

CURRICULUM VITAE

AARON KIESS

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EDUCATION

Ph.D.	West Virginia University	(2006)	Major: Genetics and Developmental Biology
M.S.	West Virginia University	(2001)	Major: Animal and Veterinary Science
B.S.	West Virginia University	(1999)	Major: Animal and Veterinary Science

PROFESSIONAL ACADEMIC EXPERIENCE

2008-Present Assistant Professor, Department of Poultry Science, College of Agriculture and Life Sciences, Mississippi State University. Research interests include pre-harvest food safety and poultry litter management.

2006 – 2008: Post-Doctoral Research Fellow, Department of Animal Science, Purdue University. Research included an epidemiological study that evaluated cage design, feeder space, productivity and hen welfare.

2001 – 2006: Graduate research assistant, Interdepartmental Program in Genetics and Developmental Biology, Davis College of Agriculture, West Virginia University. Obtained Ph.D. in Nutritional Biochemistry, under the direction of Dr. Kenneth P. Blemings. Dissertation entitled, “Hepatic α -Amino adipate δ -Semialdehyde Synthase Appears to be Post-Translationally Regulated in Mouse and Chicken.” Research topics and techniques listed below.

1999 – 2001: Graduate research assistant, Division of Animal and Veterinary Sciences, Davis College of Agriculture, West Virginia University. Obtained M.S. in Animal and Veterinary Sciences under the direction of Dr. P. Brett Kenney.

Thesis entitled, "Prevalence of *Campylobacter* in a Turkey Production Facility." Research topics and techniques listed below.

TEACHING

Classes taught at Mississippi State University

Research/Thesis/Dissertation (PO 8000) - various hours of graduate student training per week.
-Supervision and mentoring of graduate research for MS students.

Microbiology of Food Animal Production (PO 3834) - 2 hours of lecture/week and 4 hours of laboratory/week

-The lecture portion of the microbiology of food animal production course provides students with information on microbiology (Aseptic techniques, classification, culturing, identification, and staining methods) and how certain bacteria are associated with food products.

-The laboratory portion of the microbiology of food animal production course provides students with hands on microbiology experience. In the lab, students (as teams) are taught how to protect themselves from harmful situations, chemicals, and bacteria. They are taught how to use instruments located in the laboratory, how to prepare media, and how to culture and identify certain bacteria commonly associated with food items. Students are also taught the necessity of taking good notes. At the beginning of each lab, their notes from the previous lab period are collected and graded.

Avian Anatomy (PO 4833/6833) - 2 hours of lecture/week and 2 hours of laboratory/week

-The lecture portion of the avian anatomy course provides students with information on the anatomical structures (osteology, arthrology, myology, neurology, angiology, dermatology, splanchnology, and endocrinology) of birds.

-The laboratory portion of the avian anatomy course provides students with the opportunity to handle actual birds up close. By identifying the structures and determining the arrangement in the bird, students are able to evaluate visually, how all of the structures work together to develop an anatomical system.

Avian Physiology (PO 4843/6843) - 2 hours of lecture/week and 2 hours of laboratory/week

-The lecture portion of the avian physiology course provides students with information on the function of particular systems (circulatory, immune, respiratory, excretory, and endocrine systems) of the bird.

-The laboratory portion of the avian physiology course provides students with hands on experience with live birds. As a team, students learn how to properly handle, bleed, and euthanize birds. They are also required to perform small experiments in lab that demonstrate the functions of certain systems (Immune, Circulatory, Endocrine, etc).

After each laboratory, as individuals, the students must write a report using refereed journal articles and their lab experience to describe how the function of that system provides the bird the ability to exist as an anatomical system.

Undergraduate Students Trained:

Melissa D. Haines: Research title: Evaluating different gas delivery methods that create a microaerophilic environment for culturing *Campylobacter jejuni*. Presented at the 2010 JAM meeting in Denver. **PSA Undergraduate Award Winner.**

Graduate Students Trained:

Major Advisor for:

Melissa Haines: Current M.S. student.

Derrick Everett: Current Ph.D. student.

Nick Sallas; Non-thesis M.S. in May 2011. Currently working for MoArk as the Coordinator of Quality Assurance.

Krista N. Eberle; M.S. in August 2010. Thesis title: Prevalence of *Campylobacter jejuni* in Newly Constructed Broiler Houses: A One Year Survey. Currently working for the United Egg Producers (UEP) as the Director of Food Safety Programs.

Committee Member for:

Michael R. Dooley; M. S. in May 2011. Thesis title: Evaluation of L-Carnitine in ovo Injection followed by L-Carnitine Feed Supplementation on the Broiler Hatching and Growing Characteristics. Major Advisor Dr. Alejandro Corzo associate professor in the Poultry Science Department.

Adebayo Sokale; M.S. in May 2011. Thesis title: A Proteomic Approach to Profiling the Pipping Muscle of the Broiler Embryo. Major advisor Dr. E. David Peebles professor in the Poultry Science Department.

Amy Schmidt; Ph. D. in August 2010. Dissertation title: Design and Analysis of Static Windrow Piles for In-House Broiler Litter Composting. Major advisor Dr. Jeremiah D. Davis assistant professor in the Agriculture and Biological Engineering Department.

Kelsey Jo Barker; M.S. in December 2009. Thesis title: In-House Windrowing

of a Commercial Broiler Farm and Its Effect on Litter Composition. Major advisor Dr. Mike T. Kidd professor in the Poultry Science Department.

Zachary T. Williams; M.S. in December 2008. Thesis title: The Effect of Used Broiler Litter on the Growth and Persistence of *Campylobacter*. Major advisor Dr. Yvonne Vizzier Thaxton professor in the Poultry Science Department

SERVICE

Public Service:

Consulted with a prominent table egg producers to help implement management strategies, so that they may stay compliant with the FDA Final Rule on Salmonella enteritidis in shell eggs.

Consulted with prominent table egg producers on revising HACCP plan for shell egg processing.

Consulted with prominent broiler production companies in Mississippi on identifying management practices to reduce disease and promote the well being of their flocks.

Consulted with prominent broiler hatcheries in Mississippi to evaluate hatchery management issues.

Consulted with prominent duck producers to setup standard operating procedures for isolating *Campylobacter*.

Provided standard operating procedures and assisted in the isolation of *Campylobacter* at the USDA-ARS, Livestock Behavior Research Unit in West Lafayette, IN.

Professional Service:

2011 SPSS Student Presentation Judge for Physiology.

2011-present Reviewer for Animal Feed Science and Technology journal.

2010 Poultry Science Section Chair and Session Chair for Processing, Products, and Food Safety.

2009-present Journal of Applied Poultry Research editorial board.

2009 SPSS Student Presentation Judge for Processing, Products, and Food Safety.

2009 Poultry Science Session Chair for Processing Products, and Food Safety.

2008-present Reviewer for Poultry Science journal.

University Service:

2010-present Institutional Animal Care and Use Committee member

2009-present University Courses and Curricula Committee member.

2008-present Graduate Faculty, regular member.

Departmental Service:

2011 Chair for Screening Committee (Environmental Management Faculty Position)

2010-present Undergraduate Coordinator.

2010-present Poultry Science Scholarship Committee.

2009-2011 Undergraduate Advisor

2008 Search Committee member (Extension Instructor).

PROFESSIONAL DEVELOPMENT

Participation in roundtable discussions with the AFRI National Program Leaders: Hosted by the AFRI.

Twelve Keys to Successful Grant Writing (Workshop): Robert P. Lowman, Ph.D., University of North Carolina at Chapel Hill.

Participation in HACCP ROUNDTABLE discussions for Meat, Poultry and Egg Processors: Hosted by the Indiana State Poultry Association.

PROFESSIONAL ASSOCIATIONS

Poultry Science Association
Southern Poultry Science Society
Mississippi Poultry Association
World Poultry Science Association

West Virginia University Chapter of Sigma Xi National Honor Society

AWARDS

- 2006 Sigma Xi National Honor Society award winner, Life and Agricultural Sciences Research area, West Virginia University.
- 2005 Best Graduate Student Poster Presentation, Davis College Graduate Poster Competition, West Virginia University.
- 2004 Best Graduate Student Poster Presentation, Davis College Graduate Poster Competition, West Virginia University.
- 2001 The Nicholas Turkey Communications Award, Poultry Science Association meetings.
- 2001 Recipient of a Certificate of Excellence. Poultry Science Association meetings.

GRANTSMANSHIP

- 2011 MAFES Strategic Research Initiative Program, entitled *Repeated Application of Litter Amendments to Reduce Ammonia in Broiler Houses*. Funding Requested: **\$25,000** for one year. Outcome: **Funded** (Coll. w/ J.L. Purswell, and J.D. Davis).
- 2010 MAFES Strategic Research Initiative Program, entitled *Evaluating the Primary Site of Poultry Contamination by Campylobacter jejuni using Fluorescent Microscopy*. Funding Requested: **\$10,900** for one year. Outcome: **Funded** (Coll. w/ C.D. McDaniel).
- 2009 Agriculture and Food Research Initiative Competitive Grant Program, entitled *Determining the Quantity of Campylobacter in Commercial Broiler Houses in an Attempt to Identify Sources that Could Reduce on Farm Contamination*. Funding Requested: **\$372.664** over 3 years. Outcome: **Not Funded** (Coll. w/ J.L. Purswell, J.D. Davis, and C.D. McDaniel).
- 2008 Project Director, MSU Food Safety Initiative Grant, entitled *Examining a Novel Technique for Addressing Food Safety Concerns: Photonic Imaging of a Luminescent Strain of Campylobacter*. Funding Requested: **\$48,284** over two year. Outcome: **Funded** (Coll. w/ C.D. McDaniel).
- 2007 Co-Project Investigator, US Poultry and Egg- Commercial Egg Production, entitled *The Effect of Manure Pass-Through on Hen Health, Productivity, Egg Food Safety, and Hen Wellbeing*. Funding requested: **\$70,000** over two years. Outcome: **Not Funded**. (Coll. w/ J.P. Garner).

INVITED PRESENTATIONS

- 2011 **Kiess, A.S.** Magnolia Beef and Poultry Expo. “Windrowing: Does it Work and Why?” Raleigh, MS
- 2010 **Kiess, A.S.** Mississippi Poultry Association, Fall Grower Seminars. “Cold Stress and Its Effects on Bird Health” Philadelphia, MS.
- 2010 **Kiess, A.S.** Mississippi Poultry Association, Fall Grower Seminars. “Cold Stress and Its Effects on Bird Health” Raleigh, MS.
- 2010 **Kiess, A.S.** Mississippi State University, Mississippi Agriculture and Forestry Experiment Station, New Faculty Mentoring Group. “The Importance of Knowing and Meeting your National Program Leaders”

OTHER PRESENTATIONS

- 2010 **Kiess, A.S.** Mississippi State University, Department of Poultry Science, Nigerian Poultry Training. “Preharvest Food Safety: Starting at the Farm”
- 2008 **Kiess, A.S.** Mississippi State University, Department of Poultry Science, Nigerian Poultry Training. “Preharvest Food Safety: Starting at the Farm”
- 2006 **Kiess, A.S.** West Virginia University, Davis College of Agriculture, Forestry and Consumer Science, Retiree Banquet Luncheon. “Experiences as a Graduate Student in Animal Science”
- 2006 **Kiess, A. S.,** B. M. Stinefelt, A. J. Gentilin, M. E. Wilson, H. Klandorf and K. P. Blemings. West Virginia University, Davis College of Agriculture, Forestry and Consumer Science, 10th Annual Student Research Conference and Sigma Xi Graduate Research Day. “Lysine Catabolism in Chickens Fed at or Below Their Lysine Requirement”
- 2005 **Kiess A.S.,** B.M. Stinefelt, C.M. Cantrell, M.E. Wilson, H. Klandorf and K.P. Blemings. West Virginia University, Davis College of Agriculture, Forestry and Consumer Science, 9th Annual Student Res. Conf. and Sigma Xi Graduate Research Day. “Lysine α -Ketoglutarate Reductase Activity Appears to be Post-translationally Regulated in Mice Fed High Protein Containing Diets”
- 2004 **Kiess A.S.,** B.M. Stinefelt, C.M. Cantrell, A.G. Higgins, M.E. Wilson, H. Klandorf and K.P. Blemings. West Virginia University, Davis College of Agriculture, Forestry and Consumer Science, 8th Annual Student Research Conference. “Regulation of Hepatic Lysine α -Ketoglutarate Reductase in Mice Fed High or Adequate Protein Diets”