



DEPARTMENT OF
ANIMAL &
AVIAN SCIENCES

SPRING 2015



Dr. Richard Erdman.

NRC COMMITTEE CHAIR

Dr. Richard Erdman has been named to chair the committee for the National Research Council (NRC) Update of the Nutrient Requirement of Dairy Cattle report.

Dr. Erdman has received several awards for his research that focuses primarily on nutrition of the dairy cow with emphasis on energy metabolism and the effects of nutrition on milk components, including the American Feed Industries Award for Dairy Nutrition Research in 1996. He was a member of the NRC committee that prepared the 2001 report on the Nutrient Requirements of Dairy Cattle.

SERVICE RECOGNITION AWARDS

On May 5, at the AGNR Convocation, four of our department staff members were recognized for their years of service to the University. They were: Kim Montague-Smith for ten years, Clare Capotosto and Sandra Nola for 20 years, and Sheryl Grey for 30 years.

Kim Montague-Smith, Program Administrative Specialist, has been the Department Chair's administrative assistant for ten years. Clare Capotosto, Program Management Specialist, has



Clare Capotosto, Sandra Nola, Kim Montague-Smith, and Sheryl Grey.

been with the University for twenty years. She first worked in the Computer Science Department, and then in the Institute for Governmental Services, before joining the department in 2003. Sandra Nola has also been with the University of Maryland for twenty years. She was first hired in 1994 as Associate Director of the Michael D. Dingman Center for Entrepreneurship, and then went to work for the Office of Professional Studies in 1999, first as the Director Administrative Services, then in 2001, as the Assistant Dean of Finance and Operations. Sandra has been the department's Director of Administrative Services since 2010. Sheryl Grey, Business Services Specialist, started working at the University in 1984 in the Department of Dining Services. By 1986 she had moved to the Physical Plant (now called Facilities Management.) In 1989, Sheryl came to work for the Poultry Science department which merged with Animal Science in 1997 to become the Department of Animal and Avian Sciences. The department is proud to acknowledge the service milestones of these four outstanding staff members.



Jennifer Reynolds and Libby Dufour.

2015 AGNR FACULTY & STAFF EXCELLENCE AWARDS

Animal and Avian Sciences is proud to claim the two winners of this year's prestigious College of Agriculture and Natural Resources On-Campus Staff Award, Libby Dufour and Jennifer Reynolds as members of our staff.

Libby is the Assistant Director of the Undergraduate Program and responsible for advising students, supporting faculty in their work as advisors, recruiting prospective students and collaborating on curriculum review and revision.

Jennifer is the Coordinator Equine-Poultry Extension Activities. She assists Extension faculty all over the state with the planning and execution of equine and poultry educational programming. This includes the University Seminar Series at the Horse World Expo, Mid-Atlantic Nutrition Conference, Introductory to Farriery and Nutrition Clinics, Maryland 4-H Poultry Bowl, Poultry Expos, and pasture management trainings. Libby and Jennifer received their awards on May 5 at the AGNR Convocation at Riggs Alumni Center.



Halli Sigal Weiner.

AWARD WINNING GRADUATE STUDENT

Halli Sigal Weiner, Ph.D. student in Dr. Keefer's laboratory, was awarded an Animal Science Graduate Student Association (ASGSA) Graduate Student Grant of \$700 to cover travel costs associated with presenting her research at the 48th Annual Meeting of the Society for the Study of Reproduction, June 18–22, 2015, in San Juan, Puerto Rico. Halli was also awarded "Honorable Mention Graduate Student" at the College of Agriculture and Natural Resources' Alumni Association Banquet on April 16, 2015 at the Riggs Alumni Center. During the 2015 celebration of "Maryland Day," Halli was awarded the H. Palmer Hopkins Scholarship for outstanding teaching at the AGNR Alumni Breakfast, which is given to students in the College of Agriculture and Natural Resources who intend to pursue a career in agricultural science education.

AG STUDENT COUNCIL AWARDS

Award winners, Anna Koziarski–Undergraduate Senior Scholarship, Sophia D'Ambrosio– Undergraduate Junior Scholarship, and Dr. Carol Keefer, Certificate of Merit for Advising and Mentorship were recognized at the Ag Student Council Banquet on May 5th.



Ian Doody.

SCHOLARSHIPS AWARDED AT MARYLAND DAIRY CONVENTION

Ian Doody, Animal Sciences undergraduate, was very successful at the Maryland Dairy Convention on February 28 of this year. Ian was the recipient of two Scholarships, the Maryland Dairy Shrine Scholarship Award of \$500 and the Mid-Maryland Dairy Veterinarians Scholarship Award of \$500.



Anna Koziarski, Sophia D'Ambrosio, and Dr. Carol Keefer.

DECEMBER 2014 GRADUATES

Russell Sean Barnable, Hannah Lauren Busch, Patrick Quinn Creighton, Kelly Elizabeth Dicken, Amanda Faller, Heather Marie Ferguson, Megan C. Hahne, Arielle Lauren Halpern,



2014 Graduates.

Christa Lauren Jacob, Erika Jones, Sarah Shinyoung Kim, Stephanie Kang-Wei Lo, Brandon W. J. Maxwell, Majid Allen Rajabzadeh, Nivia Maribel Urena, Jason Sinclair, Ph.D., Amy Weidman, M.S.

SPRING 2015 GRADUATES

Shawn Michael Adams, Cody Skylor Auxier, Zoe Elizabeth Bailey, Carmen M. Banks, Kelsey Barner, Elisa S. Behzadi, Edith Clark Blair (Chair's Award Scholarship 2013), Aaron Lance Brody, Bret William Bucci, Kari Butler, Monica Jacqueline Capella, Wei Cheng, Ketty Y. Cho, Ramon Concepcion, Christine M. Condo (Department Chair Scholarship 2012, Chair's Award Scholarship 2013), Jonathan E. Davis, Marilyn E. Estoque, Kallie Fehr (Department Chair Scholarship 2012), Alexis Simone Gear, Daniel Benjamin Green, Mitchell Green, Rachael Lauren Heffes, Jacob M. Held, Alayna R. Hendrix (Excellence in Academics Scholarship 2011, Chair's Award Scholarship 2013), Delaney J. Honeyford (Excellence in Academics Scholarship 2011), Alison Jensen, Jianan Liu, Danielle Nicole Lynam, Jessica J. Martin, Lex Michael Matthews, Anna D. Matz (Chair's Award Scholarship 2013), Robert Russell Muir (Chair's Award Scholarship 2013), Sarah Hui Sampliner, Seth Martin Schwartz, Melissa Lauren Shaughness (England Memorial Scholarship 2014), Ericka De'Andrea Stacker, Hannah Elizabeth Temple, Shelly Pamela Toub, Johnny Henry Weiss, Caleb Daniel Whitfield, Kevin C. Yoon



Latisha Judd.

ANSC STUDENT SELECTED TO ATTEND USDA OUTLOOK FORUM

Department of Animal and Avian Sciences doctoral student and UMD Dean's Fellow Latisha Judd was selected from a competitive national pool of applicants to attend the USDA's 2015 Agricultural Outlook Forum, where she will have the chance to interact with other standout students from across the country, rub elbows with agricultural industry leaders, and gather valuable insight for her future career path.

Judd was one of only ten graduate students chosen nationally based on essay submission entitled "The Greatest Challenge Facing Agriculture over the Next Five Years." "I was thrilled to have the opportunity to participate in such a potentially influential discussion on the impact and future of agriculture," said Judd. "I am confident I will learn quite a bit at this forum and I'm excited to be a representative of the University of Maryland."



Tyler Frankel.

COSMOS SCHOLARS GRANT

Tyler Frankel, graduate student in Dr. Edward Orlando's lab, has been awarded a Cosmos Scholars Grant for 2015 in the amount of \$1,690. The title of his proposal is "Effects of a Human Contraceptive Progestin on Reproduction in the Viviparous Mosquitofish." Synthetic progestins are components of human contraceptives and enter water bodies from wastewater treatment effluent. Progestins activate human progesterone receptors and some activate androgen receptors, but in fish many progestins appear to activate the androgen receptor and masculinize female minnows at environmentally relevant concentrations. Tyler will use the money to examine the exposure effects of the progestin, levonorgestrel, on the reproductive health of the mosquitofish.

FIRST PLACE POSTER

Tyler Frankel, was also awarded 1st place for his poster presentation at the meeting of the Chesapeake Potomac Regional Chapter of the Society of Environmental Toxicology and Chemistry held April 24, 2015. His poster was entitled, "Exposure effects of a progestin, gestodene, on the reproductive behavior and fitness of the fathead minnow (*Pimphales promelas*)."



Tricia Rowilson.

PETER W. FARIN MEMORIAL STUDENT TRAVEL SCHOLARSHIP AWARD

Tricia Rowilson, graduate student with Dr. Mary Ann Ottinger and Dr. Pierre Comizzoli at the National Zoo, was awarded the Peter W. Farin Memorial Student Travel Scholarship Award by the International Embryo Transfer Society (IETS.) The award was in the amount of \$1,000 to support the presentation of her work at the 41st Annual Conference of the IETS in Versailles, France, January 10-13, 2015. Her poster was entitled, "Progressive incorporation of cenexin is related to sperm maturation during epididymal transit in the domestic cat".

ANN G. WYLIE DISSERTATION FELLOWSHIP

Graduate student in Dr. Song's lab, Jose Carrillo was awarded a 2015-2016 Ann G. Wylie Dissertation Fellowship. The one-semester award supports outstanding doctoral students who are in the final stages of writing their dissertation. It carries a stipend of \$10,000 plus candidacy tuition remission and \$800 toward the cost of health insurance.

NIH/NIAID GRANT AWARDED

Dr. Iqbal Hamza received a NIH/NIAID funded Phase I STTR grant for \$702,315 for two years.

Dr. Hamza is the PI of the STTR grant and was submitted through his start-up company **Rakta Therapeutics, Inc.** and in collaboration with **UM Baltimore.**



The grant will aid in developing highly potent and selective drugs to block heme transporters in parasites and

cure parasitic infections, a vast and untapped commercialization potential. The STTR grant research mechanism fits with President Loh's vision for accelerating the pace of innovation, entrepreneurship, and technology transfer and commercialization at UMD. The STTR grant will complement Dr. Hamza's research program which is currently funded by several NIH grants.

MAES GRANT

Drs. Andrew Schiffmacher, Lisa Taneyhill, and Carol Keefer have received a \$30,000 Maryland Agricultural Experiment Station (MAES) grant.



The grant is for their research proposal entitled "Investigating the roles of SNAIL transcription factors during bovine trophectoderm lineage segregation."

NIFA GRANT AWARDED

Drs. Carol Keefer and Brian Bequette were awarded a \$452,000 grant by NIFA (USDA) for a project entitled "Fluxomic Evaluation of Bovine Embryo Nutrient Utilization and Viability."



Dr. Ganesh Sriram (Department of Chemical and BioMolecular Engineering) will take over the duties of Dr. Bequette to help in fulfilling the scientific aims of this project.

AMERICAN CANCER SOCIETY GRANT

Dr. Lisa Taneyhill was awarded a \$792,000 grant from the American Cancer Society to study how epithelial-to-mesenchymal transitions are regulated in neural crest cells.



The objectives of the grant are to investigate whether neural crest cells employ epigenetic modifications to regulate proteases whose functions are key for EMT and how sequential processing of cadherins by proteases allows for coordinated regulation and subsequent loss of cadherins during EMT.

Perfect Piggies

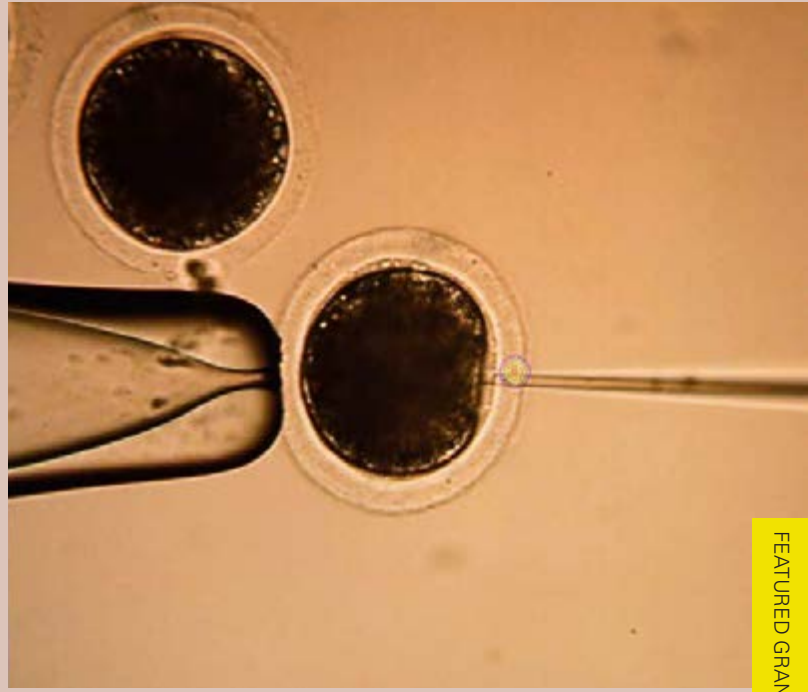
They look like any other week-old piglets squirming to nuzzle against their mother for warmth and sustenance, making soft snorting sounds as they wiggle their stubby, pink piglet tails. However, 18 piglets born recently are the result of two years of intense research by scientists in the College of Agriculture and Natural Resources at the University of Maryland and represent a breakthrough in the field of genetic engineering.

This winter, Bhanu Telugu, PhD, an assistant professor in the Department of Animal & Avian Sciences (ANSC) and Ki-Eun Park, PhD, a faculty research assistant in ANSC, successfully produced genome-edited pigs using a recently developed, groundbreaking technique called the CRISPR system.

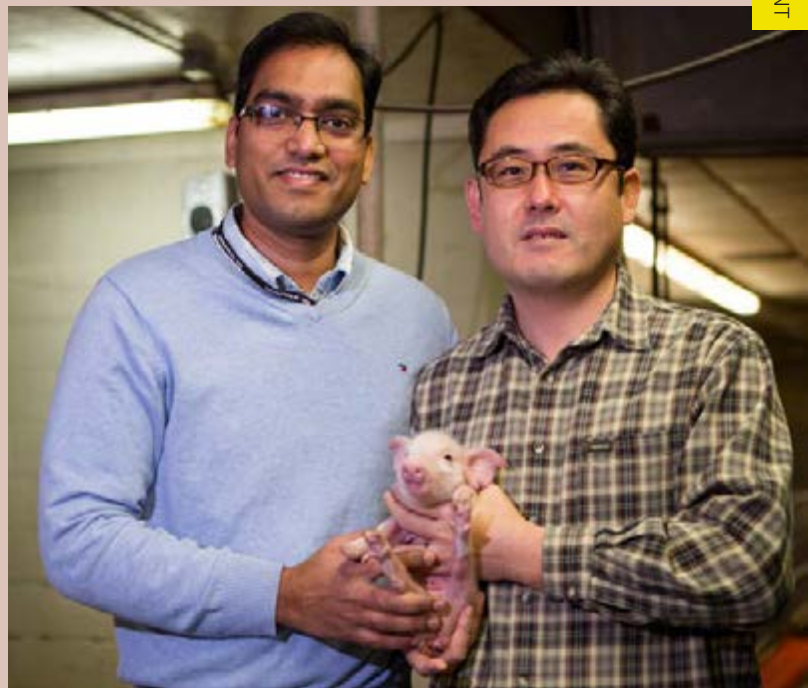
Known as a “target and replace/modify function” for DNA, the CRISPR system has dramatically improved scientists’ ability to disable genes or modify their function inside any living cell. Originally discovered in a natural system used by bacteria to protect themselves from infection by viruses, the CRISPR method is currently being tested in various biomedical applications on a variety of species. Park and Telugu’s lab is one of only a handful in North America to successfully use the method in pigs.

“From a bio-medical standpoint, the pig is really one of the most important animals,” said Telugu, noting that other large animal models like cows or sheep don’t have digestive systems, diets or physiology similar enough to humans’ to provide insight into human diseases. Park and Telugu were able to put their own “spin” on the method, discovering a way to directly modify nucleotides, rather than deleting specific genes to achieve their desired result. The duo is pursuing a patent on this technique.

Now that they’ve successfully used this technology, Park and Telugu plan to look for other applications for improving animal welfare, including disease resistance. Telugu recently received a \$1.6 million grant from the USDA’s National Institute of Food and Agriculture (NIFA) to research flu resistance in pigs ([link is external](#)). He plans to further that research using this new technique and to look for ways to study other human diseases through the pig model, such as diabetes and obesity.



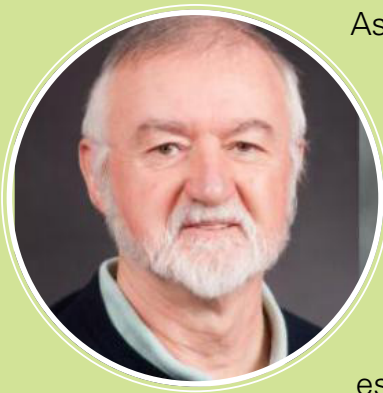
FEATURED GRANT



Drs. Ki-Eun Park, Bhanu Telugu successfully produced genome-edited pigs using the CRISPR system.

DR. IAN MATHER AND DR. MARY OTTINGER NAMED AAAS FELLOWS

Two professors emeritus from the Department of Animal and Avian Sciences (ANSC) have been named Fellows of the American Association for the Advancement of Science (AAAS). Election as an AAAS Fellow is a prestigious honor bestowed upon AAAS members by their peers.



As part of the Agriculture, Food and Renewable Resources Section, Ian Mather, Ph.D., was elected as an AAAS Fellow for distinguished and original contributions in mammary gland biology, especially the characteriza-

tion of milk proteins and elucidation of basic mechanisms of milk secretion. Mather joined the University of Maryland in 1975, became an Associate Professor in 1980 and Professor in 1985. He retired and became an Emeritus Professor in Sept. 2011.

Mary Ann Ottinger, Ph.D., was named an AAAS Fellow in the Biological Sciences Section for distinguished contributions to the field of neuroendocrinology, with particular emphasis on regulation and endocrine disruption of reproduction in avian systems. Ottinger joined the University of Maryland as an Assistant Professor in 1978, became an Associate Professor in 1983 and a Professor in 1989. She left Maryland in 2013 to



become the Associate Vice Chancellor for Research at the University of Houston. Ottinger received a bachelor's degree, master's degree and Ph.D. in zoology from the University of Maryland.

"This is not only a tremendous honor for Dr. Mather and Dr. Ottinger, but also for the Department of Animal and Avian Sciences and the College of Agriculture and Natural Resources," said Tom Porter, Ph.D., chair of the Department of Animal and Avian Sciences. "Both Ian and Mary Ann played substantial roles in the growth and success of our department, and I couldn't be happier for them."

This year 401 members have been awarded this honor by AAAS because of their scientifically or socially distinguished efforts to advance science or its applications. New Fellows were presented with an official certificate and a gold and blue (representing science and engineering, respectively) rosette pin on Saturday, 14 February in San Jose, Calif.

AAAS is the world's largest general scientific society, and publisher of the journal, *Science* as well as *Science Translational Medicine* and *Science Signaling*. AAAS was founded in 1848, and includes 254 affiliated societies and academies of science, serving 10 million individuals. *Science* has the largest paid circulation of any peer-reviewed general science journal in the world, with an estimated total readership of 1 million. For the latest research news, log onto EurekaAlert!, the premier science-news Web site, a service of AAAS.

Gamma Sigma Delta Inductees

Gamma Sigma Delta welcomed the 2014-2015 class of new inductees: **Charlie Apter, Ariel Bourne, Kristen Brady, Ian Chambers, Patrick Creighton, Jaelyn Fiola, Lynn Friedlander, Ori Gutin, Jacob Held, Kathleen Herr, Latisha Judd, Carol Keefer, Amanda Lewis, Meng Li, Aubrey Lowery, Kasey Moyes, Sarah Potts, Sarah Richardson, Christopher Seitz, Ankita Shah, Melissa Shaughness, David Shaughnessy, Seterah Shiroodi, Gabrielle Taylor, Mason Trappio, Louis Wiest, Chyong-Yi Wu, Szewing Yu.**

Gamma Sigma Delta is an honor society dedicated to recognizing academic achievements and accomplishments of individuals who excel in the broad field of agricultural sciences. These excellent individuals all contribute to the understanding and furthering of science. The new inductees were honored at the Ag Council banquet on May 5th.

University of Maryland hosts the National Capital Chapter of Gamma Sigma Delta encompassing all of Washington DC and surrounding areas. Members enjoy opportunities to network with industry professionals, behind the scene tours at cutting edge research facilities, and bond with other their peers and professionals in this exciting field. All levels of students and academics are welcome. If anyone is interested in joining please contact Dr. Andrew Schiffmacher or Megan Brown. Please join us in welcoming our new inductees!

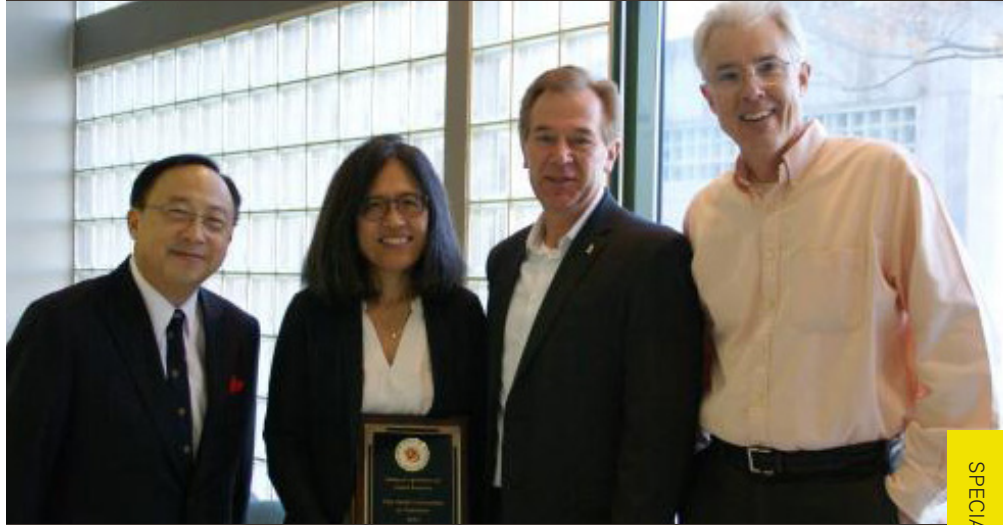


GSD members.

41st

Shorb Lecture in Nutrition

DR. HEI SOOK SUL GAVE THE 41ST SHORB LECTURE ON NUTRITION ON NOVEMBER 18. THE LECTURE SERIES IN HONOR OF DR. MARY SHORB IS SPONSORED JOINTLY BY THE DEPARTMENT OF ANIMAL AND AVIAN SCIENCES AND DEPARTMENT OF NUTRITION AND FOOD SCIENCE.



Drs. David Lei, Hey Sook Sul, Tom Porter, and Edward Orlando.

This year's speaker, Professor Hei Sook Sul, is the Doris H. Callo-way Chair in Human Nutrition in the Department of Nutritional Sciences and Toxicology at the University of California, Berkeley. She joined the faculty at the Harvard School of Public Health in 1985 as an Assistant Professor, was promoted to Associate Professor, and moved to her current position at Berkeley in 1994. Her research interest is in adipocyte development, lipid metabolism, obesity and diabetes. She has published more than 100 peer-reviewed papers in prestigious journals. She has been awarded the American Society of Nutrition, Osborne and Mendel Award in 2006. For the Shorb lecture, Dr. Sul spoke about her research in lipid metabolism, fat cell differentiation, and how her research relates to obesity and diabetes. Her talk was entitled: "Transcriptional Regulation of Lipogenesis."

Dr. Mary Shorb was a Professor of Nutrition at the University of Maryland, College Park in the College of Agriculture (1949-1972). She developed an assay for an essential growth factor that laid the foundation for the discovery, purification and identification of Vitamin B12 by researchers at Merck. The Shorb Lectureship was made possible by an endowment from Merck to honor and perpetuate her legacy through the annual Mary Shorb Lectureship in Nutrition. Among the many honors and accolades, Dr. Shorb received the prestigious Mead-Johnson Award in Nutrition. Every year, a scientist of sterling credentials is invited to give a 'public lecture' on campus focused on the broad area of nutrition. The guest also spends the day meeting with graduate students and faculty with interests in nutrition.

SPECIAL EVENT

Maryland 4-H Dairy Bowl Contest



First Place Junior Team



First Place Intermediate Team



First Place Senior Team

The Maryland 4-H Dairy Bowl Contest was held on Saturday, April 18, 2015 at the University of Maryland College Park. A total of 52 youths from 7 counties (Anne Arundel, Carroll, Cecil, Frederick, Kent, Montgomery and Queen Anne's) participated in the Junior, Intermediate and Senior Divisions. Teams of knowledgeable young people competed for top honors by testing their dairy science knowledge on many levels of the industry including anatomy and physiology, feeding and nutrition, health and diseases, breeding and genetics, herd management, lactation and production, dairy foods and marketing, and other dairy business trivia.

In the Junior Division (youth ages 8-10 as of January 1st) four teams participated. The combined team of three youths from Anne Arundel County and one individual from Carroll County placed first. Team members were: Elizabeth Karides, Ethan Hughes and Seth Hughes from Anne Arundel County and Virginia Burns from Carroll County. The second place team was the team of three members from Frederick County and one individual from Kent County. The third place team was from Carroll County and the fourth place team was from Queen Anne's County.

Sawyer Little from Carroll County placed first on the written exam. The top ten Junior individuals were: 1. Elizabeth Karides (Anne Arundel County), 2. Breckin Welsh (Frederick County), 3. Sawyer Little (Carroll County), 4. Seth Hughes (Anne Arundel County), 5. Ethan Hughes (Anne Arundel County), 6. Kendall Welsh (Frederick County), 7. Bryce Zepp (Carroll County), 8. Bodey Griffith (Carroll County), 9. Virginia Burns (Carroll County), 10. Alexandra Miller (Kent County).

In the Intermediate division (youth ages 11-13 as of January 1st) five teams participated. The combined team two youths from Carroll, one individual from Anne Arundel and one individual from Queen Anne's County placed first. Team members were: Jordyn Griffith and Marissa Roberts from Carroll County, Maxwell Nelson from Anne Arundel

County and Eric Smith from Queen Anne's County. The second place team was from Anne Arundel County, the third place team was from Frederick County, and the fourth placed team was a combined team of two youths from Montgomery County, one individual from Cecil County and one individual from Queen Anne's County. The Queen Anne's County team placed fifth.

Jordyn Griffith from Carroll County placed first on the written exam. The top ten Intermediate individuals overall were: 1. Jordyn Griffith (Carroll County), 2. Marissa Roberts (Carroll County), 3. Maxwell Nelson (Anne Arundel County), 4. Ryan Allen (Frederick County), 5. Grace Hughes (Anne Arundel County), 6. Mindy Burton (Montgomery County), 7. Robert Hahn (Frederick County), 8. Eric Smith (Queen Anne's County), 9. Katelyn Iager (Frederick County), 10. Claire Hughes (Anne Arundel County).

In the Senior division (youth ages 14-18 as of January 1st) four teams participated. First place went to the team from Frederick County. Team members were: Todd Allen, Jonathan Hubbard, Shelby Iager and Tyler Umberger. The team from Cecil County placed second, the combined team of two individuals from Carroll County and two individuals from Montgomery County placed third and the team from Kent County placed fourth.

Olivia Richart from Cecil County placed first on the written exam. The top ten Senior individuals overall were: 1. Olivia Richart (Cecil County), 2. Todd Allen (Frederick County), 3. Shelby Iager (Frederick County), 4. Henry Myers (Kent County), 5. Jonathan Hubbard (Frederick County), 6. Tyler Umberger (Frederick County), 7. Ethan Miller (Kent County), 8. Tyler McMullen (Cecil County), 9. Matthew Nevin (Carroll County), 10. Dylan Hill (Kent County).

The top ten Senior individuals now have an opportunity to try out for a spot on the State team that will compete nationally in the fall.

EXTENSION

Maryland 4-H Poultry and Egg Team Champions

The 2014 National 4-H Poultry and Egg Conference was held November 19-20 at the Kentucky Fair and Exposition Center in Louisville. This annual conference allows 4-Hers from all over the country to compete in educational events that help them learn to make and defend decisions, speak publicly, and gain poultry-related skills.

This year 157 senior 4-Hers, representing 22 states, participated as teams or individuals in the various events. Nineteen teams and two independent individuals participated in the Poultry Judging contest. The Maryland team of Noah Lawrence, Ray Martin, Natalie Panagakos and Drew Ridgeway was the top team in the Market Poultry division and the Market Egg division. They were coached by Dr. Nick Zimmermann and Angelique Livezy. This Maryland 4-H team finished as the overall team champions as well. As the top team, they also received the Dr. Charles Wabeck Memorial Award.

This annual 4-H conference includes five separate competitive events. In the Poultry Judging contest, participants are required to judge ready-to-cook chicken and turkey carcasses, live production hens and market eggs. In the Chicken and Turkey Barbecuing contests participants barbecue three chicken halves or two turkey fillets and give an oral presentation on the corresponding poultry industry. In the Egg Preparation demonstration contest participants prepare an egg dish while giving an oral presentation on the nutritional value and versatility of eggs.



The Maryland team: Noah Lawrence, Ray Martin, Natalie Panagakos and Drew Ridgeway. They were coached by Dr. Nick Zimmermann and Angelique Livezy.



Chicken barbecue contestants.



Turkey barbecue contestants.

New Webinar Series

DR. AMY BURK WAS AWARDED A GRANT FROM THE MARYLAND HORSE INDUSTRY BOARD TO HOST A NEW WEBINAR SERIES TITLED "INNOVATIONS IN EQUINE RESEARCH" IN THE FALL OF 2015. ALL WEBINARS WILL BE ARCHIVED ON THE HORSES EXTENSION PAGE ([HTTPS://EXTENSION.UMD.EDU/HORSES](https://extension.umd.edu/horses)) IN CASE YOU MISS IT LIVE.





Fearless Foaling

Students, faculty excel under pressure to help save newborn horse

A tense scenario inside the horse barn on the University of Maryland’s Campus Farm required quick thinking and heroic actions by a group of students and faculty in the equine studies program to help save one of the newest members of the Terrapin family.

At 7 am on Monday, March 30th, Amazin’ – a pregnant thoroughbred mare – gave birth to a dark brown filly. Thirteen students enrolled in this semester’s equine reproduction course had been camped out all night long inside the animal science building on “foal watch” watching a live video feed of the mare in the stall as they awaited the little one’s arrival. When she lied down and went into labor, they raced over to the barn to attend the foaling if help was needed. Shortly after the birth, it became apparent something wasn’t quite right. “You could tell she was struggling to breathe,” says junior animal science major Allison Pedro. “It was frightening because none of us really knew what was wrong.”

Students and faculty sprung to the filly’s aide. After the horse began to have seizures, a group of students held her

legs still so that she wouldn’t injure herself. Quick thinking led to a call to Dr. Douglas Powell, the university’s on-campus veterinarian. He brought oxygen down to the horse barn and aided the students in rigging up an oxygen mask to hold over the newborn’s face. “The students were awesome. They didn’t sit there crying or shaking their heads or frozen. They pitched in and just were amazing,” says Charlie Apter, PhD, who serves as the instructor for the equine reproduction class.

With the help of an equine veterinarian who quickly arrived on the scene, students and faculty were able to stabilize the filly so she could be transported to the intensive care unit at the Virginia–Maryland Regional College of Veterinary Medicine’s Equine Medical Center in Leesburg, VA – an hour and ten minute drive from the College Park campus. Students wrapped the filly in blankets and physically carried her to the back seat of a pickup truck, where she rode with her head in student Bret Bucci’s lap. “The students were all really mature and showed they could handle everything. There was also a lot of creativity, especially making sure the truck was safe for the filly to ride in the back,” says PhD student Aubrey Lowery, who drove the truck to the equine center in Leesburg. Amy

Burk, PhD, Director of the Equine Studies Program, followed with the filly's mother in the horse trailer. "We really weren't sure at that point if the filly was going to pull through," says Burk.

When they arrived at the hospital, the foal was placed on a padded mattress in a stall and the mare was rejoined with her foal. Since then, Burk says the little horse has received expert care from the veterinarians at the equine center and has continued to improve and gain strength each day. "A student reminded me that the filly shares the same birthday as Secretariat (March 30th) and I've come to believe that she shares his willpower as well," says Burk.



Right: Students wrapped the filly in blankets and physically carried her to the back seat of a pickup truck, where she rode with her head in student Bret Buccicci's lap. Left: Dr. Douglas Powell works with equine students to stabilize filly (Photo credit: Renee Kahn).

Burk and Apter say the filly was afflicted with a rare condition called neonatal maladjustment syndrome – an uncommon complication that can't be diagnosed before birth. "I'm guessing that in my career I have foaled out somewhere around 125 foals but this is the first time I've encountered this problem," says Apter. "I would never plan to have this kind of birth but the fact that the students all had the opportunity to be involved with that is really a unique learning experience."

While the filly is expected to recover fully, Burk says the cost of her care will likely exceed \$6,000 – money the equine studies program does not have in its budget and the department is seeking donations to help cover the veterinary bills.

Most of the students in the equine reproduction course hadn't experienced live foaling before the filly's tumultuous arrival but almost exactly 24 hours later, a mare named Daylight Lassie gave birth to a healthy bay colt in the very next stall. The same group of students were on-hand to welcome him into the world and, this time, prepared to deal with any complications that might arise. Fortunately, this birth proved uneventful by contrast and the colt can now be found happily frolicking in the paddocks at the Campus Farm. Once strong enough, the filly is expected to join her playmate on campus, where students will continue to care for her as they have since the moment she arrived.

"Looking back at it, it feels like a blur because everything happened so fast," says Marleigh Smith, a junior animal science major planning to attend veterinary school. "Obviously everything that happened wasn't good but it ended up being a great experience and I was glad I was there."



Dr. Elizabeth MacDonald of the VA-MD Vet School tends to her recovering equine patient (Photo credit: Rob Burk).



Daylight Lassie.



THE NEWEST MEMBER OF OUR ANSC TERP FAMILY, A THOROUGHBRED FILLY, WAS FEATURED ON CHANNEL 5 FOX NEWS THIS PAST APRIL. STUDENTS AND STAFF WORKED DILIGENTLY WITH VETERINARIANS TO SAVE THE FOAL THAT SUFFERED FROM SEIZURES SOON AFTER BIRTH. AFTER A WEEK OF INTENSIVE CARE AT OUR VA-MD VET SCHOOL, WE ARE HAPPY TO REPORT THE FILLY MADE A FULL RECOVERY AND IS BACK ON CAMPUS. IN FACT, SHE WAS A HUGE HIT AS SHE GALLOPED AROUND THE PADDOCK FOR VISITORS AT AG DAY. CONGRATS TO OUR STUDENTS AND FACULTY AND OUR NEW CELEBRITY FOAL FOR OVERCOMING ADVERSITY.

MARYLAND DAY 2015

April 25 was a chilly day for Maryland Day/Ag Day but still there was a good turn out to watch students compete in the Livestock Show and see Dr. Zhengguo Xiao Kiss-A-Heifer to raise money for Heifer International and the fight to end world hunger and poverty. Here are the results of the day.

1 Ashley Blum judging sheep. 2 Kiss-A-Heifer winner Dr. Zhengguo Xiao. 3 Chad Clark Memorial Award recipient Katelyn Gnegy with fellow nominees Amanda Lewis and Dane Grossnickle. 4 Grand Champion Emily Solis.



2015 AG DAY LIVESTOCK SHOW RESULTS

LAMB SHOW:

Champion – Mona Rezvani
Reserve Champion – Mishta Tak
Class 1:
Mona Rezvani - 1

Sarah Gitterman - 2
Dorielle Brashears - 3
Seth Schwartz - 4
Class 2:
Grace DeWitt - 1
Zaynub Ibrahim - 2
Daphne O’Grady - 3
Carly Gultinan - 4
Claudia Gomez – 5
Class 3:
Camille Chider - 1
Juliana Candelaria - 2
Shannon Pitts - 3

Claire Morse - 4
Class 4:
Mishta Tak – 1
Kaitlyn Moss - 2
Maya Lewis - 3
Ashlynn Stack - 4

BEEF SHOW:

Champion – Emily Solis
Reserve Champion – Matt Antonio
Class 1:
Matt Kerner – 1

Joe Shaffer – 2
Class 2:
Emily Solis – 1
Matt Antonio - 2

DAIRY SHOW:

Champion – Kayla Henkelmen
Reserve Champion – Kristi Persing

Class 1:

Kristi Persing – 1
Annie Tavera - 2
Morgan Wooten - 3
David Floyd - 4

Class 2:

Kayla Henkelmen - 1
Kristina Davis - 2
Breanna Athey - 3
Angie Fratino – 4

**GRAND CHAMPION SHOW & CHAD
CLARK AWARD:**

Grand Champion – Emily Solis
Chad Dulin Clark Memorial
Herdsmanship Award – Katelyn Gnegy

ALUMNI DAIRY CLASS:

Matt Biegel – 1
Bret Bucci – 2
Amy Posey - 3
Dane Grossnickle – 4
Katerina Allen - 5

KISS-A-HEIFER:

Zhengguo Xiao

JUDGES:

Sheep: Ashley Blum
Beef: Jeff Semler
Dairy: Jessica Armacost

STUDENT COACHES:

Sheep: Katelyn Gnegy
Beef: Bret Bucci
Dairy: Dane Grossnickle

FACULTY/STAFF COACHES:

Dr. Sarah Balcom
Ms. Victoria Lake
Dr. Charlie Apter

ANNOUNCER:

Libby Dufour
Club Advisor:
Jen Reynolds

DR. WALTER F. WILLIAMS

Dr. Walter F. Williams, 86, Professor Emeritus of the department died September 20, 2014, at home in Punta Gorda, Florida, surrounded by the love of his family.



He worked at the University of Maryland for 39 years teaching animal science, inspiring graduate students and conducting research at the College Park Campus. He was awarded his Bachelor of Arts degree in 1951, his Master's degree in 1952, and his Doctorate in 1955, all from the University of Missouri.

His work contributed greatly to our knowledge of the physiology of dairy cattle and water buffalo-critical livestock species and food sources throughout the world. In retirement, he served as treasurer of the Audubon Society and volunteered at archeological digs in both Maryland and Florida.

The family welcomes donations in his memory to support the:

Beth Williams & Tom Thorne
Wildlife Disease Training Fund
c/o UW College of Agriculture & Natural Resources
1000 E. University Ave. Dept. 3354, Laramie, WY 82071



Dr. Chad Stahl.

New Department Chair

The Department of Animal and Avian Sciences welcomes a new Department Chair.

Dr. Chad Stahl comes to us from North Carolina State University where he was a Professor in the Department of Animal Science. Dr. Stahl obtained his M.S. and Ph.D. in Animal Science from Cornell University. He received a B.S. in Animal Science from North Carolina State University in 1996. After first working as a biologist with FDA's Center for Veterinary Medicine, Dr. Stahl became an Assistant Professor in the Animal Science Department at Iowa State University in 2002 with a research and teaching appointment.

In 2007, Dr. Stahl was recruited to become an Associate Professor at North

Carolina State University in the Department of Animal Science where he held a research and extension appointment. He was subsequently promoted to Professor in 2013. Dr. Stahl joined the University of Maryland as a new faculty member and chair on June 1. His research focuses on early life nutrition and the programming of tissue-specific stem cells.

The department members thank Dr. Tom Porter for his outstanding service as Chair and are most grateful for his dedication and guidance. Throughout his eight-year tenure, Dr. Porter was a tireless advocate for the department, working to grow the faculty and improve facilities. We wish him well as he returns to the role of professor focusing on research and teaching.