

The Poultry Wire

The Newsletter of

The Poultry Science Department



College of Agricultural and Environmental Sciences – University of Georgia — www.poultry.uga.edu

Word From the Department Head

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This will be the last time I have a chance to contribute a “word from the department head” as I am retiring in January 2016. I have said often, “when the Department of Poultry Science offered me a job I felt like I had died and gone to heaven.” The University of Georgia has been a truly wonderful place to spend my career. I am very fortunate to have had the opportunity to work alongside so many outstanding university colleagues, industry friends and extraordinary students. I want to thank all of you who have been such great support over the 30 plus years I have been at UGA. A new department head has been selected and a press release announcing that will be out very soon.

I am very pleased to report our enrollment numbers continue to move in a positive direction. Undergraduate enrollment this fall totaled 83 students -



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Dr. Gene Pesti Receives 2015 Evonik Degussa Award

Dr. Pesti received the Evonik Degussa Award for Achievement in Poultry Science. The Evonik Degussa award is an annual award given by the Poultry Science Association as an achievement award, i.e., for distinctive contributions to poultry science advancement, covering a period of not more than seven years preceding the annual award. This award is based on the quality, magnitude, commercial relevance and national and international cooperation of the recipient's work. Dr. Pesti was recognized for his outstanding research in poultry nutrition.



Poultry Science Department Celebrates Mr. Milt Dendy's 100th Birthday at Spring Banquet

The department was delighted to celebrate the hundredth birthday of Mr. Milton Dendy at the spring awards banquet. Mr. Dendy earned two degrees from the University of Missouri after returning from military service in World War II. He joined the faculty at UGA in 1957 and retired from the Poultry Science Department

in 1977 as an extension poultry scientist. Mr. Dendy continued to give back to the poultry industry in his retirement lending his expertise as he consulted with companies around the world. He enjoys attending UGA sporting events and golfing in his spare time.

Word From the Department Head *Continued*

35 Poultry Science and 48 Avian Biology (previously our Poultry Science/Science option). We also have what I think is an all-time high of 31 graduate students. These notable numbers are due to the outstanding recruiting efforts of our faculty, staff and students. I particularly want to thank Brian Fairchild for the great job he has done leading our undergrad recruiting committee.

The number of students in our courses continues to grow. The university puts great emphasis on the number of credit hours generated by each department and our credit hours in Poultry Science continue to increase. Again, the credit for that obviously goes to the faculty who as most of you know are among the very best teachers at the University of Georgia.

Our research and extension programs continue to be recognized as among the best in the world. I am very pleased that several faculty have recently received competitive research funding from USDA, NSF, US Poultry and numerous industry sources. The competition for such funding these days is fierce, and the success of our faculty in these arenas is evidence of their reputations. Our extension program remains one of our strengths and the envy of other land grant universities.

Since our last newsletter, we have added three new faculty. We are very excited Dr. Justin Fowler, an applied nutritionist with expertise in nutrient utilization and mycotoxin binders, has joined us. Dr Fowler has further strengthened

our poultry research and extension efforts in nutrition. Dr. Fowler earned his PhD from Texas A&M University. We are also very pleased to have been able to recruit Dr. Harsha Thippareddi to fill our processing position. Dr. Thippareddi was in a similar position at the University of Nebraska, and we were very fortunate to be able to attract a person of his caliber to our group. Dr. Thippareddi earned his PhD at Kansas State University. He is an internationally renowned microbiologist and food safety expert. Although he will not be joining us until January, Dr. Drew Benson has accepted a faculty position with us. Some of you may know Dr. Benson. He got his PhD in Poultry Science at UGA. After graduating, he completed a post-doc at Emory University and since 2008 has been serving on the faculty at Georgia Gwinnett College. At GGC he earned a reputation as an exceptional teacher. He will be conducting research and teaching in the physiology area.

Again, I want to thank all of you who have made my tenure at the University of Georgia such a rewarding and enjoyable time. I will always be grateful to have had the opportunity to spend all of my career here and to have had the chance to work with so many exceptional people.

International Poultry Expo Scientific Forum Award Winners

Derek Elmore (Advisor – Dr. Gene Pesti) Response of broilers to Virginiamycin and a Xylanase enzyme under summer condition

Caitlin Harris (Advisor – Dr. Jeff Buhr) Impact of extended stun duration and voltage on the recovery of consciousness in broilers

Mandy Howard (Advisor – Dr. Jeff Buhr) Re-evaluation of broiler carcass scalding protocols on the recovery of *Campylobacter* from breast skin after defeathering

Anna Kenyon (Advisor – Dr. Robert Beckstead) In vitro cell screen assay of nickel (II) sulfate and cadmium sulfate showed growth inhibition of *Histomonas meleagridis*

Jonathan “Drew” Morris (Co-Advisors – Drs. Sammy Aggrey & Robert Beckstead) Assessing total body surface area of broiler chickens utilizing Computed Tomography (CT) Technology

Kim Wilson (Advisor – Dr. Jeff Buhr) Addition of charcoals to broilers feeds did not impact *Salmonella Typhimurium* colonization or persistence, or the pH of the crop or duodenum during a 6 wk growout

Congratulations to our Graduates!

Spring 2015

Mia Adams
Ashlynn Amendola
Matthew Bain
Ethan Berman
Tishan Bowen-Gordon
Kimberly Brazis
Nicholas Brown
Mark Ellgass
Rachel Foy
Renay Gregoire
Rachel Harrison
Sarah Harrison
Wesley Hutto
Anna Kenyon
Emily Kimminau
Taylor Lam
Melissa Landrum
Jonathan Morris
Olivia Thaw
Megan Tjahjadi
Katharine Venters
Patrick Whiddon

Summer 2015

Derek Elmore
Devin McLeod
Sanjuana Zaragoza-Santacruz



Avian Academy 2015

This summer 17 Georgia STEM and Agricultural Technology teachers attended the first ever Avian Academy program June 24-26. Recruiting potential poultry science students in the public school system begins with incorporating poultry science labs in the classroom. The objective of Avian Academy is to equip teachers with the tools they need to connect class curriculum with Poultry Science. Avian Academy was met with great enthusiasm by Georgia educators and the pilot program proved to be successful. Faculty members



Internal Anatomy class with Dr. Mark Compton

taught classes and laboratory activities that participants could use in their classrooms to incorporate poultry science in curriculum and spark the interest of students interested in science and agriculture.

Internal anatomy led by Dr. Mark Compton was a highlight for many participants. Biology, life science and agriculture teachers were particularly excited to demonstrate the lab in their class. Lessons in poultry nutrition and genetics led by Dr. Justin Fowler and student Miguel Barrios were useful for agriculture teachers managing school flocks.

Participants enjoyed learning about student life in the department. Touring the Poultry Research Center, and learning about scholarship and internship opportunities available to UGA Poultry Science students helped the instructors understand



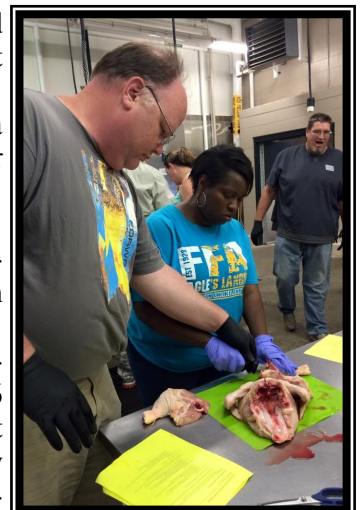
Participants toured the Poultry Farm facilities to learn more about UGA Poultry Science classes.

how to promote the department to their students.

A sensory evaluation lunch of chicken tenders from restaurants around Athens led by Dr. Kiepper was a program favorite. Participants rated their chicken tender samples on flavor, aesthetic appeal and palatability. The participants agreed that this tasty lab activity was sure to be a hit in their classrooms.

The workshop concluded Friday with a day long Poultry Evaluation day. Participants had the opportunity to walk through each class of the FFA Poultry Evaluation Career Development Event to gain an understanding of each class in the contest and understand how to best prepare their poultry judging teams for the event. Avian Academy will be held again next summer.

Any Georgia STEM or Agriculture educators that are interested in attending Avian Academy in 2016 can contact the Poultry Science Department for additional information.



Poultry Processing and Quality Assurance Lesson with Dr. Brian Kiepper

UGA Welcomes New Faculty Members



Dr. Justin Fowler

We are proud to welcome Assistant Professor & Poultry Nutrition Extension Specialist Dr. Justin Fowler to our faculty. Dr. Fowler earned his Ph.D from Texas A&M University after completing a B.S. in Poultry Science. Dr. Fowler's research pursuits involve evaluating clay-based binders as feed additives that can reduce the impact of aflatoxin contamination in the diet. Evaluating feeding strategies that improve the efficiency of nutrient utilization in poultry. Utilizing prebiotic materials to modify the intestinal microflora and promote growth.

Dr. Harsha Thippareddi joined our faculty from the University of Nebraska. Previously, he served as Professor and Extension Food Safety Specialist at the University of Nebraska, Lincoln. He obtained his BS in Dairy Science and Technology from Andhra Pradesh Agricultural University, Hyderabad, India and his MS and Ph.D. from Kansas State University. Subsequently, he worked as a Food Safety Manager at Swift and Company, Marshalltown, IA (an independent operating company of ConAgra) for three years. He served as a Research Assistant Professor at Kansas State University for three years and moved to University of Nebraska in 2002. His research focus was on development and validation of antimicrobial intervention technologies for the meat and poultry industry, including thermal and non-thermal technologies such as High Pressure Processing. He was a Principal Investigator in numerous USDA National Institute for Food and Agriculture (NIFA) funded grants, including a \$2.5 million project on Control of *Listeria monocytogenes* on Ready-to-Eat meat and poultry products and a \$25 million project on Mitigating the risk of Shiga toxin producing *E. coli* in beef systems. He has been awarded numerous awards, including the Harry L. Rudnick Award by North Ameri-

can Meat Processors' Association, Highest honor awarded to an educator in appreciation and recognition of substantial and viable contributions in the furtherance of meat technology and science.

Dr. Drew Benson will join our faculty in January, 2016. A native of Jefferson, Georgia, Dr. Benson received a BSA (2002) and PhD (2006) from the Poultry Science Department at UGA. Drew was awarded an NIH fellowship in the Fellowship in Research and Science Teaching (FIRST) program at Emory University School of Medicine. His research continued in the area of reproductive physiology as he studied sperm surface proteins involved in the initial binding of sperm to the mammalian zona pellucida. Benson also received training in pedagogical methods and research during his time in the FIRST program.

From 2008-2015, Benson served as Assistant Professor of Biology at Georgia Gwinnett College (GGC), Georgia's new liberal arts college. Benson has used several active and cooperative learning techniques to create a stimulating and challenging learning environment in the classroom. Benson is looking forward to using these same pedagogical methods to make his classroom in the Poultry Science Department an active and effective learning environment.

Benson's research interest will continue to be in reproductive physiology. Specifically, he is interested in determining the molecular mechanisms that contribute to fertilization. This knowledge can then be used by the Poultry industry to select for better reproductive fitness in commercial poultry lines. He looks forward to establishing a productive laboratory that utilities both basic and applied research to address poultry reproduction and fertility.



Dr. Harsha Thippareddi



Dr. Drew Benson

Undergraduate Students Experience Internships

Lindsay Brannon

Perdue

Jason Burnett

Tyson

Michael Chambers

Tyson

Jay Curry

Georgia Poultry Lab

Anja Fortier

National Zoological Park
Bird House

Suleica Garcia

Pilgrims

Hannah Glasser

Fieldale Farms

Caitlin Harris

Harrison Poultry

Mitch Hubbard

Tyson

Devin Mcleod

Pilgrims

Daniel Moore

Wayne Farms

John Odom

Cobb

Jarred Oxford

Pilgrims



2015 Scholarship Winners

Hubbard Foundation Scholarship
Hannah Glasser

Harold Harrison Scholarship
John Fetner

J. B. Gay Memorial Scholarship
Caitlin Harris

Sanderson Scholarship
Carly Marchese

**W.A. Crider, Sr.,
Billy Criders & Winston May
Scholarships**
Jessie Mattox, Kaitlyn Heerlien, Sarah Cochran

Roy and Maye Durr Scholarship
Katelyn Prager

Till M. Huston Scholarship
Mitch Hubbard

Centurion Scholarship
Lindsay Brannon

Tom Arrendale Scholarship
Alexandria Talley

Lee Arrendale Scholarship
Jason Burnette

Joe Hatfield Scholarship
Suleica Garcia

**Sophia Merka & John Schutze
Scholarships**
Tyler Reed & Michael Corbin

Caswell Challenge Scholarships
Elizabeth Davis, Jason Burnette, John Fetner, Hannah Glasser

**Georgia Poultry Federation
Scholarship**
Elizabeth Davis

**Georgia Egg Commission
Scholarship**
Lauren Reid

**Cummickel & Poultry Science
Faculty Scholarships**
Laura McLearn, Chelsea Nalley,
Kaleigh Payne, Jarred Oxford

Avian Influenza Preparations & Precautions

The avian influenza (AI) outbreak that occurred out west in the Spring 2015 has all of the poultry companies in the US preparing for the worst case scenario. Highly Pathogenic AI is easily transmitted among birds and will kill the ones that are infected. Water fowl do not get sick from the AI virus but are carriers of the disease. Water fowl and infected birds will shed the virus through their droppings and other secretions. Therefore it is important to prevent poultry from coming into contact with water fowl and other wild birds. The Georgia Department of Agriculture, USDA and UGA have been working together to make sure that poultry producers and backyard flock owners are aware of the risk this Fall as migratory birds travel south. The key is prevention and the fundamental part of

prevention is BIOSECURITY. Poultry producers (and backyard flock owners) should take steps to prevent contact with wild birds and other animals that may have been in areas with wild birds. Poultry producers should dedicate shoes and even clothing to each house. These shoes and coveralls should be put on prior to entering the bird area of the poultry house. Prior to entry it is highly encouraged that people step in either a dry or liquid foot bath to disinfect shoes. More information on AI, its symptoms and prevention can be found at <http://extension.uga.edu/topics/poultry/avian-flu>. If you have a flock of birds that experience high mortality or are exhibiting signs of respiratory disease you should call the Georgia Poultry Laboratory Network Avian Influenza Hotline at 770-766-6850.

2015 PSA Student Awards



Carla D. Aranibar (Ph.D. Student, Advisor Dr. Jeanna Wilson) for her paper titled "Impact of early feeding program on broiler breeder pullet behavior, body weight, and egg production".



Manuel J. Da Costa (Ph.D. Student, Advisor Dr. Gene Pesti) for his paper titled "Effect of environmental temperatures and nicarbazin levels on broilers challenged with *Eimeria* spp".



Cody C. Brown (M.S. Candidate, Advisor Dr. Brian Fairchild) for his paper titled "Evaluation of a raised flooring material for rearing broilers".



This year one UGA undergraduate student presented a paper at the PSA annual scientific meeting in Louisville, KY. **Caitlin E. Harris (Faculty Advisor Dr. Brian Fairchild, Supervising Professor Dr. Robert Beckstead)** presented a paper titled "Comparison of accuracy, cost, and starting cells counts of two methods for *Histomonas meleagridis* in vitro cell screen assays".

In July, four graduate students were recognized with certificates of excellence for the papers they presented at the Poultry Science Association Meeting. These certificates are presented in recognition of students who have presented high-quality research papers at the annual meeting.

Two UGA students received travel awards from Jones Hamilton which is given to assist poultry science graduate and undergraduate students with travel expenses so that they may attend and present their research findings at the annual Poultry Science Association meeting. This was a competitive award given to graduate and undergraduates based on their application and essay. Caitlin Harris received one of the six undergraduate travel awards and Manuel Da Costa received one of the seven graduate student travel awards.



Beckstead Recognized with 2015 First-Year Odyssey Teaching Award

Six UGA faculty were honored with 2015 First-Year Odyssey Teaching Awards at a reception. Dr. Robert Beckstead, an associate professor of poultry science and undergraduate coordinator in the College of Agricultural and Environmental Sciences was honored for his course "Chickenology: Everything You Need to Know About Chickens".

This was the second annual First-Year Odyssey awards reception to recognize outstanding instructors who have demonstrated innovation in teaching, connection of seminar content to the instructor's research and how program goals are incorporated into the seminar.

April 13, 2015 Writer: Tracy N. Coley



Navara Receives National Science Foundation Grant

The National Science Foundation awarded



grant funding to Dr. Kristen Navara and Dr. Mary Mendonca of Auburn University for their research project entitled "Collaborative

Research: Determining the mechanisms by which parental testosterone biases the ratio of male to female birds". Dr. Navara shares "In previous work, we found that when we treated laying hens with testosterone just before they ovulated, they produced nearly 80% male offspring in eggs that were subsequently laid after injection. This can happen because in birds, females have two different sex chromosomes and are responsible for determining the sex. We believe testosterone treatment influenced which sex chromosome the eggs received."

The grant was written to follow up on this finding and attempt to determine the genes responsible for those testosterone-induced effects with the ultimate goal of creating a gene target that we can use to purposefully manipulate the sexes of chicks produced in the poultry industry.

Beckstead Recognized with Outstanding Academic Advisor Award

Athens, Ga. – The University of Georgia announced the recipients of the 2015 Outstanding Academic Advisor Awards during the Faculty Recognition

Banquet at the Georgia Center for Continuing Education.

Awards were presented to Robert Beckstead, a faculty member in the College of Agricultural and Environmental Sciences; Michelle McFalls, an academic advisor in the Grady College of Journalism and Mass Communication; and Diana Beckett, an academic advisor in Terry College of Business.

The award is presented each spring to faculty and staff members for excellence in advising undergraduate students on class selection and course of study, assisting them with academic problems, and providing guidance on related matters such as decisions about graduate school and careers.

In his eight years as a faculty advisor in Poultry Science, Beckstead has voluntarily increased his advising load to ensure each student meets with a faculty member in their first semester. Beckstead also has assisted in designing an advising protocol that has been implemented within the department. Known for inviting advisees interested in graduate or professional school to conduct research in his laboratory, Beckstead is regarded by students as an advocate for their academic success, careers and life decisions.

As one student wrote in the award nomination, "Dr. Beckstead has had the single greatest impact on my academic career thus far."

Recipients are chosen by a committee comprised of a previous winner, an advising administrator, and a majority of undergraduate students, two of whom serve as co-chairs of the meeting at which nominations are reviewed and winners are chosen. The Office of the Vice President for Instruction administers the award each year.

April 13, 2015 Writer: Tracy N. Coley