https://doi.org/10.3389/fphys.2022.934381>
38. Lee, D. T., J. T. Lee, C. Ruan, and **S. J. Rochell**. 2022. Influencing of increasing glycine concentrations in reduced crude protein diets fed to broilers from 0 to 48 days. *Poult. Sci.* 101:102038. <https://doi.org/10.1016/j.psj.2022.102038>
37. Teyssier, J. R., A. Preynat, P. Cozannet, M. Briens, A. Mauromoustakos, E. S. Greene, C. M. Owens, S. Dridi, and **S. J. Rochell**. 2022. Constant and cyclic chronic heat stress models differentially influence growth performance, carcass traits and meat quality of broilers. *Poult. Sci.* 31:101963. <https://doi.org/10.1016/j.psj.2022.101963>
36. Lee, D. T., J. T. Lee, and **S. J. Rochell**. 2022. Evaluation of a threonine fermentation product as a digestible threonine source in broilers. *J. Appl. Poult. Res.* 31:100252. <https://doi.org/10.1016/j.japr.2022.100252>
35. Whitfield, H., C. Laarendon, **S. J. Rochell**, S. Dridi, S. A. Lee, T. Dale, T. York, I. Kuehn, M. R. Bedford, and C. A. Brearley. 2022. Effect of phytase supplementation on plasma and organ myo-inositol content and erythrocyte inositol phosphates as pertaining to breast meat quality issues in chickens. *J. Appl. Anim. Nutr.* 10:45-47 <https://doi.org/10.3920/JAAN2021.0014>
34. Lee, D. T. and **S. J. Rochell**. 2022. Precision intestinal nutrition: knowledge and gaps regarding the role of amino acids during an enteric challenge. *Poult. Sci.* 101:101674. <https://doi.org/10.1016/j.psj.2021.101674>
33. Ayres, V., M. E. Jackson, S. Cantley, **S. J. Rochell**, C. D. Crumpacker, D. T. Lee, B. C. Bodle, W. J. Pacheco, M. Rueda, C. A. Bailey, K. Gardner, T. P. Boltz, and J. S. Moritz. 2021. Multi-experiment evaluation of increasing phytase activity from Optiphos and Optiphos Plus on 21-d broiler performance and tibia mineralization. *J. Appl. Poult. Res.* 30:100210. <https://doi.org/10.1016/j.japr.2021.100210>
32. Mullenix, G. J., C. J. Maynard, C. M. Owens, **S. J. Rochell**, W. G. Bottje, R. D. Brister, and M. T. Kidd. 2021. *Spirulina platensis* meal inclusion effects on broilers fed a reduced protein diet. *J. Appl. Poult. Res.* 31:100199. <https://doi.org/10.1016/j.japr.2021.100199>
31. Maynard, C. W., S. Y. Liu, J. T. Lee, J. V. Caldas, E. J. J. Diehl, **S. J. Rochell**, S. Dridi, and M. T. Kidd. 2021. Determination of digestible valine requirements in male and female Cobb 500 broilers. *Anim. Feed Sci. Technol.* 275:114847. <https://doi.org/10.1016/j.anifeedsci.2021.114847>

30. Deines, J. R., D. E. Yoho, F. Dustan Clark, R. K. Bramwell, and **S. J. Rochell**. 2021. Effects of hatch window and nutrient access in the hatcher on performance and processing yield of broiler chicks reared according to time of hatch. *Poult. Sci.* 100:101295. <https://doi.org/10.1016/j.psj.2021.101295>
29. Deines, J. R., F. D. Clark, D. E. Yoho, R. K. Bramwell, and **S. J. Rochell**. 2021. Effects of hatch window and nutrient access in the hatcher on performance and processing yields of broiler reared with equal hatch window representation. *Animals.* 11:1-11. <https://doi.org/10.3390/ani11051228>
28. Herrero-Encinas, J., D. Menoyo, M. Blanch, J. J. Pastor, and **S. J. Rochell**. 2020. Response of broiler chickens fed diets supplemented with a bioactive olive pomace extract from *Olea europaea* to an experimental coccidial vaccine challenge. *Poult. Sci.* 100:575-584. <https://doi.org/10.1016/j.psj.2020.11.027>
27. French, C. E., M. A. Sales, **S. J. Rochell**, A. Rodriguez, G. F. Erf. 2020. Local and systemic inflammatory responses to lipopolysaccharide in broilers: new insights using a two-window approach. *Poult. Sci.* 99:6593-6605. <https://doi.org/10.1016/j.psj.2020.09.078>
26. Maynard, C. W., S. Y. Liu, J. T. Lee, J. V. Caldas, J. J. E. Diehl, **S. J. Rochell**, and M. T. Kidd. 2020. Evaluation of branched-chain amino acids in male Cobb MV× 500 broiler chickens by using Box-Behnken response surface design. *Anim. Feed Sci. Technol.* 271:114710. <https://doi.org/10.1016/j.anifeedsci.2020.114710>
25. Maynard, C. W., S. Y. Liu, J. T. Lee, J. Caldas, E. J. J. Diehl, **S. J. Rochell**, and M. T. Kidd. 2020. Determining the 4th limiting amino acid in low crude protein diets for male and female Cobb MV× 500 broilers. *British Poult. Sci.* 61:695-702. <https://doi.org/10.1080/00071668.2020.1782348>
24. Butler, L. D., C. G. Scanes, **S. J. Rochell**, A. Mauromoustakos, J. V. Caldas, C. A. Keen, C. O. Hanning, and M. T. Kidd. 2020. Effect of pullet body weight and hen dietary amino acid treatments on their progeny fed high and low amino acid diets. *Poult. Sci.* 100:159-173. <https://doi.org/10.1016/j.psj.2020.08.035>
23. Lee, D. T., J. T. Lee, and **S. J. Rochell**. 2020. Influence of branched chain amino acid inclusion in diets varying in ingredient composition on broiler performance, processing yields, and pododermatitis and litter characteristics. *J. Appl. Poult. Res.* 29:712-729. <https://doi.org/10.1016/j.japr.2020.05.005>
22. Butler, L. D., C. G. Scanes, **S. J. Rochell**, A. Mauromoustakos, J. V. Caldas, C. A. Keen, C. W. Maynard, S. A. Bolden, R. D. Brister, P. A. Smith, R. E. Latham, C. M. Owens, and M. T. Kidd. 2020. Cobb 700 responses to increasing lysine by growth phase. *J. Appl. Poult. Res.* 29:479-488 <https://doi.org/10.1016/j.japr.2020.02.005>
21. Beer, L. C., J. D. Latorre, **S. J. Rochell**, X. Sun, G. Tellez, A. L. Fuller, B. M. Hargis, C. N. Vuong. 2020. Research Note: Evaluation of deoxycholic acid for antihistomonal activity. *Poult. Sci.* 99:3841-3486 <https://doi.org/10.1016/j.psj.2020.03.049>

20. Butler, L. D., C. G. Scanes, **S. J. Rochell**, A. Mauromoustakos, J. V. Caldas, C. A. Keen, C. M. Owens, and M. T. Kidd. 2020. Cobb MV × Cobb 700 broiler responses to eight varying levels of amino acid density with emphasis on digestible lysine. *J. Appl. Poult. Res.* 29:34-47 <https://doi.org/10.1016/j.japr.2019.12.002>
19. Gautier, A. E. and **S. J. Rochell**. 2020. Influence of coccidiosis vaccination on nutrient utilization of corn, soybean meal, and distillers dried grains with solubles in broilers. *Poult. Sci.* 99:3,540-3,549. <https://doi.org/10.1016/j.psj.2020.03.035>
18. Gautier, A. E., J. D. Latorre, P. L. Matsler, and **S. J. Rochell**. 2020. Longitudinal characterization of coccidiosis control methods on live performance and nutrient utilization in broilers. *Front. Vet. Sci.* 6:468. <https://doi.org/10.3389/fvets.2019.00468>
17. Liu, S. Y., **S. J. Rochell**, C. W. Maynard, J. Caldas, and M. T. Kidd. 2019. Digestible lysine concentrations and amino acid densities influence growth performance and carcass traits in broiler chickens from 14 to 35 days post-hatch. *Anim. Feed Sci. Technol.* 255:114216. <https://doi.org/10.1016/j.anifeedsci.2019.114216>
16. Cloft, S. E., **S. J. Rochell**, K. S. Macklin, and W. A. Dozier. 2019b. Effects of dietary amino acid density and feed allocation during the starter period on 41 days of age growth performance and processing characteristics of broiler chickens given coccidiosis vaccination at hatch. *Poult. Sci.* 98:5005–5016. <https://doi.org/10.3382/ps/pez295>
15. Cloft, S. E., **S. J. Rochell**, K. S. Macklin, and W. A. Dozier. 2019a. Effects of pre-starter and starter diets varying in amino acid density given to broiler chickens that received coccidiosis vaccination at hatch. *Poult. Sci.* 98:4878–4888. <https://doi.org/10.3382/ps/pez236>
14. Greene, E., J. Flees, S. Dadgar, B. Mallmann, S. Orlowski, A. Dhamad, **S. J. Rochell**, M. T. Kidd, C. Laundon, H. Whitfield, C. Brearley, N. Rajaram, C. Walk, and S. Dridi. 2019. Quantum blue reduces the severity of woody breast myopathy via modulation of oxygen homeostasis-related genes in broiler chickens. *Front. Physiol.* 10:1251. <https://doi.org/10.3389/fphys.2019.01251>
13. Maynard, C. W., R. E. Latham, R. Brister, C. M. Owens, and **S. J. Rochell**. 2020. Effects of dietary amino acid regimens on live performance and processing characteristics of Cobb MV × 700 male and female broilers. *J. Appl. Poult. Res.* 29:64-76. <https://doi.org/10.3382/japr/pfz028>
12. Maynard, C. W., R. E. Latham, R. Brister, C. M. Owens, and **S. J. Rochell**. 2019. Effects of dietary energy and amino acid density during finisher and withdrawal phases on live performance and carcass characteristics of Cobb MV × 700 broilers. *J. Appl. Poult. Res.* 28:729–742. <https://doi.org/10.3382/japr/pfz025>
11. **Rochell, S. J.** 2018. Formulation of broiler chicken diets using distillers dried grains with solubles. *Fermentation.* 4(3):64. <https://doi.org/10.3390/fermentation4030064>
10. Bortoluzzi, C., **S. J. Rochell**, and T. J. Applegate. 2018. Threonine, arginine, and glutamine: influences on intestinal physiology, immunology, and microbiology in broilers. *Poult. Sci.* 97:937-945. <https://doi.org/10.3382/ps/pex394>

9. **Rochell, S. J., A.** Helmbrecht, C. M. Parsons, and R. N. Dilger. 2017. Interactive effects of dietary arginine and *Eimeria acervulina* infection on broiler growth performance and metabolism. *Poult. Sci.* 96:659-666. <https://doi.org/10.3382/ps/pew295>
8. **Rochell, S. J.,** J. L. Usry, T. M. Parr, C. M. Parsons, and R. N. Dilger. 2017. Effects of dietary copper and amino acid density on growth performance, apparent metabolizable energy and nutrient digestibility in *Eimeria acervulina*-challenged broilers. *Poult. Sci.* 96:602-610. <https://doi.org/10.3382/ps/pew276>
7. **Rochell, S. J.,** A. Helmbrecht, C. M. Parsons, and R. N. Dilger. 2016. Influence of dietary amino acid reductions and *Eimeria acervulina* infection on growth performance and intestinal cytokine responses of broilers fed low crude protein diets. *Poult. Sci.* 95:2602-2614. <https://doi.org/10.3382/ps/pew153>  
**- Selected as Editor's Choice**
6. **Rochell, S. J.,** C. M. Parsons, and R. N. Dilger. 2016. Effects of *Eimeria acervulina* infection severity on growth performance, apparent ileal amino acid digestibility, and plasma concentrations of amino acids, carotenoids, and  $\alpha$ 1-acid glycoprotein in broilers. *Poult. Sci.* 95:1573-1581. <https://doi.org/10.3382/ps/pew035>
5. **Rochell, S. J.,** L. S. Alexander, G. C. Rocha, W. G. Van Alstine, R. D. Boyd, J. E. Pettigrew, and R. N. Dilger. 2015. Effects of dietary soybean meal concentration on growth and immune responses of pigs infected with porcine reproductive and respiratory syndrome virus. *J. Anim. Sci.* 93(6):2987-2997. <https://doi.org/10.2527/jas.2014-8462>
4. dePersio, S., P. L. Utterback, C. W. Utterback, **S. J. Rochell,** N. O'Sullivan, K. Bregendahl, J. Arango, C. M. Parsons, and K. W. Koelkebeck. 2015. Effects of feeding diets varying in energy and nutrient density to Hy-Line W-36 laying hens on production performance and economics. *Poult. Sci.* 94:195-206. <https://doi.org/10.3382/ps/peu044>  
**- Selected as Editor's Choice**
3. **Rochell, S. J.,** D. L. Kuhlert, and W. A. Dozier. 2013. Relationship between in vitro assays and standardized ileal amino acid digestibility of animal protein meals in broilers. *Poult. Sci.* 92:158-170. <https://doi.org/10.3382/ps.2012-02365>
2. **Rochell, S. J.,** T. J. Applegate, E. J. Kim, and W. A. Dozier. 2012. Effects of diet type and ingredient composition on rate of passage and apparent ileal amino acid digestibility in broiler chicks. *Poult. Sci.* 91:1647-1653. <https://doi.org/10.3382/ps.2012-02173>
1. **Rochell, S. J.,** B. J. Kerr, and W. A. Dozier. 2011. Energy determination of corn co-products fed to broiler chicks from 15 to 24 days of age and use of composition analysis to predict AME<sub>n</sub>. *Poult. Sci.* 90:1999-2007. <https://doi.org/10.3382/ps.2011-01468>

### **Book Chapters**

1. Teague, K. D., L. E. Graham, X. Hernandez-Velasco, G. Tellez-Isaias, B. M. Hargis, and **S. J. Rochell**. 2023. Soybean meal carbohydrates wasted and the microbial role for improved digestibility. Chapter 12. Pages 273-292 in *Microbial Bioprocessing of Agri-food Wastes*. G. Molina, M. Sharma, R. Benhida, V. K. Gupta, and R. C. Kuhad, ed. CRC Press, Boca Raton, FL.

### **Proceedings and Non-Refereed Publications**

8. Anderson, A. and **S. J. Rochell**. 2023. Dietary arginine responses of Ross 708 broilers reared under cyclic elevated temperatures. *CJ Bio Bulletin*, 4th Quarter, Volume 52.
7. Hampton, J., W. Li, F. Mussini, K. Hilton, J. Remus, and **S. J. Rochell**. 2022. Recent findings on phosphorus digestibility of feed ingredients in broilers. *Proc. of Arkansas Nutr. Conf.*, Rogers, AR
6. **Rochell, S. J.** 2020. Evaluating dietary nutrient and energy utilization in broilers facing enteric stress. *Proc. of Arkansas Nutr. Conf.*, Virtual.
5. Gautier, A. E. and **S. J. Rochell**. 2019. How do coccidiosis challenges influence lipid digestibility and energy utilization? *Proc. of Midwest Poultry Federation Conv. Pre-Show Nutr. Symp.*, Minneapolis, MN.
4. Kidd, M. T., **S. J. Rochell**, S. Dridi, J. Bai, R. D. Brister, J. Caldas, and E. Diehl, 2017. Branched-chain amino acids: re-evaluating ideal amino acid ratios. Pages 293-303. *Poultry Beyond 2023*. Queenstown, New Zealand.
3. **Rochell, S. J.** 2017. The impact of enteric challenges on nutrient digestion and absorption. *Proc. of Multi-State Poultry Meeting*, Indianapolis, IN.
2. **Rochell, S. J.**, and R. N. Dilger 2016. Nutritional modulation of the immune response. *Arkansas Nutr. Conf.*, Rogers, AR.
1. **Rochell, S. J.**, J. E. Pettigrew, and R. N. Dilger. 2014. Soybean meal and the immune response to PRRS virus. *Proc. of Midwest Swine Nutr. Conf.*, Indianapolis, IN.

### **Refereed conference abstracts**

*Underlined first or presenting authors are graduate students or researchers directed by SJR*

96. Lin, Y., R. W. Tabish, R. Hauck, W. J. Pachecho, M. A. Bailey, W. A. Dozier, K. W. McCafferty, and **S. J. Rochell**. 2024. Impact of fiber source and concentration on growth performance and gastrointestinal pH of necrotic enteritis challenged broiler chickens. *Poult. Sci.* 103(E-Suppl. 1):91 (Abstr.)
95. Anderson, A., C. N. Beck, J. M. Santamaria, J. T. Lee, R. Adhikari, **S. J. Rochell**, and G. Erf. 2024. Influence of dietary arginine level on local and systemic leukocyte populations and inflammatory cytokine expression in response to intradermal injection of lipopolysaccharide in broilers. *Poult. Sci.* 103(E-Suppl. 1):85 (Abstr.)



94. Anderson, A., G. Erf, and **S. J. Rochell**. 2024. Practical applications of arginine functionality to support broiler health and performance. *Poult. Sci.* 103(E-Suppl. 1):63 (Abstr.)
93. Parsons, B., and **S. J. Rochell**. 2024. Additivity of P digestibility values previously determined using 4 dietary Ca levels for plant-based feedstuffs in broiler grower diets. *Poult. Sci.* 103(E-Suppl. 1):55 (Abstr.)
92. Parsons, B., and **S. J. Rochell**. 2024. Determination of secretory IgA production and its contribution to total endogenous amino acid losses in broiler chickens fed a nitrogen-free diet or diets containing casein and purified amino acids. *Poult. Sci.* 103(E-Suppl. 1):49 (Abstr.)
91. Beckman, N., H. Walters, B. J. Bench, S. Cho, A. Morey, J. Valenta, and **S. J. Rochell**. 2024. Influence of dietary inclusion of black soldier fly larvae frass on broiler performance and meat yield, quality, and sensory characteristics. *Poult. Sci.* 103(E-Suppl. 1):43 (Abstr.)
90. Anderson, A., C. Willimas, J. T. Lee, R. Adhikari, and **S. J. Rochell**. 2024. Influence of the timing and amount of amino acid intake from 0 to 25 d post-hatch on the final performance and yield of Ross 708 broilers. *Poult. Sci.* 103(E-Suppl. 1):41 (Abstr.)
89. Perera, R., A. Asnayanti, A. Hasan, K. Alharbi, I. Hassan, W. Vaught, W. J. Bottje, **S. J. Rochell**, M. Rebollo, M. T. Kidd, and A. Alrubaye. 2024. Dietary treatments of microalgae and organic trace minerals to reduce the incidence of bacterial chondronecrosis with osteomyelitis in broilers. *Poult. Sci.* 103(E-Suppl. 1):108 (Abstr.)
88. Anderson, A., J. T. Lee, R. Adhikari, and **S. J. Rochell**. 2024. Dietary arginine responses of Cobb 500 broilers reared under cyclic elevated temperatures. *Poult. Sci.* 103(E-Suppl. 1):98 (Abstr.)
87. Forga, A. J. Higueta, S. Tawde, A. Tacconi, J. Broomhead, **S. J. Rochell**, and Danielle Graham. 2024. Effect of dietary blends of short chain fatty acids and phytochemicals on performance and oocyst shedding in broiler chickens subjected to repeat challenge with a live coccidiosis vaccine. *Poult. Sci.* 103(E-Suppl. 1):57 (Abstr.)
86. Anderson, A., J. T. Lee, R. Adhikari, and **S. J. Rochell**. 2024. Dietary arginine responses of Ross 708 broilers reared under cyclic elevated temperatures. *Poult. Sci.* 103(E-Suppl. 1):23 (Abstr.)
85. Tabish, R. W., J. P. Gulizia, J. I. Vargas, J. R. Hernandez, C. T. Simoes, E. G. Guzman, W. J. Pacheco, **S. J. Rochell**, M. A. Bailey, W. A. Dozier, III, K. W. McCafferty, and R. Hauck. 2024. Influence of different calcium levels and limestone particle sizes on the intestinal microbiome in broilers upon subclinical necrotic enteritis challenge. *Poult. Sci.* 103(E-Suppl. 1):20 (Abstr.)

84. Gulizia, J. P., R. W. Tabish, J. I. Vargas, J. R. Hernandez, C. T. Simoes, E. G. Guzman, **S. J. Rochell**, R. Hauck, M. A. Bailey, W. A. Dozier, III, K. W. McCafferty, and W. J. Pacheco. 2024. Performance and tibia mineralization response of YPM x Ross 708 male broilers subjected to a necrotic enteritis challenge and fed diets containing varying limestone particle sizes and calcium concentrations from 1 to 35 days of age. *Poult. Sci.* 103(E-Suppl. 1):20 (Abstr.)
83. Philpot. S. C., R. Hauck, A. Aderibigbe, K. Macklin, W. J. Pacheco, **S. J. Rochell**, and W. A. Dozier. 2023. Response of broiler chickens vaccinated against coccidiosis to diets containing varying amino acid density and a nucleotide-rich extract during the pre-starter and starter periods. *Poult. Sci.* 102(E-Suppl. 1):215 (Abstr.)
82. Do, A., A. Asnayanti<sup>1</sup>, K. Alharbi, R. Perera, L. Al-Mitib, A. Lawal, W. Vaught, A. Ault, A. Fanous, H. McCarver, **S. J. Rochell**, S. P. Corray, and A. A. Alrubaye. 2023. Evaluation of protease plus a precision-biotic on body weight gain and feed conversion ratio in broilers from 0 to 42 days of age. *Poult. Sci.* 102(E-Suppl. 1):211 (Abstr.)
81. Parsons, B., and **S. J. Rochell**. 2023. Evaluation of ileal P digestibility, total tract P retention, and phytic acid disappearance in canola meal supplemented with increasing levels of exogenous phytase using precision-fed roosters and growing chicks. *Poult. Sci.* 102(E-Suppl. 1):169 (Abstr.)
80. Maynard, C. J., D. S. Nelson, **S. J. Rochell**, and C. M. Owens. 2023. Potential use of guanidinoacetic acid to spare dietary energy and influence muscle myopathies in Ross 708 male broilers. *Poult. Sci.* 102(E-Suppl. 1):131 (Abstr.)
79. Parsons, B., and **S. J. Rochell**. 2023. Determination of phytic acid disappearance, ileal P digestibility at different dietary Ca levels, and relative P bioavailability in soybean meal, canola meal, distillers dried grains with solubles, corn fermented protein, and wheat middlings. *Poult. Sci.* 102(E-Suppl. 1):7 (Abstr.)
78. Teyssier, J. R., P. Cozannet, S. Dridi, and **S. J. Rochell**. 2023. Effects of dietary amino acid density on energy and nitrogen partitioning in broilers reared under thermoneutral, heat stress, and pair-feeding conditions. *Poult. Sci.* 102(E-Suppl. 1):6 (Abstr.)
77. Anderson, A., C. N. Beck, J. M. Santamaria, J. T. Lee, R. Adhikari, **S. J. Rochell**, and G. F. Erf. 2023. Influence of dietary arginine level on local and systemic inflammatory responses to lipopolysaccharide in broilers. *Poult. Sci.* 102(E-Suppl. 1):5 (Abstr.)  
- *A. Anderson awarded Certificate of Excellence for oral presentation*
76. Teague, K. D., G. Tellez-Isaias, J. Chai, S. H. Rasmussen, A. Blanch, and **S. J. Rochell**. 2023. Dose dependent responses of young broilers to soy  $\beta$ -conglycinin in mash and pelleted diets. *Poult. Sci.* 102(E-Suppl. 1):48 (Abstr.)
75. Lee, D. T., K. Lassiter, W. Bottje, and **S. J. Rochell**. 2023. The influence of dietary glycine concentration in reduced crude protein diets with different Met to Cys ratios fed to broilers. *Poult. Sci.* 102(E-Suppl. 1):30 (Abstr.)

74. Hampton, J., W. Li, F. Mussini, K. Hilton, J. Remus, and **S. J. Rochell**. 2023. Determination of ileal digestible phosphorous from several inorganic phosphate sources and two meat and bone meals in 3 week old broilers. *Poult. Sci.* 102(E-Suppl. 1):26 (Abstr.)  
- **J. Hampton awarded Certificate of Excellence for oral presentation**
73. **Rochell, S. J.**. 2022. Understanding amino functionality to advance precision nutrition and sustainability goals in poultry production. *Poult. Sci.* 101(E-Suppl. 2):259 (Abstr.)
72. Parsons, B. W., P. L. Utterback, J. L. Emmert, **S. J. Rochell**, and C. M. Parsons, and. 2022. A novel precision-fed rooster assay for determination of phytic acid disappearance in feedstuffs. *Poult. Sci.* 101(E-Suppl. 2):207 (Abstr.)
71. Parsons, B. W., R. L. Drysdale, J. E. Cvengros, P. L. Utterback, **S. J. Rochell**, C. M. Parsons, and J. L. Emmert. 2022. Quantification of secretory IgA and crude mucin excretion and their contributions to endogenous amino acid losses in birds fasted, fed a nitrogen-free diet, or fed diets containing various highly digestible protein sources in precision-fed roosters. *Poult. Sci.* 101(E-Suppl. 2):145 (Abstr.)
70. Brown, K., K. D. Teague, G. Tellez-Isaias, J. Chai, S. H. Rasmussen, A. Blanch, **S. J. Rochell**, and J. Zhao. 2022. Effect of dietary soy galactooligosaccharides on AMEn, nitrogen retention, and cecal microbiome of broiler chicks. *Poult. Sci.* 101(E-Suppl. 2):135 (Abstr.)
69. Teyssier, J. R., A. Preynat, P. Cozannet, M. Briens, E. Greene, S. Dridi, and **S. J. Rochell**. 2022. Effects of different amino acid density diets on performance and carcass characteristics in broilers reared under thermoneutral, heat stress, and pair-feeding conditions. *Poult. Sci.* 101(E-Suppl. 2):75 (Abstr.)
68. Maynard, C., D. Nelson, **S. J. Rochell**, and C. M. Owens. 2022. Performance and processing characteristics of male Ross 708 broilers supplemented with guanidinoacetic acid. *Poult. Sci.* 101(E-Suppl. 2):23 (Abstr.)
67. McGovern, K., A. Duff, M. Trombetta, R. Whelan, N. Yacoubi, K. D. Teague, **S. J. Rochell**, and L. Bielke. 2022. Effect of poor-quality soybean meal on broiler performance. *Poult. Sci.* 101(E-Suppl. 1):105 (Abstr.)
66. Lee, D. T., J. T. Lee, R. Adhikari, C. M. Owens, and **S. J. Rochell**. 2022. Impact of the timing and duration of increased dietary arginine on growth performance and processing characteristics of coccidiosis vaccinated broilers. *Poult. Sci.* 101(E-Suppl. 1):93 (Abstr.)
65. Teyssier, J. R., A. Preynat, P. Cozannet, M. Briens, E. Greene, **S. J. Rochell**, and S. Dridi. 2022. Influence of chronic and acute heat stress exposure on whole blood gene expression of stress and inflammatory markers in broilers. *Poult. Sci.* 101(E-Suppl. 1):90 (Abstr.)
64. Lee, D. T., J. T. Lee, C. Ruan, **S. J. Rochell**. 2022. Responses of broilers to increasing dietary glycine when fed reduced or low crude protein diets from 0 to 48 days. *Poult. Sci.* 101(E-Suppl. 1):33 (Abstr.)

63. Parsons, B., K. D. Teague, K. Mitre, K. Herrick, M. Jolly Breithaupt, and **S. J. Rochell**. 2022. Validation of a previously determined nitrogen-corrected metabolizable energy value for distillers dried grains with solubles on more recently collected samples from 4 different biorefineries. *Poult. Sci.* 101(E-Suppl. 1):23 (Abstr.)  
**- B. Parsons awarded Certificate of Excellence for oral presentation**
62. Teague, K. D., G. Tellez-Isaias, V. Petrone-Garcia, C.N. Vuong, A. Blanch, S. H. Rasmussen, K. Brown, and **S. J. Rochell**. 2021. Dietary soy oligosaccharides affect the gastrointestinal health and feed efficiency of growing chicks. *Symp. on Gut Health in Food Prod. Anim.* 128
61. Maynard, C. J., C. W. Maynard, A. Jackson, M. T. Kidd, **S. J. Rochell**, and C. M. Owens. 2021. Characterization of growth patterns and carcass characteristics of male and female broilers from four commercial strains fed low or high density diets. *Poult. Sci.* 100(E-Suppl. 1):357 (Abstr.).
60. Mueller, A. J., C. J. Maynard, A. Jackson, J. Caldas-Cueva, A. Giampietro-Ganeco, X. Sun, M. T. Kidd, **S. J. Rochell**, and C. M. Owens. 2021. Assessment of meat quality attributes of four commercial broiler strains processed at various market weights. *Poult. Sci.* 100(E-Suppl. 1):299 (Abstr.).
59. Maynard, C. J., A. Jackson, J. Caldas-Cueva, A. Mauromoustakos, M. T. Kidd, **S. J. Rochell**, and C. M. Owens. 2021. Quality attributes of standard and high breast yielding broilers raised for small and big bird debone markets. *Poult. Sci.* 100(E-Suppl. 1):298 (Abstr.).
58. Mullenix, G., C. W. Maynard, **S. J. Rochell**, W. G. Bottje, R. D. Brister, and M. T. Kidd. 2021. *Spirulina (Arthrospira) platensis* ingredient characterization and amino acid digestibility in male Cobb 500 broilers. *Poult. Sci.* 100(E-Suppl. 1):127 (Abstr.).
57. Ayres, V., M. E. Jackson, S. Cantley, **S. J. Rochell**, C. D. Crumpacker, D. T. Lee, B. C. Bodle, W. J. Pacheco, M. Rueda Lastres, C. A. Bailey, K. N. Gardner, T. Boltz, and J. Moritz. 2021. Multi-experiment evaluation of increasing phytase activity from Optiphos and Optiphos Plus on 21-d broiler performance and tibia mineralization. *Poult. Sci.* 100(E-Suppl. 1):147 (Abstr.).
56. Lee, D. T., J. Lee, and **S. J. Rochell**. 2021. Broilers administered a live coccidiosis vaccine or fed a chemical anticoccidial responded similarly to increased dietary amino acids contributed by soybean meal or feed-grade sources. *Poult. Sci.* 100(E-Suppl. 1):129 (Abstr.).
55. Teyssier, J. R., A. Preynat, P. Cozannet, E. S. Greene, S. Dridi, and **S. J. Rochell**. 2021. Effects of different heat stress models on ileal nutrient digestibility and molecular markers of protein metabolism. *Poult. Sci.* 100(E-Suppl. 1):127 (Abstr.).
54. Barros, T. L., C. Vuong, E. McGill, **S. J. Rochell**, G. Tellez-Isaias, and B. M. Hargis. 2021. Horizontal transmission of histomoniasis may be influenced by feed composition and strains of *Histomonas meleagridis*. *Poult. Sci.* 100(E-Suppl. 1):76 (Abstr.).
53. Bodle, B., C. Crumpacker, D. T. Lee, M. Jackson, and **S. J. Rochell**. 2020. Comparison of an intrinsically heat stable and a coated phytase on growth performance and tibia characteristics of broiler chicks. *Poult. Sci.* 99(E-Suppl. 1):72 (Abstr.).

52. Teyssier, J. R., A. Preynat, M. Briens, S. Dridi, and **S. J. Rochell**. 2020. Constant and cyclic chronic heat stress models differentially influence growth performance and carcass traits of broilers. *Poult. Sci.* 99(E-Suppl. 1):35 (Abstr.).
51. Maynard, C. W., S. Liu, J. Lee, J. Caldas, E. Diehl, **S. J. Rochell**, and M. T. Kidd 2020. Implementation of Box-Behken design to evaluate potential dietary interactions among the branched-chain amino acids. *Poult. Sci.* 99(E-Suppl. 1):31 (Abstr.).
50. Bodle, B., S. Vaessen, J. Broomhead, S. Dridi, and **S. J. Rochell**. 2020. Evaluation of tributyrin supplementation in diets varying in lipid source and corn particle size on live performance and nutrient utilization in broilers reared to 21 d. *Poult. Sci.* 99(E-Suppl. 1):30 (Abstr.)
49. Teague, K. D., L. E. Graham, B. Graham, B. Hargis, and **S. J. Rochell**. 2020. In vivo evaluation of Bacillus isolates selected based on qualitative in vitro enzyme activity against soybean meal carbohydrates as direct-fed microbial candidates for broiler chickens. *Poult. Sci.* 99(E-Suppl. 1):27 (Abstr.)
48. Graham, L. E., K. Teague, B. Graham, **S. J. Rochell**, and B. M. Hargis. 2020. Isolation and selection of Bacillus spp. as candidate direct fed microbials based on qualitative in vitro enzymatic hydrolysis of indigestible non-starch polysaccharides and oligosaccharides found in soybean meal. *Poult. Sci.* 99(E-Suppl. 1):26 (Abstr.).
47. Lee, D. T., J. Lee, and **S. J. Rochell**. 2020. Evaluation of a threonine fermentation product as a source of digestible threonine in broilers. *Poult. Sci.* 99(E-Suppl. 1):23 (Abstr.).
46. Maynard, C. W., S. Liu, J. Lee, J. Caldas, E. Diehl, **S. J. Rochell**, M. T. Kidd. 2020. Determination of dietary digestible valine:lysine ratio for Cobb MV × 500 male and female broilers from 15 to 35 d of age. *Poult. Sci.* 99(E-Suppl. 1):23 (Abstr.)
45. Mitre, K., K. Herrick, and **S. J. Rochell**. 2020. Apparent metabolizable energy content of 11 sources of distillers dried grains with solubles determined in broiler chickens at 3 weeks of age. *Poult. Sci.* 99(E-Suppl. 1):19 (Abstr.)
44. Herrero-Encina, J., D. Menoyo, M. Blanch, J. Pastor, and **S. J. Rochell**. 2019. Effect of two bioactive Olea europaea extracts in broiler chickens challenged with Eimeria spp vaccine. *Proc. of 22<sup>nd</sup> Eur. Symp. Poult. Nutr.* (Abstr.)
43. Greene, E., J. Flees, S. Dadgar, B. Mallmann, S. Orlowski, N. Rajaram, **S. J. Rochell**, M. Kidd, C. Brearley, C. Walk, S. Dridi, and H. Whitfield. 2019. Quantum blue reduces the severity of woody breast myopathy via modulation of oxygen homeostasis-related genes in broiler chickens. *Poult. Sci.* 98(E-Suppl. 1):133 (Abstr.)
42. Gautier, A. E. and **S. J. Rochell**. 2019. Influence of coccidiosis vaccination and starter diet lipid concentration on nutrient and energy digestibility, and broiler growth performance and processing characteristics. *Poult. Sci.* 98(E-Suppl. 1):77 (Abstr.)  
- **A. Gautier awarded Certificate of Excellence for oral presentation**

41. Maynard, C. W., S. Liu, J. Lee, J. Caldas-Cuevas, E. Diehl, **S. J. Rochell**, and M. T. Kidd,. 2019. Determination of the 4th limiting amino acid for male and female Cobb MV × 500 broilers from 15 to 35 d in low crude protein vegetable based diets Poult. Sci. 98(E-Suppl. 1):72 (Abstr.)
40. Lee, D. T., J. Lee, and **S. J. Rochell**. 2019. Influence of branched chain amino acid inclusion in diets varying in ingredient composition on broiler performance, processing yields, and paw quality and litter characteristics. Poult. Sci. 98(E-Suppl. 1):72 (Abstr.)  
- **T. Lee awarded Certificate of Excellence for oral presentation**
39. Barros, T. L., L. Beer, C. Vuong, **S. J. Rochell**, G. Tellez, and B. M. Hargis. 2019. Evaluation of dietary administration of sodium chlorate, sodium nitrate, arginine, or a combination of dietary lactose with lactic acid bacterial gavage, for Histomonas meleagridis prophylaxis in poult. Poult. Sci. 98(E-Suppl. 1):61 (Abstr.)
38. Mitre, K., K. Herrick, and **S. J. Rochell**. 2019. Effect of dietary inclusion level on the metabolizable energy content of distillers dried grains with solubles determined in broiler chicks at 21 d of age. Poult. Sci. 98(E-Suppl. 1):28 (Abstr.)
37. Bodle, B., S. Vaessen, S. Dridi, and **S. J. Rochell**. 2019. Evaluation of tributryin in diets varying in lipid source and concentration on broiler live performance and nutrient utilization. Poult. Sci. 98(E-Suppl. 1):1 (Abstr.)
36. Butler, L., A. Mauromoustakas, C. Keen, C. Scanes, J. Caldas, C. Maynard, **S. J. Rochell**, R. Brister, P. Smith, S. Bolden, R. Latham, and M. T. Kidd. 2019. Cobb 700 body weight and feed conversion response to increasing digestible lysine by growth phase. Poult. Sci. 98(E-Suppl. 1):108 (Abstr.)
35. Butler, L., C. Keen, J. Caldas, A. Mauromoustakas, **S. J. Rochell**, C. Scanes, and M. T. Kidd. 2019. Digestible lysine requirements during the starter phase for Cobb MVM x Cobb 700 broiler chickens. Poult. Sci. 98(E-Suppl. 1):107 (Abstr.)
34. Beer, L., C. Vuong, J. D. Latorre, **S. J. Rochell**, X. Sun, G. Tellez, and B. M. Hargis. 2019. Evaluation of deoxycholic acid as a prophylactic treatment to prevent Histomoniasis in turkeys. Poult. Sci. 98(E-Suppl. 1):68 (Abstr.)
33. Liu, S., C. Maynard, **S. J. Rochell**, J. Caldas, and M. Kidd. 2019. Digestible lysine responses of broiler chickens on growth performance and carcass traits from 14 to 35 days post-hatch. Poult. Sci. 98(E-Suppl. 1):53 (Abstr.)
32. Butler, L., A. Mauromoustakos, C. Keen, C. Scanes, J. Caldas, M. T. Kidd, and **S. J. Rochell**. 2019. Responses of Cobb 700 broiler chickens to eight levels of digestible lysine. Poult. Sci. 98(E-Suppl. 1):30 (Abstr.)
31. Deines, J., R. K. Bramwell, D. Yoho, and **S. J. Rochell**. 2019. Effects of hatch basket feed and water access and hatch window on broiler performance and processing yield. Poult. Sci. 98(E-Suppl. 1):20 (Abstr.)

30. Herrera, K., B. Bodle, F. Mussini, C. Williams, and **S. J. Rochell**. 2019. Supplementation of betaine in diets adequate in choline and methionine improves breast meat yield of broilers under varying experimental conditions. *Poult. Sci.* 98(E-Suppl. 1):20 (Abstr.)
29. Gautier, A. E. and **S. J. Rochell**. 2019. Influence of coccidiosis vaccination on nutrient digestibility of feed ingredients in broilers. *Poult. Sci.* 98(E-Suppl. 1):20 (Abstr.)
28. Bong, T. L. Reber, S. Orlowski, N. Anthony, **S. J. Rochell**, and D. Koltjes. 2018. The impact of age and selection on intestinal morphology at 14 and 42 days of age in broilers and layers. *Poult. Sci.* 97(E-Suppl. 1):222 (Abstr.)
27. Butler, L. C., Scanes, **S. J. Rochell**, S. Bolden, A. Mauromoustakos, J. Caldas, C. Keen, and M. Kidd. 2018. Amino acid requirements of high yield broiler breeders to 40 weeks of age reared on high and low weight profiles. *Poult. Sci.* 97(E-Suppl. 1):102 (Abstr.)
26. West, S. P. and **S. J. Rochell**. 2018. Influence of basal diet type on regression-based metabolizable energy values of dextrose determined using index and total collection methods. *Poult. Sci.* 97(E-Suppl. 1):95 (Abstr.). ***S. Rochell invited as 1 of 20 speakers for special inaugural PSA session "4-Minute Abstract Forum: A Showcase for the Future?"***
25. Bodle, B., M. Jackson, and **S. J. Rochell**. 2018. Efficacy of carbohydrase enzymes in diets varying in ingredient composition when fed to coccidiosis-vaccinated broilers. *Poult. Sci.* 97(E-Suppl. 1):57 (Abstr.)  
***- B. Bodle awarded Certificate of Excellence for oral presentation***
24. Cloft, S., **S. J. Rochell**, K. Macklin, and W. A. Dozier, III. 2018. Effects of pre-starter diets varying in amino acid density given to broilers that received coccidiosis vaccination at hatch. *Poult. Sci.* 97(E-Suppl. 1):53 (Abstr.)
23. Gautier, A., C. Ruan, B. Kerr, K. Vignale-Pollock, B. Kremer, and C. Owens, and **S. Rochell**. 2018. Influence of soybean oil thermally-processed in the absence or presence of a liquid antioxidant when fed to broilers with or without an in-feed antioxidant. *Poult. Sci.* 97(E-Suppl. 1):48 (Abstr.)
22. Flees, J., C. Coy, E. Greene, N. Anthony, **S. Rochell**, M. Kidd, C. Walk, S. Velleman, and S. Dridi. Quantum Blue supplementation reduces the severity of woody breast myopathy in broiler chickens. *Poult. Sci.* 97(E-Suppl. 1):28 (Abstr.)
21. Maynard, C. W., R. Latham, R. Brister, C. Owens, and **S. J. Rochell**. 2018. Effects of dietary energy and amino acid density on live performance and carcass characteristics of male and female Cobb MV × 700 broilers. *Poult. Sci.* 97(E-Suppl. 1):6 (Abstr.)
20. Deines, J., D Yoho, R. Bramwell, and **S. J. Rochell**. 2018. Effects of egg storage temperature on pheasant and quail production. *Poult. Sci.* 97(E-Suppl. 1):31 (Abstr.)  
***- J. Deines awarded Certificate of Excellence for oral presentation***
19. Gautier, A. E., J. D. Latorre, P. Matsler, and **S. J. Rochell**. 2018. Longitudinal characterization of coccidiosis control methods on nutrient utilization, oocyst excretion, and plasma carotenoid concentrations in male broilers. *Poult. Sci.* 97(E-Suppl. 1):29 (Abstr.)

18. West, S. P. and **S. J. Rochell**. 2018. Influence of basal diet type on metabolizable energy values of an expeller-extruded soybean meal determined in broiler chicks using the regression method. *Poult. Sci.* 97(E-Suppl. 1):29 (Abstr.)
17. Maynard, C. W., R. Latham, R. Brister, C. Owens, and **S. J. Rochell**. 2018. Effects of dietary amino acid regimens on live performance and processing characteristics of Cobb MV × 700 male and female broilers. *Poult. Sci.* 97(E-Suppl. 1):17 (Abstr.)  
- **C. Maynard awarded Certificate of Excellence for oral presentation**
16. Cloft, S., **S. J. Rochell**, K. Macklin, and W. A. Dozier, III. 2018. Effects of dietary amino acid density and feed allocation during the starter period on 41 d growth performance and processing characteristics of broiler chickens given coccidiosis vaccination at hatch. *Poult. Sci.* 97(E-Suppl. 1):16 (Abstr.)
15. Maynard, C. W., R. Latham, R. Brister, C. Owens, and **S. J. Rochell**. 2017. Dietary amino acid responses of male Cobb MV × 700 broilers from 0 to 46 d post-hatch. *Poult. Sci.* 96(E-Suppl. 1):151 (Abstr.)  
- **C. Maynard awarded Certificate of Excellence for poster presentation**
14. Orłowski, S., N. Anthony, **S. J. Rochell**, D. A. Koltes 2017. Changes in intestinal length and jejunal integrity between broiler and layer chickens. *Poult. Sci.* 96(E-Suppl. 1):202 (Abstr.)
13. Mallmann, B. A., X. Sun, C. M. Owens, **S. J. Rochell**, J. Caldas, and M. T. Kidd. 2017. Performance and meat quality of Cobb MX × 500 male and female broilers as affected by amino acid density. *Poult. Sci.* 96(E-Suppl. 1):317 (Abstr.)
12. **Rochell, S. J.** 2017. Influence of reducing dietary protein concentration in the starter phase via two formulation methods on subsequent performance and processing characteristics of male Cobb 500 broilers. *Poult. Sci.* 96(E-Suppl. 1):282 (Abstr.)
11. **Rochell, S. J.**, C. M. Parsons, and R. N. Dilger. 2015. Influence of dietary amino acid reductions on the response of chicks to an *Eimeria acervulina* infection. *Poult. Sci.* 94(E-Suppl. 1):240 (Abstr.).
10. **Rochell, S. J.**, A. Helmbrecht, J. E. Thomson, T. M. Parr, J. L. Usry, C. M. Parsons, and R. N. Dilger. 2015. *Eimeria acervulina* infection decreases growth, plasma carotenoids, and apparent ileal amino acid digestibility in broiler chicks. *Poult. Sci.* 94(Suppl. 1):52 (Abstr.).
9. **Rochell, S. J.**, T. M. Parr, J. L. Usry, C. M. Parsons, and R. N. Dilger. 2015. Effects of dietary amino acid density and tribasic copper chloride supplementation in *Eimeria acervulina*-infected chicks. *Poult. Sci.* 94(Suppl. 1):31 (Abstr.).
8. **Rochell, S. J.**, L. S. Alexander, R. D. Boyd, W. G. Van Alstine, J. E. Pettigrew, and R. N. Dilger. 2014. Effects of dietary soybean meal concentration on growth performance and immune response of pigs during a porcine reproductive and respiratory syndrome virus challenge. *J. Anim. Sci.* 92 (Suppl. 2):165 (Abstr.).



7. Spangler, H. L., P. L. Utterback, **S. J. Rochell**, C. K. Parr, D. Hilgendorf, C. W. Utterback, C. M. Parsons, Z. Jiang, and P.B. Tillman. 2014. Determining the digestible lysine requirement of 22 to 47 week-old, Lohmann laying hens using two requirement titration methodologies. *Poult. Sci.* 93(Suppl. 1):13 (Abstr.).
6. Clark, D. I., D. L. Clark, **S. J. Rochell**, R. N. Dilger, R. W. Johnson, and A. C. Dilger. 2014. Effects of maternal and postnatal infection with porcine reproductive and respiratory syndrome virus on muscle growth and development in piglets. *FASEB J.* 28(Suppl. 1):731.10 (Abstr.).
5. **Rochell, S. J.**, E. L. Wils-Plotz, M. R. Panasevich, L. A. Merriman, and R. N. Dilger. 2013. Effects of supplemental dietary amino acids on broiler performance and immune responsiveness during an acute *Eimeria acervulina* challenge. *Poult. Sci.* 92(Suppl. 1):73 (Abstr.).
4. **Rochell, S. J.**, P. L. Utterback, H. L. Spangler, C. K. Parr, T. M. Parr, and C. M. Parsons. 2013. Bioavailability of commercial zinc sources in growing chicks. *Poult. Sci.* 92(Suppl. 1):151 (Abstr.).
3. **Rochell, S. J.** and W. A. Dozier. 2012. Relationship between in vitro assays and standardized ileal amino acid digestibility of animal protein meals in broilers. *Poult. Sci.* 91(Suppl. 1):38 (Abstr.).
2. **Rochell, S. J.**, T. J. Applegate, E. J. Kim, W. A. Dozier. 2011. Effects of ingredient composition on rate of passage in broiler chicks. *Poult. Sci.* 90(Suppl. 1):58 (Abstr.).
1. **Rochell, S. J.**, B. J. Kerr, W. A. Dozier. 2010. Energy determination of corn co-products fed to broiler chicks from fifteen to twenty-four days of age and use of composition analysis to predict AMEn. *Poult. Sci.* 89(Suppl. 1):556 (Abstr.).

## **Invited Presentations**

---

60. **Rochell, S. J.** October 9<sup>th</sup>, 2024. Effect of gut health challenges on energy and amino acid utilization in broilers. Symposium: Achieving a more precise amino acid nutrition in poultry diets and its impact on growth performance, health, and sustainability, PSA Latin American Scientific Conference, Iguazú Falls, Paraná, Brazil.
59. **Rochell, S. J.** July 18<sup>th</sup>, 2024. Practical applications of arginine functionality to support broiler health and performance. Symposium: Recent advances in protein and amino acid nutritional dynamics in relation to performance, health, welfare, and cost of production, PSA Annual Meeting, Louisville, KY.
58. **Rochell, S. J.** June 12<sup>th</sup>, 2024. Understanding your ingredient matrix: Methods to determine nutrient and energy availability. US Soybean Export Council Poultry Nutrition and Feed Conference, Rabat, Morocco.
57. **Rochell, S. J.** June 12<sup>th</sup>, 2024. Amino acid and energy responses of modern broiler genotypes. US Soybean Export Council Poultry Nutrition and Feed Conference, Rabat, Morocco.

56. **Rochell, S. J.** May 14<sup>th</sup>, 2024. The influence of environmental and immunological stress on nutritional responses. Evonik Workshop, Auburn, AL.
55. **Rochell, S. J.** April 17<sup>th</sup>, 2024. The influence of environmental and immunological stress on nutritional responses. Tri-State Dairy Nutrition Conference, Ft. Wayne, IN.
54. **Rochell, S. J.** Jan. 24<sup>th</sup>, 2024. Distillers dried grains with solubles – use in broiler and layers diets. U.S. Grains Council Middle East, Africa, and Europe Corn Quality Rollout Conference, St. Julian's, Malta (virtual).
53. **Rochell, S. J.** Dec. 13<sup>th</sup>, 2023. Functional roles of amino acids in healthy and challenged broilers. 10<sup>th</sup> US Soybean Export Council Roundtable for the Feed Industry in Maghreb, Rabat, Morocco.
52. **Rochell, S. J.** Dec. 13<sup>th</sup>, 2023. Metabolic and nutritional responses of broilers during heat stress. 10<sup>th</sup> US Soybean Export Council Roundtable for the Feed Industry in Maghreb, Rabat, Morocco.
51. **Rochell, S. J.** Dec. 12<sup>th</sup>, 2023. Utilization of soybean meal in successful feed formulations. 10<sup>th</sup> US Soybean Export Council Roundtable for the Feed Industry in Maghreb, Rabat, Morocco.
50. **Rochell, S. J.** Sept. 12<sup>th</sup>, 2023. Poultry nutrition research update. CSA Animal Nutrition Internal Meeting, Dayton, OH (virtual).
49. **Rochell, S. J.** July 18<sup>th</sup>, 2023. Precision nutrition to enhance poultry performance and health: The role of functional amino acids. Growth and Development Symposium, ASAS-CSAS Annual Meeting, Albuquerque, NM.
48. **Rochell, S. J.** Feb. 28<sup>th</sup>, 2023. The indigestible fraction – a link between nutrition and gut health in poultry. AB Vista – Wayne Sanderson Technical Roundtable, Birmingham, AL.
47. **Rochell, S. J.** Nov. 16<sup>th</sup>, 2022. Emulsification and fats in broiler diets. Asian Agribiz Broiler Feed Quality Conference, Bangkok, Thailand (Virtual).
46. **Rochell, S. J.** Nov. 15<sup>th</sup>, 2022. Linking nutrient utilization and intestinal health in poultry. 8<sup>th</sup> International Animal Intestinal Ecology and Health Symp., Fujian City, China (Virtual)
45. **Rochell, S. J.** Sept. 13<sup>th</sup>, 2022. Recent findings on phosphorus digestibility of feed ingredients in broilers. Arkansas Nutrition Conference, Rogers, AR.
44. **Rochell, S. J.** July 13<sup>th</sup>, 2022. Understanding amino acid functionality to advance precision nutrition and sustainability goals in poultry production. Poultry Science Association Annual Meeting (Symposium), San Antonio, TX.
43. **Rochell, S. J.** April 7<sup>th</sup>, 2022. Optimizing vegetable-based diets for broiler health and performance. AFGA Nutrition Seminar, Huntsville, AL.
42. **Rochell, S. J.** Nov. 11<sup>th</sup>, 2021. Opportunities for organic trace minerals in poultry feeds. USSEC 1<sup>st</sup> SEC Maghreb Virtual Poultry Nutrition Conference.
41. **Rochell, S. J.** Oct. 26<sup>th</sup>, 2021. Optimizing the use of alternative raw materials in successful feed formulations. 8<sup>th</sup> CJ Animal Nutrition Forum webinar hosted by WattAg.

40. **Rochell, S. J.** Sept. 22<sup>nd</sup>, 2021. Reviewing the use of organic trace minerals in poultry feeds. 82<sup>nd</sup> Minnesota Nutrition Conference, Mankato, MN.
39. **Rochell, S. J.** July 22<sup>nd</sup>, 2021. Intestinal nutrition during challenge scenarios: knowledge and gaps regarding the role of amino acids. Poultry Science Association Virtual Meeting Symposium Presentation
38. **Rochell, S. J.** July 22<sup>nd</sup>, 2021. Impact of diet on water efficiency in broiler production. Poultry Science Association Virtual Meeting Symposium Presentation
37. **Rochell, S. J.** June 2<sup>nd</sup>, 2021. Formulation of broiler chicken diets using distillers dried grains with solubles. U.S. Grains Council Middle East Poultry Industry Virtual Training Course
36. **Rochell, S. J.** June 1<sup>st</sup>, 2021. Importance of amino acids and metabolizable energy in poultry nutrition. U.S. Grains Council Middle East Poultry Industry Virtual Training Course
35. **Rochell, S. J.** February 25<sup>th</sup>, 2021. Early nutrition for broilers: evaluating the effects of feed access in the hatchery. 8<sup>th</sup> US Soybean Export Council Virtual Poultry Roundtable for the Feed Industry in Maghreb
34. **Rochell, S. J.** February 25<sup>th</sup>, 2021. Understanding the relationship between soybean meal carbohydrates and nutrient utilization in broilers. 8<sup>th</sup> US Soybean Export Council Virtual Poultry Roundtable for the Feed Industry in Maghreb
33. **Rochell, S. J.** January 19<sup>th</sup>, 2021. Production of animal source protein by nonruminants. Virtual meeting of the PRICE (Protein in a Changing Environment) interdisciplinary working group.
32. **Rochell, S. J.** Nov. 5<sup>th</sup>, 2020. DDGS in Poultry: Considerations for current feeding approaches. World Ethanol Forum (Virtual)
31. **Rochell, S. J.** Sept. 2<sup>nd</sup>, 2020. Evaluating dietary nutrient and energy utilization in broilers facing enteric stress. Arkansas Nutrition Conference (Virtual)
30. **Rochell, S. J.** Oct. 14<sup>th</sup>, 2020. DDGS in Poultry: Considerations for current feeding approaches. U.S. Grains Council Virtual Grain Exchange (Virtual)
29. **Rochell, S. J.** July 20<sup>th</sup>, 2020. From the Field to the Lab – Modeling the nutritional impacts of enteric stress. Poultry Science Association Virtual Meeting.
28. **Rochell, S. J.** July 5<sup>th</sup> and 9<sup>th</sup>, 2020. Determining relative nutrient value for DDGS in poultry rations. U.S. Grains Council Virtual Roundtable, Virtual Audience from Southeast Asia and China
27. **Rochell, S. J.** June 30<sup>th</sup>, 2020. Nutritional strategies for optimizing gut health in broilers. US Soybean Export Council Poultry Nutrition Virtual Conference
26. **Rochell, S. J.** June 30<sup>th</sup>, 2020. Realizing the value of soybean meal for broilers. US Soybean Export Council Poultry Nutrition Virtual Conference
25. **Rochell, S. J.** June 30<sup>th</sup>, 2020. Evaluating feed ingredients for amino acid and energy availability. US Soybean Export Council Poultry Nutrition Virtual Conference

24. **Rochell, S. J.** Mar. 5<sup>th</sup>, 2020. Soybean meal: Considerations for feeding broilers faced with enteric challenges. Hamlet Protein Poultry Roundtable, Charleston, SC
23. **Rochell, S. J.** Jan. 16<sup>th</sup>, 2020. Betaine in poultry and swine nutrition. Micronutrients Technical Seminar, Orlando, FL
22. **Rochell, S. J.** Nov. 7<sup>th</sup>, 2019. Betaine: Overview and research updates. Micronutrients Technical Seminar, Asheville, NC
21. **Rochell, S. J.** July 4<sup>th</sup>, 2019. Nutrition and health interactions during coccidiosis challenges and vaccination. Huvepharma Technical Seminar, Kuala Lumpur, Malaysia
20. **Rochell, S. J.** June 7<sup>th</sup>, 2019. Nutrition and gastrointestinal health in broilers. US Soybean Export Council Poultry Nutrition and Feeding Seminar, Gdansk, Poland
19. **Rochell, S. J.** June 6<sup>th</sup>, 2019. Dietary energy responses of modern broilers. US Soybean Export Council Poultry Nutrition and Feeding Seminar, Gdansk, Poland
18. **Rochell, S. J.** June 6<sup>th</sup>, 2019. Ingredient evaluation for amino acid and energy utilization. US Soybean Export Council Poultry Nutrition and Feeding Seminar, Gdansk, Poland
17. **Rochell, S. J.** Apr. 9<sup>th</sup>, 2019. Coccidiosis vaccination and nutrient utilization. Webinar for DuPont technical services personnel in India and Southeast Asia
16. **Rochell, S. J.** Mar. 12<sup>th</sup>, 2019. How do coccidiosis challenges influence lipid digestibility and energy utilization? Midwest Poult. Federation Conv. Pre-Show Nutr. Symp., Minneapolis, MN.
15. **Rochell, S. J.** Feb. 28<sup>th</sup>, 2019. Three years as an assistant professor: discoveries in poultry nutrition and career management. University of Illinois at Urbana-Champaign Department of Animal Sciences Seminar Series, Urbana, IL
14. **Rochell, S. J.** Feb. 5<sup>th</sup>, 2019. Feeding DDGS to poultry. International webinar hosted by POET Nutrition
13. **Rochell, S. J.** Jan. 16<sup>th</sup>, 2019. Nutritional interactions with coccidiosis. DuPont and Pilgrim's Pride Technical Seminar, Guntersville, AL
12. **Rochell, S. J.** Dec. 13<sup>th</sup>, 2018. Opportunities for feed additives to impact poultry health and performance. Feed Additives Americas, Miami, FL.
11. **Rochell, S. J.** Oct. 25<sup>th</sup>, 2018. Nutritional approaches to coccidiosis. Dupont Rising Poultry Nutritionist's Roundtable, San Francisco, CA.
10. **Rochell, S. J.** Sept. 24<sup>th</sup>, 2018. Feed efficiency in broilers and the role of high quality soy protein. WISSH/ASA "Feed Senegal" USDA Emerging Markets Program, Dakar, Senegal.
9. **Rochell, S. J.** August 8<sup>th</sup>, 2018. Poultry nutrition and use of soybean meal in broiler feeds. US Soybean Export Council Regional Nutrition and Modern Poultry Housing Management Workshop, Kuala Lumpur, Malaysia via Skype.

8. **Rochell, S. J.** August 2<sup>nd</sup>, 2018. Nutritional impacts on woody breast with an emphasis on amino acids. Poultry Leaders of Tomorrow hosted by Adisseo, Fayetteville, AR.
7. West, S. P. and **S. J. Rochell**. 2018. Influence of basal diet type on regression-based metabolizable energy values of dextrose determined using index and total collection methods. Symposium - 4-Minute Abstract Forum: A Showcase for the Future?, Poultry Science Association Annual Meeting, San Antonio, TX.
6. **Rochell, S. J.** April 11<sup>th</sup>, 2018. The impact of dietary factors on the control of necrotic enteritis. Mid-Atlantic Nutrition Conference, Hunt Valley, MD.
5. **Rochell, S. J.** September 26<sup>th</sup>, 2017. Impact of dietary factors on the control of necrotic enteritis. Delmarva Poultry Industry Nat. Meeting on Poultry Health, Processing, and Live Production, Salisbury, MD.
4. **Rochell, S. J.** May 23<sup>rd</sup> and 24<sup>th</sup>, 2017. Impact of enteric disease on nutrient digestion and absorption. Multi-State Poultry Nutrition Conference, Indianapolis, IN.
3. **Rochell, S. J.** May 22<sup>nd</sup>, 2017. Impact of dietary factors on the control of necrotic enteritis. Merck Poultry Health Summit, New Orleans, LA.
2. **Rochell, S. J.** May 18<sup>th</sup>, 2017. Impact of distillers grains on poultry performance. 21<sup>st</sup> Ann. Distillers Grains Technology Council Symposium, Indianapolis, IN.
1. **Rochell, S. J.** Jan. 13<sup>th</sup>, 2017. Poultry Nutrition – considerations for coccidiosis-vaccinated broilers. Merck Animal Health National Sales Meeting, Jacksonville, FL.

## **Honors and Awards**

---

Early Career Recognition of Professional Excellence, University of Arkansas Division of Agriculture Experiment Station	2022
Finalist (1 of 3) for Dr. John and Mrs. Lois Imhoff Award for Outstanding Teaching and Student Mentorship – University of Arkansas Teaching Academy	2021
UIUC Department of Animal Sciences Graduate Student Fellowship Award	2014
Poultry Science Association Certificate of Excellence	2013
Jones-Hamilton Co. Graduate Student Travel Grant	2013
Poultry Science Association Alltech Student Manuscript Award	2012
Poultry Science Association Certificate of Excellence	2010