

Abdulmohsen Hussen Alqhtani

King Saud University, Riyadh, Kingdom of Saudi Arabia
ahalqahtani@ksu.edu.sa

EDUCATION

- **Ph.D. Agriculture (Poultry Science)**

Mississippi State University, Starkville, MS. November, 2020

Advisor: Dr. David Peebles

Dissertation Title: *In ovo* vaccination of layer chickens with 6/85 and ts-11 vaccine strains of *Mycoplasma gallisepticum*

- **M.S. Agricultural Science (Poultry Science)**

University of Georgia, Athens, GA. August, 2016

Advisor: Dr. Brian Fairchild

Thesis Title: The effect of pen size on water to feed ratio of broiler chickens

- **B.S. Agricultural Science (Animal and Poultry Production)**

King Saud University, Riyadh, SA. May, 2011

TRAINING

- Graduate Teaching Assistant Training. Mississippi State University. Mississippi State, MS. August, 2018
- Effective Use of Biosafety Cabinet, Mississippi State University, Starkville, MS. August 2017
- Introduction to Laboratory Safety, Mississippi State University, Starkville, MS. August 2017
- Bio safety in the Life Sciences Laboratory, Mississippi State University, Starkville, MS. March 2017

CERTIFICATES

Certificate of Completion in Classroom Teaching (August, 2018). “Overview of poultry processing in the United States” The Graduate School, Mississippi State University. Mississippi State, MS.

RESEARCH INTERESTS

- Layer hatchability
- *Mycoplasma gallisepticum* effect on layer hatchability
- *In ovo* technique on MG vaccines
- Layer immunity
- Egg quality
- Egg production
- Evaluate new litter alternative amendments to improve poultry litter
- Poultry management and environment

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EXPERIENCE

Graduate Research Assistant

Poultry Science Department, Mississippi State University, Starkville MS. January 2017 – Present

- Conducts experiments on the efficacy of antimicrobials on *Salmonella*, *Clostridium*, and *E.coli*
- Assists with teaching undergraduate Genetics
- Supervises and trains undergraduate student workers in laboratory work and experiments

Intern

ARASCO (ARASCO Farms), Alkharj, Saudi Arabia. Jun. 2010 – Aug. 2010

- Assisted supervisors in various sections of the farm including poultry feed mill, hatchery, commercial broilers, veterinary section, laboratory, parent breeder houses, and processing plant
- Ensured adequate bio-security procedures were followed during chick brooding
- Made certain daily feeding times were strictly adhered to
- Worked closely with co-workers and promoted a positive working environment for the improvement of the farm

RESEARCH / TEACHING EXPERIENCE

Graduate Research Assistant (Ph.D.) Summer 2017

Duties

Conducts experiments on the control of foodborne pathogens in poultry meat processing
Assists with other projects as appointed by advisor
Supervises and trains undergraduate student workers in laboratory work and experiments

Graduate Research Assistant (M.S.) Spring 2014 – Summer 2016

Research Conducted

“Chick Performance Comparison: TURBOGROW 2 vs. Tray Feeders”
“Evaluation of Broiler Response to Sprinkler Systems”
“Evaluation of Aftech-LT as a broiler house litter amendment”
“Evaluation pen size effect on water to feed ratio of broiler chickens”

Duties

Conducts research
Poultry processing – Evisceration, de-boning, yield calculations
Assists with projects as appointed by advisor
Assists other graduate students in their research
Supervises undergraduate student worker

Teaching Assistant (Genetics). Spring 2019 - spring 2020

Duties

- Teaches the laboratory of 110 – 150 students on genetics

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- Assist the instructor with class materials, preparation, and help students to understand genetics methods

SCIENTIFIC PRESENTATIONS AND POSTERS

Oral Talks

S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Mousstaid, L. Zhang, and E. D. 2020. Peebles Effects of the *in ovo* injection of vitamin D₃ and 25-hydroxyvitamin D₃ on the immune-related gene expression of broilers challenged with coccidiosis Poultry Science Association Annual Virtual Meeting.

S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Mousstaid, L. Zhang, and E. D. 2020. Effects of the *in ovo* injection of vitamin D₃ and 25-hydroxyvitamin D₃ on the vitamin D₃ activity-related gene expression of broilers challenged with coccidiosis coccidiosis. Poultry Science Association Annual Virtual Meeting.

S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Mousstaid, A. Levy, A. Bello, and E. D. Peebles. Improvement the broiler performance and inflammatory responses of Ross 708 broilers when injected *in ovo* with various forms of vitamin D₃. 2020. International Poultry Scientific Forum. Atlanta, Georgia.

A. H. Alqhtani, S. A. Fatemi, K. E. C. Elliott, A. Mousstaid, A. Levy, A. Bello, and E. D. Peebles. Increased breast meat yield of Ross 708 broilers in response to the *in ovo* injection of various forms of vitamin D₃. 2020. International Poultry Scientific Forum. Atlanta, Georgia.

S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Improvement in the inflammatory reaction and small intestine morphology of Ross 708 broilers in response to the *in ovo* injection of various sources of vitamin D₃ when subjected to a coccidiosis challenge. Annual Graduate Student Association of Mississippi State University. Starkville. Sept 2019.

S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Improvement in performance and meat yield of broilers challenged with coccidiosis in response to *in ovo* injection of various source of vitamin D₃. Mississippi Academy of Science. Starkville. July, 2019.

S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Effects of the *in ovo* injection of vitamin D₃ and 25-hydroxyvitamin D₃ on broiler performance meat yield in broilers challenged with coccidiosis Poultry Science Association Annual Meeting. Montreal, Canada.

S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Effects of the *in ovo* injection of vitamin D₃ and 25-hydroxyvitamin D₃ on the small intestine morphology and immunity of broilers challenged with coccidiosis. Poultry Science Association Annual Meeting. Montreal, Canada.

S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Improvement in performance and meat yield of broilers challenged with coccidiosis in response to *in ovo* injection of various source of vitamin D₃. Mississippi Academy of Sciences Summer Student Symposium. Starkville, Mississippi.

A. H. Alqhtani, A., T. Tabler, K. Wamsley, P. Adhikari, C. McDaniel, and A. Kiess." Evaluating Alternative Litter Amendments in an Attempt to Improve Broiler Litter Quality" Poultry Science Association Annual Meeting, San Antonio, TX. 2018

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16th Annual Graduate Research Symposium, MSU, Mississippi State, MS. 2018

“Effects of an in ovo-applied Ts-11 Mycoplasma gallisepticum live vaccine on layer embryos and post-hatch chicks”

A. H. Alqhtani, S. A. Fatemi, K. E. C. Elliott, A. Mousstaaid, A. Levy, A. Bello, and E. D. Peebles. Increased breast meat yield of Ross 708 broilers in response to the in ovo injection of various forms of vitamin D3. 2020. International Poultry Scientific Forum. Atlanta, Georgia.

AWARDS & HONORS

- **BankPlus Travel Award Sponsored by MS Poultry Association.** Poultry Science Association Annual meeting, San Antonio, TX. “Evaluating Alternative Litter Amendments in an Attempt to Improve Broiler Litter Quality” (July, 2018)
- **MPA Foundation Leadership Scholarship Sponsored by International Paper Co.** Destin, FL. “Identifying new antimicrobial that may improve broiler litter quality” (July, 2017)
- **Certificate of Achievement-International Poultry Scientific Forum** Atlanta, GA. “The Effect of Pen Size on Water to Feed Ratio of Broiler Chickens” (January, 2016)

ACTIVITIES / ORGANIZATIONS / PROFESSUINAL DEVELOPMENT

Service

~ **Judge.** Mississippi Region Science and Engineering Fair at Mississippi State University. Mississippi State (2017-2019)

Professional Memberships

- American Veterinary Medical Association (AVMA), 2018-Present
- American Association of Avian Pathologists (AAAP), student member, 2018-Present
- Poultry Science Association (PSA), student member, 2014-Present
- World’s Poultry Science Association
- World’s Poultry Science Journal- Cambridge Core
- The Journal of Applied Poultry Research

- **Extracurricular Activities**

Member: Scuba Dawgs, 2019

Member: Holmes Cultural Diversity Center, 2019-Present

Member: South East Director, Poultry Science Association (PSA), 2018-Present

Member: Ambassador, Poultry Science Association (PSA), 2017-2018

Member: Graduate Student Association, 2017-Present

Member: Saudi Student Association, 2015-Present

- **MEETINGS**

- 92nd Annual Northeastern Conference on Avian Diseases, Penn State Pennsylvania, Sep 2019

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- American Association of Avian Pathologists, San Diego, 2020
- International Production and Processing Expo Atlanta Georgia, Jan 2020
- 91st Annual Northeastern Conference on Avian Diseases, Penn State Pennsylvania, Sep 2019
- International Production and Processing Expo Atlanta Georgia, Jan 2019
- Poultry Science Association Annual Meeting, San Antonio Texas, Jul 2018
- International Production and Processing Expo Atlanta Georgia, Jan 2018
- Poultry Science Association Annual Meeting, Orlando Florida, Jul 2017
- International Production and Processing Expo Atlanta Georgia, Jan 2016
- International Production and Processing Expo Atlanta Georgia, Jan 2015

• WORKSHOPS

Writing a Compelling Proposal (Mississippi State University; January 2017).

Hot Weather Management Workshop, Department of Poultry Science- UGA, GA (2014).

Undergraduate Training, **Department of Animal Production and Poultry Science-** KSU, SA (2013)

• AWARDS AND HONORS

Saudi Arabian Cultural Mission Honor, 2018-2019

Rank 3 in Annual Graduate Student Association of Mississippi State University, Starkville, Mississippi. September 2019.

Graduate Student Association (GSA) Travel Award of \$500, Mississippi State University, Starkville, MS. May 2019

MPA Foundation Leadership Scholarship Sponsored by International Paper Co. Destin, FL.

“Evaluating Different Diets on Broiler Litter Quality and Growth Performance” \$1000 (September, 2017)

Certificate of Achievement- International Poultry Scientific Forum, 2016

King Saud University Higher Education Scholarship, 2011-present

• SCIENTIFIC ABSTRACT

1. **A. H. Alqhtani**, S. A. Fatemi, K. E. C. Elliott, A. Mousstaaid, A. Levy, A. Bello, and E. D. Peebles. Increased breast meat yield of Ross 708 broilers in response to the *in ovo* injection of various forms of vitamin D₃. IPSF. 2020.
2. **A. H. Alqhtani**, T. Tabler, K. G. S. Wamsley, P. Adhikhari, C. D. McDaniel, and A. S. Kiess. 2018. Evaluation Alternative Litter Amendments in an Attempt to Improve Broiler Litter quality. Mississippi State University, MS.
3. **A. H. Alqhtani**, T. Obe, C. D. McDaniel, and A. S. Kiess. 2018. Identifying new antimicrobial that may improve broiler litter quality. Mississippi State University, MS.
4. **A. H. Alqhtani**, B. D. Fairchild, and M. Czarick, 2016. The Effect of pen size on water to feed ratio of broiler chickens. University of Georgia, GA.

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5. S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Mousstaaid, A. Levy, A. Bello, and E. D. Peebles. Improvement the broiler performance and inflammatory responses of Ross 708 broilers when injected *in ovo* with various forms of vitamin D₃. IPSF. 2020.
6. S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Improvement in the inflammatory reaction and small intestine morphology of Ross 708 broilers in response to the *in ovo* injection of various sources of vitamin D₃ when subjected to a coccidiosis challenge. Annual Graduate Student Association of Mississippi State University. Starkville. Sept 2019.
7. S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Improvement in performance and meat yield of broilers challenged with coccidiosis in response to *in ovo* injection of various source of vitamin D₃. Mississippi Academy of Science. Starkville. July, 2019.
8. S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Effects of the *in ovo* injection of vitamin D₃ and 25-hydroxyvitamin D₃ on broiler performance meat yield in broilers challenged with coccidiosis Poult. Sci. (Abstr. # 3212388).
9. S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Effects of the *in ovo* injection of vitamin D₃ and 25-hydroxyvitamin D₃ on the small intestine morphology and immunity of broilers challenged with coccidiosis. Poult. Sci. (Abstr. # 3212457).
10. S. A. Fatemi, K. E. C. Elliott, **A. H. Alqhtani**, A. Bello, and E. D. Peebles. 2019. Improvement in performance and meat yield of broilers challenged with coccidiosis in response to **in ovo** injection of various source of vitamin D₃. MAS (Abstr. # 4).

Skills

- In ovo injection
- Conducted research studies
- Real time PCR
- Assisted with research studies
- Data Collection
- Management of undergraduate workers
- Interaction with collaborating companies
- Intestinal sampling and digesta collection
- Poultry processing
- Micro ingredient mixing
- Farm care over holidays
- Management of undergraduate student workers
- Hatch-Out Program
- 4H/FFA poultry outreach
- Organization of original data
- Window's Microsoft Office Program Proficient
- Feather sexing
- Wing banding
- Field necropsy
- Bird handling
- Ammonia analysis (Draeger)

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- pH analysis
- Moisture analysis
- Microbiology

REFERENCES

Dr. E. David Peebles, Ph.D. (Major Advisor)

Professor of Poultry Science
Mississippi State University
Email: d.peebles@msstate.edu

Scott Branton, PhD

USDA-ARS veterinarian specialist
Mississippi State University
Email: scott.branton@usda.gov

Jeffery Evans, PhD

USDA-ARS microbiology and molecular specialist
Mississippi State University
Email: jeff.evans@usda.gov

G. Todd Pharr, PhD.

Associate Professor of Department of Basic Sciences
College of Veterinary Medicine
Mississippi State University
Email: pharr@cvm.msstate.edu