



DEPARTMENT OF
ANIMAL &
AVIAN SCIENCES

SUMMER 2014





Dr. Tom Porter

DR. PORTER RECEIVES NIFA GRANT

Dr. Tom Porter received a grant of \$500,000 on January 1, 2014, from the National Institute of Food and Agriculture for his project titled “Glucocorticoid induction of endogenous growth hormone (GH) in chicken embryos.”

This research project in Dr. Porter’s laboratory has been funded for 20 years by grants from the USDA. Growth in chickens is controlled in part by the chicken’s production of its own hormones, including GH which is secreted from the chicken’s pituitary gland. The overall hypothesis of this research is that chicken growth can be increased by manipulating the chicken’s production of its own GH. The current proposal aims to define the mechanisms regulating GH production. Identification of these mechanisms will not only increase our understanding of the regulation of this hormone that is essential to normal growth, it will also lead to new information that can be used in breeding programs to produce more efficient chickens and more food for the world’s population.



Dr. Kasey Moyes

ADVANCE SEED GRANT

The seed grant proposal by Dr. Kasey Moyes, along with CoPIs Dr. Xiaoping Zhu of the Veterinary Medicine Program, Dr. Ted Elssasser of USDA, Beltsville and Dr. Brian Bequette has been approved for funding from the ADVANCE Interdisciplinary and Engaged Research seed grant program. It is entitled: “Nutrient Supply and Stage of Lactation: Effects on Metabolism and Inflammatory Response of Bovine Blood Neutrophils” and will be funded for \$20,000. Due to the critical importance of blood PMN for resolution of mastitis and the possible larger susceptibility to mastitis for cows in early lactation, results of this project may lead to improvements in animal health and wellbeing of dairy cows.

DR. MOYES RECEIVES MAES/ UME GRANT

Dr. Kasey Moyes was awarded a MAES/UME Integrative Research and Extension Grant in the amount of \$30,500 for her grant proposal, “Estimating and quantifying the economic impacts, production outcomes and lifestyle changes for small-to-medium sized dairy farms regarding the transition from conventional to automatic milking systems in the Mid-Atlantic region.”



Dean Wei and Dr. Sarah Balcom

DR. BALCOM HONORED WITH TEACHING AWARDS

Dr. Sarah Balcom received a number of awards this Spring. She was recognized for Excellence in Instruction at the AGNR Alumni Associations 47th Annual Alumni Celebration on April 10 at the Riggs Alumni Center. She was awarded the 2014 Outstanding Faculty Educator Award from the AGNR Graduate Student Council at the annual Ag Council/Gamma Sigma Delta (GSD) Banquet held on May 6 in the Grand Ballroom of the Stamp Student Union. At the AGNR Convocation and Awards Program on May 8 in the Riggs Alumni Center, Dr. Balcom was honored with the Paul R. Poffenberger Excellence in Teaching and Advising Award. She was also recently made a member of the University of Maryland chapter of Phi Kappa Phi.



Dr. Debabrata Biswas



Dr. Lisa Taneyhill

DR. TANEYHILL RECEIVES GRANT AND AWARD

Dr. Lisa Taneyhill was awarded a \$50,000 Tier 1 seed grant from the University for her proposal, “Alpha-n-catenin function in mammalian neural crest cell development.” She also received the Summer Research and Scholarship Award (RASA) for Summer 2014 from the Graduate School.

FACULTY MEMBERS RECEIVE CERTIFICATES OF MERIT

Two faculty members, Dr. Lisa Taneyhill and Dr. Sarah Balcom received Certificates of Merit from Gamma Sigma Delta at the Ag Council/Gamma Sigma Delta Banquet held on May 6, 2014 in the Grand Ballroom of the Stamp Student Union. The certificates were given for outstanding efforts in teaching, research, administration, advising, and international service in a field related to agriculture.

DR. BISWAS AWARDED RESEARCH FUNDING

Dr. Debabrata Biswas received funding in the amount of \$40,000 from MAES/UME for his proposal titled: “Ecological prevalence of major foodborne bacterial pathogens in Mixed Crop-Livestock in Maryland and control with feed supplement.”



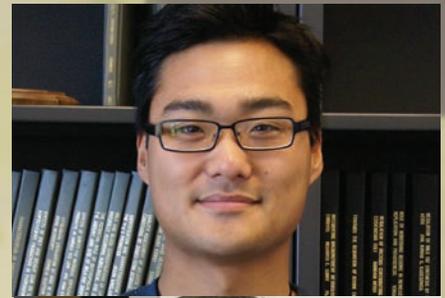
Tricia Rowilson and Anjali Bhadurihauck

GRID AWARDS

Two of the department’s graduate students won first place awards on April 9 at the annual UMD Graduate Research Interaction Day (GRID) which is an on-campus conference-style venue in which graduate students from all academic backgrounds can share their research, obtain valuable faculty and peer feedback, and hone their conference presentation skills. Anjali Bhadurihauck from Dr. Xiao’s laboratory took first place for poster presentation in Session II - Health. Tricia Rowilson from Dr. Ottinger’s laboratory took first place for poster presentation in Session I - Health.



Dr. Sarah Balcom



Tyler Frankel and Ankita Shah

SOARES TRAVEL AWARD

On February 12, 2014, Dr. Porter announced the recipients of the travel award sponsored by Professor Emeritus, Dr. Joseph Soares. Several deserving applications that were submitted and two graduate students were selected to receive this generous gift from Dr. Soares. His support of our graduate program is much appreciated.

Tyler Frankel from Dr. Ed Orlando’s laboratory will receive \$900 to attend the annual meeting of the Society for Integrative and Comparative Biology (SICB) to be held January 3-7, 2015 in West Palm Beach, Florida, where he will be submitting an abstract entitled, “Assortative Mating Based on Coloration in the Freshwater Platyfish, *Xiphophorus maculatus*,” for consideration as an oral presentation.

Ankita Shah from Dr. Lisa Taneyhill’s laboratory will receive \$900 toward the reimbursement of travel expenses to present her abstract titled “Functional role of Annexin A6 in trigeminal ganglia formation” at the 73rd Annual Society for Developmental Biology Meeting to be held July 17-24, 2014 at the University of Washington.



Bess and Pax.



Forest, Hannah Gorrie, Cassie and Allison Pedro.

CAMPUS FARM

NEWBORN COLTS ARE HERE!

PAX ARRIVES

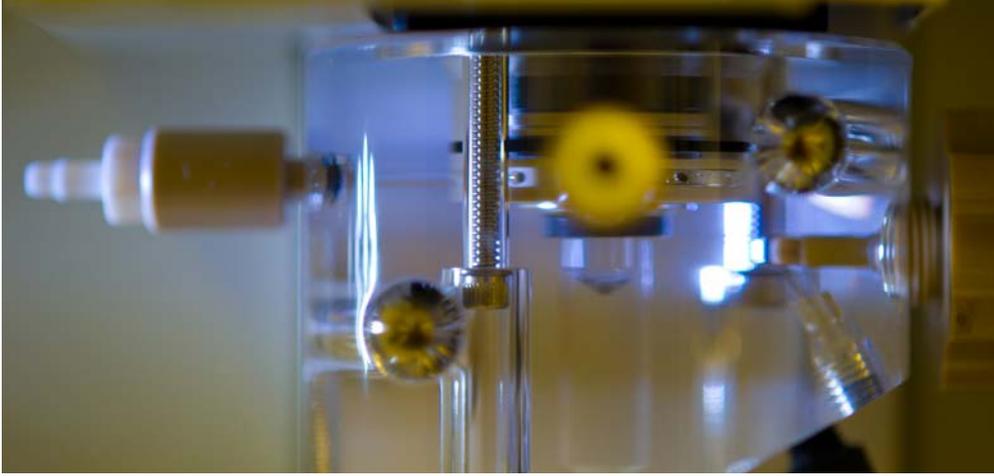
On the night of February 12, Drs. Charlie Apter and Amy Burk, along with 10 undergraduates from ANSC330 the Equine Science class, braved the snowstorm to watch the birth of a healthy Thoroughbred colt born around 11pm at the campus farm. His barn name is “Pax” like the winter storm in which he arrived. Pax is the 7th foal for the mare, The Best Sister, and probably the 275th for the stallion Rock Slide. Rock Slide was a Maryland Top 10 Leading Sire in 2013 with his offspring earning over \$1 million. He is the sire of 11 Stakes

Race winning horses and full-brother to Mineshaft who earned just over \$2.2 million in his racing career. On the sire’s side, our new colt is a grandson of A.P. Indy and a great-grandson of Seattle Slew. Mother and son are doing well.

FOREST THE CHESNUT COLT

Drs. Charlie Apter and Amy Burk and the students of ANSC330 the Equine Science class are pleased to announced that the second and final foal for this semester has arrived! The lanky chestnut colt was born early on March 29 and weighed a respectable 133 lbs

despite being one week early. His long hind legs were a little weak upon arrival, so he will be on limited turnout until the problem corrects itself. This foal is out of the same dam (Cassie) and the same sire (Friesan Fire) as last year’s superstar colt Rebel, so you may notice some similarities in appearance. He is pictured here at his first weigh in with Cassie and students Hannah Gorrie and Allison Pedro. Cassie and the foal are doing quite well and are accepting visitors.



GINA HAN, UNDERGRADUATE RESEARCHER OF THE YEAR

All-S.T.A.R. Fellowship

AWARDED TO DR. JOSE CARRILLO

Dr. Jose Carrillo, graduate student in Dr. John Song's lab, was awarded in May a \$10,000 Graduate All-S.T.A.R. Fellowship from the Graduate School in recognition of being an outstanding scholar and outstanding graduate assistant.



Dr. Carrillo is understandably elated to be awarded the fellowship. "When I received the announcement I got really excited. It is nice to be recognized

for the hard work. The University of Maryland has excellent students and I am very proud to be a member of this institution," he said. "The fellowship is a good incentive to continue pursuing our education and research goals."

Approximately 4,000 UMD graduate students also serve as teaching, administrative, or research assistants. The Graduate All-S.T.A.R. (Scholarship, Teaching, Administration, Research) Fellowships are intended to support and honor graduate students who are both outstanding scholars and outstanding graduate assistants. Graduate All-S.T.A.R. Fellowships are awarded to graduate students in every department and college at University of Maryland and Dr. Carrillo was the winner for AGNR.

Since coming to the US, Dr. Carrillo has published in several peer-reviewed

journals, participated in international meetings, and worked in Dr. Song's lab focusing on genomics and epigenomics in different species of animals. Specifically, Dr. Carrillo has been investigating the effect of diet in the quality of beef. He and his fellow researchers believe that diet interacts with the cattle's genome through epigenomic modifications that ultimately affect the quality and composition of beef. He also explores the epigenomic marks in different diseases in chicken, mice, and humans.

Dr. Carrillo credits his success in the field to ANSC. "The Department has always supported me in achieving my personal objectives. The Department provides the funds for my assistantship, permitting me to take the required classes and to perform my research project," he says. "Additionally, the Department gave me the opportunity to improve my teaching skills while I participated, assisted and lectured in several undergrads courses. I would like to thank the Department members for my nomination for this prestigious award."

As for the future, Dr. Carrillo hopes to graduate with a Ph.D. in late 2015. After that he plans to pursue a career in academia. With this fellowship award Dr. Carrillo looks to be on the right track to accomplish those goals.



Chyong-Yi Wu, Gina Han and Donna Hamilton

Kyeong (Gina) Han, a senior ANSC undergraduate in the Science/Pre-Professional option, was selected as one "Maryland's Undergraduate Researchers of the Year."

This recognition included an award of \$1000 and was presented during Undergraduate Research Day on April 30 in the Stamp Student Union. Gina was nominated for this award by Dr. Lisa Taneyhill. She has been working in Dr. Taneyhill's laboratory for over two years on a project involving the identification and characterization of different cadherin and catenin proteins in neural crest and placode cells that make up the cranial sensory ganglia.

Gina presented her research as part of her Howard Hughes Medical Institute (HHMI) presentation on April 7. She is going to Virginia-Maryland Regional College of Veterinary Medicine in the fall. Gina is pictured here at the awards ceremony with Dr. Chyong-Yi Wu and Dr. Donna Hamilton, Associate Provost for Academic Affairs and Dean for Undergraduate Studies.

FEATURED STUDENTS



28th ANNUAL SYMPOSIUM

FEATURED EVENT

The Department of Animal and Avian Sciences hosted its most exciting event of the year, the 28th Annual Symposium, on Thursday, May 29. Graduate students, postdocs, research associates, and faculty came together to share information they had spent the year gathering with each other and their invited guests. Posters by 24 researchers lined the halls of the building, while in the lecture hall, 10 students gave short oral presentations.



Dr. Lisa K. Nolan, Dean of Veterinary Medicine at Iowa State University, delivered the keynote address. Her research focuses on bacterial diseases of production animals, including their effects on animal health, public safety, and food safety. Her long-term goal is to find a way to deal with E. coli in chickens.

Right now, the bacteria causes colibacillosis, a disease that wreaks economic havoc on the poultry industry every year. In recent years, she has given

several presentations around the world, authored refereed journal articles, written book chapters and garnered millions of dollars in research funds. “She is well-known for her research and administrative activities,” said Dr. Debabrata Biswas, chair of the committee in charge of the Annual Symposium. “Her research topic was the perfect fit for our very diverse department.”

While all the oral presenters did an excellent job, Jason Sinclair, graduate student in Dr. Iqbal Hamza’s lab, earned the top award for oral presentation for the third time in his career. His presentation was called “Long-range Signaling at the Intestinal-Neural Axis Promotes Organismal Heme-homeostasis in C. elegans.” He spoke about the mechanisms that organisms use to control levels of heme, one of the proteins in hemoglobin, the red pigment in blood. “I chose this project because I thought it was fascinating and wanted to further investigate how the process was happening,” the cell biologist stated.

LIST OF ANNUAL SYMPOSIUM WINNERS:

PH.D. STUDENT OF THE YEAR:
ASHLEY FRANKLIN
MASTERS STUDENT OF THE YEAR:
KARLA GARCIA

FIRST PLACE ORAL PRESENTATION AWARD:
JASON SINCLAIR
SECOND PLACE ORAL PRESENTATION AWARD:
ANJULI BHADURIHAUCK

FIRST PLACE POSTER PRESENTATION AWARD:
ANKITA SHAH
SECOND PLACE POSTER PRESENTATION AWARD:
ASHLEY FRANKLIN



Jason Sinclair - three time award winner.



Dan Bruce - Staff Member of the Year.

FEATURED EVENT

The challenge of the Symposium for Sinclair was not the material. Instead, it was in the actual presentation of the information. “Sometimes a short talk is harder than a long talk because you have to make your research really stand out in a limited amount of time. Every word counts,” he asserted. “To win first place and know I was able to get my point across to the audience in 12 minutes is gratifying.” Sinclair will go on to present his work at BioMetals, an annual conference held at Duke University in July.

The ANSC Symposium is a way for the faculty to encourage the students with feedback and awards, but that is not the only purpose it serves. It also gives the presenters experience before participating in national or international conferences by presenting at the departmental level. While all the presenters did a great job, Dr. Biswas said, the winners listed below stood out. “It was difficult for the judges to pick the best two from each group.”



Marie Iwaniuk, Rich Erdman, and Zhengguo Xiao - Grill Masters.

SHAFFNER AWARD, FIRST PLACE
PRESENTATION OF RESEARCH IN POULTRY:
ANKITA SHAH

SHAFFNER AWARD, SECOND PLACE
PRESENTATION OF RESEARCH IN POULTRY:
SERAJUS SALAHEEN

FIRST PLACE RESEARCH ASSISTANT/POSTDOC
PRESENTATION AWARD:
NITYANANDA CHOWDHURY
SECOND PLACE RESEARCH ASSISTANT/POSTDOC
PRESENTATION AWARD:
LINGYANG XU

STAFF MEMBER OF THE YEAR:
DAN BRUCE

AG DAY 2014

We had a beautiful day on April 26 for Maryland Day/Ag Day and a lot of visitors came to see our students exhibiting their hard work in the livestock fitting and showmanship classes. Congratulations to our Grand Champion, Tim Von Thun and all the other winners!



MARYLAND DAY

- 1 Courtyard
- 2 Ian Chambers, Dan Bruce, Sarah Balcom, Lindsey Vansandt, Kasey Moyes, Charlie Apter, Zhengguo Xiao, and Brian Bequette
- 3 Tim Von Thun - Grand Champion
- 4 Equestrian club member riding Finn on Ag Day
- 5 Dean Wei, Charles Iager, Melissa Shaughness, Judy Iager, and President Loh
- 6 Budhan Pukazhenthil explains his research to Ag Day visitors
- 7 And the winner is Brian Bequette!

2014 AG DAY LIVESTOCK SHOW RESULTS

SWINE SHOW:

CHAMPION CHRIS HINDER
RESERVE CHAMPION TIM VON THUN

CLASS 1: NOVICES

TIM VON THUN 1
CALEB WHITFIELD 2

CLASS 2: BEGINNERS

CHRIS HINDER 1
AMBER DEMARR 2
LUKE SANTERRE 3

LAMB SHOW:

CHAMPION HANUM WENSILSTROW
RESERVE CHAMPION ALLISON PEDRO

CLASS 1: BEGINNERS

HANUM WENSIL-STROW 1
MONA REZVANI 2
JANINA VICKERS 3

CLASS 2: BEGINNERS

ALLISON PEDRO 1
DOMINIQUE DAVIS 2
ANNA COXEN 3
ANAHITA VERAHRAMI 4

DAIRY SHOW:

CHAMPION TIM VON THUN
RESERVE CHAMPION MEGAN PARRY

CLASS 1: NOVICE

TIM VON THUN 1
HANNAH SEITZ 2
KATELYN GNEGY 3

CLASS 2: BEGINNERS

MEGAN PARRY 1
KAYLA HENKELMAN 2
SALVATORE MILLINGTON 3

BEEF SHOW:

CHAMPION JOE SHAEFFER

CLASS 1: BEGINNERS

JOE SHAEFFER 1

GRAND CHAMPION SHOW & CHAD CLARK

AWARD:

GRAND CHAMPION TIM VON THUN
CHAD DULIN CLARK MEMORIAL HERDSMAN-
SHIP AWARD BRET BUCCI

ALUMNI DAIRY CLASS:

JESS ARMACOST 1
VICTORIA LAKE 2
KELLY BROWER 3
ANNA MCGUCKEN 4
MICHELLE KURTOVIC 5
REBECCA STOECKER 6

KISS-A-PIG:

BRIAN BEQUETTE



University of Maryland Block and Bridle team at the 2014 NESA contest hosted by the University of Massachusetts Amherst. Left to right: Tim Von Thun, Bret Bucci, Patrick Creighton, Hannah Seitz, and advisor Kiera Finucane.

Block and Bridle Place Second at NESA

Four students from the University of Maryland's Block and Bridle Club placed 2nd of 46 collegiate teams at NESA, a regional livestock competition hosted this year at the University of Massachusetts Amherst in February.

Nearly 200 agricultural students from ten institutions travelled to UMass to showcase their livestock knowledge at the annual meeting of the North Eastern Student Affiliate or NESA of the American Dairy Science Association. Teams went head to head in a series of contests that encompassed all aspects of animal agriculture, including a presentation on current livestock research, a judging contest, and a quiz bowl.

The University of Maryland's Block and Bridle Club sent a team of four students to compete: senior animal science majors Bret Bucci, Patrick Creighton, and Hannah Seitz, and senior agricultural sciences and technology major Tim Von Thun. The trip was the culmination of many months of hard work on the part of the team, the club, and Block and Bridles amazing and dedicated advisors: Kiera Finucane and Jen Reynolds.

Many of the institutions at NESA were able to send 10 to 20 students, but the small Maryland group proved to be the dark horse of the competition. The UMD students placed high in all three areas of the competition, taking fifth in judging, third in quiz

bowl, and fourth for Creighton's presentation on cannulation of horses. The foursome's high rank in all three aspects won them second place of the 46 teams at the contest and earned the University of Maryland the title of number two institution in the Northeast Region, second only to Penn State.

The Block and Bridle Club would like to thank the faculty and staff of the Department of Animal and Avian Sciences for their generous support, as well as the College of Agriculture and Natural Resources. Their continued backing of fundraising and recruitment efforts has strengthened the club immensely and made the achievements of the team at NESA possible.

The University of Maryland's Block and Bridle Club is an animal husbandry and livestock club dedicated to educating students about animal agriculture. Students from all majors and experience levels are invited to join and participate in club activities like NESA and the upcoming Ag Day livestock show at the University's on campus farm.



SPRING GRADUATION

Congratulations!

Both the University of Maryland and the College of Agriculture and Natural Resources graduation ceremonies were held on May 22. Congratulations to our Animal Science graduates!



ANIMAL AND AVIAN SCIENCES DEPARTMENT- GRADUATING CLASS OF 2014:



Archer, Francis Elizabeth
Balcells, Rebecca Lee
Bitsko, Elizabeth Brade
Blocker, Kelsey – Cum Laude, ANSC Chair’s Award Scholarship
Brady, Kristen Marie
Brinks, Constance Jane
Cavelier, Laurence – Cum Laude, ANSC Chair’s Award Scholarship
Chang, Becky
Choe, Seyoung
DeSantis, Carlie
Eckstrand, Laurel Anne
Ervin, Audrey Rose – England Memorial Scholarship
Falk, Katherine Elizabeth
Flexhaug, Cassandra Maria
Francisco, Christina
Friddle, Harlan Hayes
Garcia, Melissa Mercedes
Gorrie, Hannah Paige
Gu, Yue
Han, Kyeong Jin - ANSC Chair’s Award Scholarship
Heuber, Stephanie Anne
Hilario, Saki Nakada
Johnson, Kristen Meagan
Juliano, Kathryn
Juliano, Kathryn
Kim, Elise
Klein, Hannah Leslie
Lee, Hosung
Manoharan, Sindumani – Judith E. Brocksmith Scholarship, ANSC Chair’s Award Scholarship
Michelotti, Laura N.
Miner, Kayla Darlene Ruth – ANSC Chair’s Award Scholarship
Moirano, Steven John – Magna Cum Laude, ANSC Chair’s Award Scholarship
Murray, Caroline Amanda – Summa Cum Laude, ANSC Chair’s Award Scholarship
Nelson, Ryan Virginia
O’Donnell, Meghan Erin – Magna Cum Laude, ANSC Chair’s Award Scholarship
Penaso, Joy S.
Reczynska, Alicja Izabela – Cum Laude, ANSC Chair’s Award Scholarship
Santos, Jessica Maria
Scazero, Lisa – Cum Laude
Slovin, Lily Anna
Stout, Hilary
Thompson, Bianca Rae
Urena, Nivia Maribel
Wensil-Strow, Hanum Naomi – England Memorial Scholarship, ANSC Chair’s Award Scholarship
Yoo, Christian

COMPLETED GRADUATE DEGREES:

Lindsey Vansandt, D.V.M., Ph.D.
Lisa Tucker, M.S.
Emily Goodell M.S.
Jose Almario M.S.