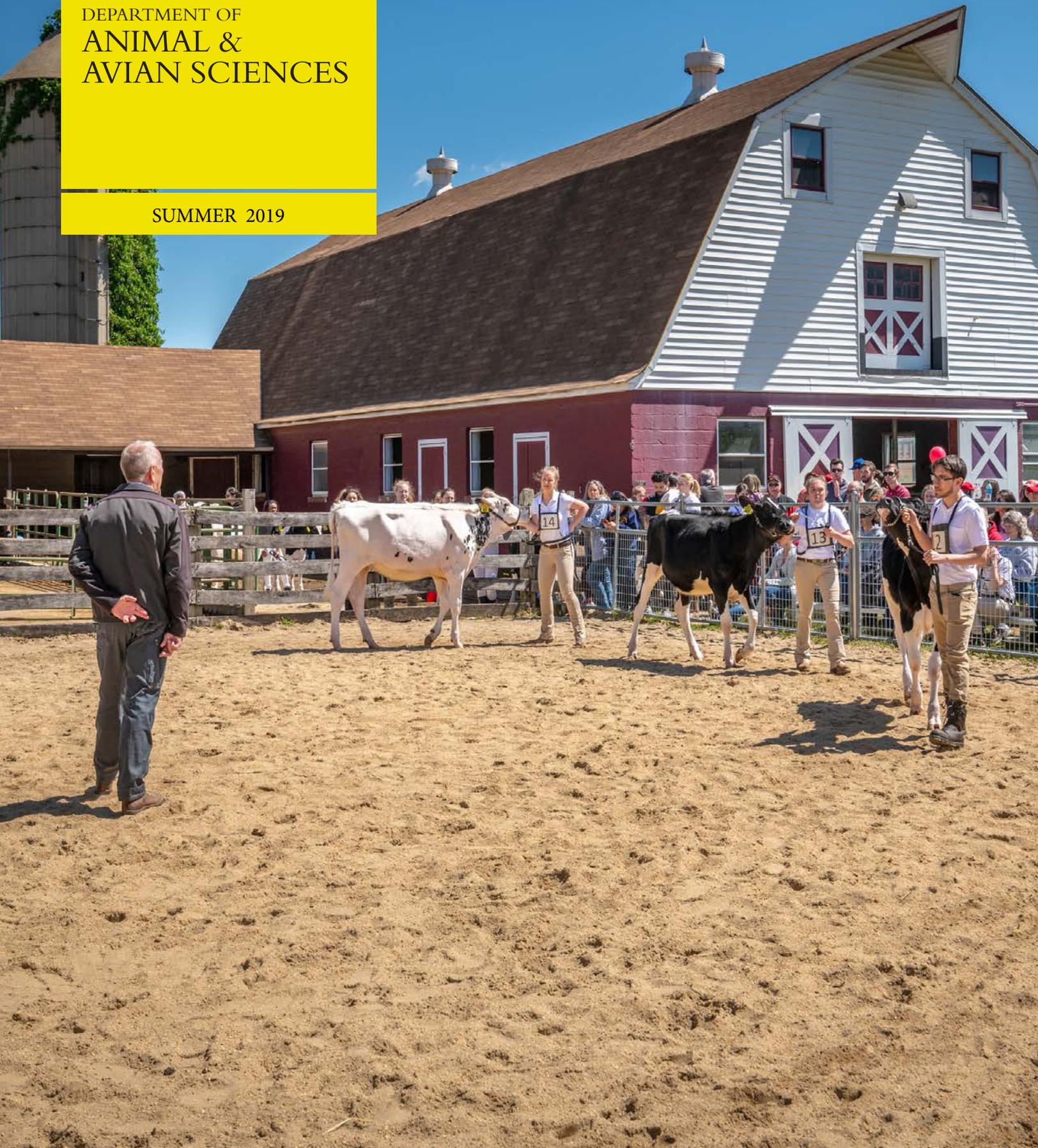




DEPARTMENT OF
ANIMAL &
AVIAN SCIENCES

SUMMER 2019

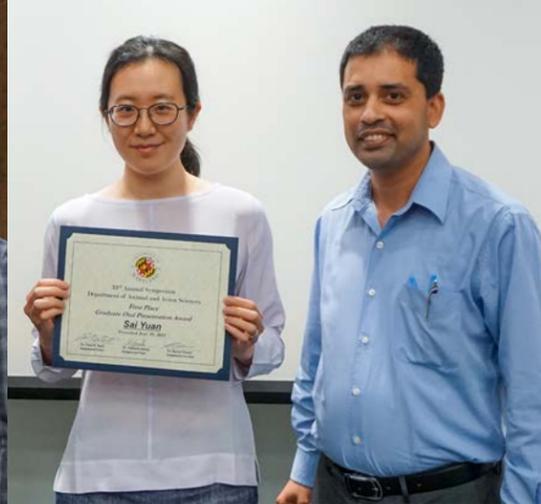




Dr. Stahl & Sohini Dutt



Dr. Crawford & Dr. Stahl



Sai Yuan & Dr. Sunny

ANSC Annual Symposium

The Department of Animal and Avian Sciences held the 33rd Annual Symposium on June 19, 2019.



Ronique Beckford & Dr. Sunny



Janice Barber & Dr. Stahl



Kristen Brady & Dr. Keefer

This full-day event showcased our department's ongoing research as presented by our graduate students and postdocs. The keynote speaker was Peter Crawford, M.D., Ph.D., Professor of Medicine and the Founding Director of the Division of Molecular Medicine at the University of Minnesota. Dr. Crawford's talk was entitled "Following ketone carbon through macrophages, landing in hepatic fibrogenesis." Graduate students and postdocs competed throughout the day with posters and oral presentations. Many thanks to our speaker and the other guest judges: George Liu,

Zahidul Mondle, Jonathan Moyle, and Monika Proszkowiec-Weglaz. Here are this year's winners:
Outstanding Ph.D. Student
Kristen Brady
Staff Member of the Year
Janice Barber
Graduate Student Poster Award
First Place: Sohini Dutt
Second Place: Cynthia Scholte
Graduate Student Oral Presentation Award
First Place: Sai Yuan
Second Place: Ian Chambers

Research Assistant/Postdoc Poster Award
First Place: Ronique Beckford
Second Place: Tamara Korolnek
Research Assistant/Postdoc Oral Presentation Award
First Place: Ronique Beckford
Second Place: Tamara Korolnek
Shaffner Award for Research in Poultry
First Place: Ronique Beckford
Second Place: Chaitra Surugihalli



Abbi Santoni pictured with a blue duiker, the smallest species of antelope.



Nancy Huffman handing leaves to Ana, a Coquerel's Sifaka lemur.

TWO ANSC STUDENTS INTERN AT THE MARYLAND ZOO

During the spring semester Abbi Santoni and Nancy Huffman, students in Dr. Monica VanKlombenberg's ANSC359 internship course, got up close and personal with exotic animals during their internships at The Maryland Zoo in Baltimore.

May 2019 graduate Abbi Santoni served as a keeper intern in the Africa Barn, working with sitatungas, leopard tortoises, spur-thigh tortoises, African spoonbills, blue-bellied rollers, blue-winged teals, hadada ibises, hamerkops, red crested pochards, von der decken hornbills, waldrapp ibises, fulvous whistling ducks, spur-winged lapwings, blue duikers (featured in the picture), white storks, grey crowned cranes, and ground hornbills. She assisted the keepers with daily husbandry, such as cleaning, feeding, diet prep, and designing enrichment. She also developed her own project through the internship program at the zoo and UMD, where she studied the social behavior of the sitatunga, a type of African antelope, and applied that to their natural behaviors.

Nancy Huffman, a junior in ANSC, served as an intern for the Chimpanzee Forest and her daily responsibilities included preparing animal diets, assisting keepers in daily training sessions, working on new enrichment ideas, and helping maintain both the animal enclosures and keeper areas. The Chimp Forest features a troop of eleven chimpanzees, as well as three ring-tailed lemurs, two sifaka lemurs, 2 red-ruffed lemurs, 3 colobus monkeys, and a single Amur leopard. She also began a behavioral observation study on the zoo's female

Amur leopard, Sofiya. "I would perform daily observations of Sofiya, cataloging her stereotypic behaviors (most notably excessive pacing around her exhibit) and theorizing possible causes. At the end of the semester, I helped the keepers implement a new care-taking schedule for her, to provide more opportunities for training and enrichment throughout the day, and hopefully improve Sofiya's long-term welfare." Overall, both students had excellent and enjoyable internship experiences at The Maryland Zoo. Ms. Santorini reflected on her time there: "I enjoyed the unique experience of working with zoo animals and seeing what actually goes into zoo keeping. The keepers were great teachers and gave me many opportunities to gain the most from my experience. It was a very friendly and supportive atmosphere that allowed me to make the most of the internship."





1 Trey Maybury and Dr. Monica VanKlompberg present the Clark Memorial Herdsmanship Award to Allie Agate (middle)

2 Dr. Tom Hartsock judging Shelby Presley and Tabitha Gregory during the swine show.

3 (Left to Right) Judge Jeff Semler, Grand Champion Allie Agate, Judges Jeff Myers & Dr. Tom Hartsock.

4 A fine line of dairy heifers & their showmen.

5 (Left to Right) Champion showmen Tabitha Gregory, Claire Shields, Sarah Ibach, & Grand Champion Allie Agate.

Ag Day Livestock Show Results

Grand Champion: Allie Agate



Swine

Tabitha Gregory, Champion

- Class 1:**
1. Esther Martinez Garcia
 2. Jenny Thornley
 3. Elsibel Espinal

- Class 2:**
1. Tabitha Gregory
 2. Shelby Presley
 3. Becky Schulze

- Class 3:**
1. Kelsey Miller
 2. Andrea Block
 3. Emily Clark



Sheep

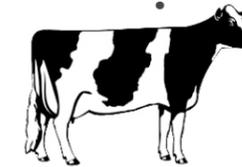
Sarah Ibach, Champion

- Class 1:**
1. Eleanor Downey
 2. Liz Johnson
 3. Sydney Weaver
 4. Andrea Wilson
 5. Rachele Franceschi

- Class 2:**
1. Sarah Lenhart
 2. Kelsey Nelson
 3. Kelsey Miller
 4. Leah Fondelheit
 5. Abbie Sise

- Class 3:**
1. Sarah Ibach
 2. Alyssa Larsen
 3. Elsibel Espinal
 4. Anniak Quist
 5. Annemarie Gray
- Class 4:**
1. Esther Martinez Garcia
 2. Allison Hatfield
 3. Ashley Houser
 4. Elsibel Espinal

- Class 5:**
1. Listya Suryani – 1
 2. Ivy Lewis - 2
 3. Kaylin Corgan - 3
 4. Daniela Gil - 4



Dairy

Claire Shields, Champion

- Class 1:**
1. Tiffany Thompson
 2. Amanda Retallack
 3. Lydia Cairns
 4. Megan Mihalik
- Class 2:**
1. Claire Shields
 2. Shelby Bettencourt
 3. Stephanie Filho
 4. Shelby Presley

- Class 3:**
1. Brooke Knauss
 2. Caitlyn Ryan
 3. Rachele Franceschi
- Class 4:**
1. Kevin Cooley
 2. Shana Burke
 3. Rachel Rha
 4. Kelsey Nelson

- Class 5:**
1. Savannah Carlson
 2. Liz Johnson
 3. Isabella Carr
 4. Nadia Khan
- Class 6:**
1. Jakia Powell
 2. Cristina Manganelli
 3. Eleanor Ovalle



Beef

Allie Agate, Champion

- Class 1:**
1. Allie Agate - 1
 2. Shana Burke - 2
- Class 2:**
1. Caroline Beall - 1
 2. Jasmine Richman
 3. Kyle Pope

Maryland Day Recap 2019

This year, it was blustery and sunny for the Livestock Show held on April 28 as part of the campus-wide Maryland Day. Grand Champion Showman and winner of the Chad Dulin Clark Memorial Herdsmanship Award was Allie Agate. Congradualtions to her and all the other winners. Many thanks to all who competed, the sponsors, judges, coaches, and all the others who helped to make the Livestock Show a success.

Chad Dulin Clark Memorial Herdsmanship Award: Allie Agate

Student Coaches: Swine: Kaitlyn Smith and Caroline Beall | **Sheep:** Adrianna Sniezek, Deena Silton, and Scott Klug
Dairy: Allie Agate, Paola Martinez and Gabby Rowan | **Beef:** Sarah King and Lindsay Jacobs
Judges: Swine: Dr. Tom Hartsock, Sheep: Jeff Semler, Dairy: Jeff Myers, & Beef: Jeff Semler
Faculty/Staff Coaches: Jennifer Reynolds, Megan McLean, Crystal Caldwell & Dr. Monica VanKlompberg
Announcer: Jen Reynolds **Club Advisors:** Racheal Slattery & Dr. Monica VanKlompberg
Sponsors: Southern Maryland Agricultural Development Commission (SMADC)



Sarah Balcom Wins Woodrow Wilson Foundation Excellence in Teaching Fellowship

ANSC Professor Sarah Balcom received a \$20,000 Excellence in Teaching Fellowship from Course Hero & the Woodrow Wilson Foundation. This program provides “Genius Grants” to Tenure-Track and Non-Tenure-Track Faculty to recognize, promote outstanding teaching. As a non-tenure-track Fellow, Sarah will receive a one-year grant of \$20,000 to strengthen her teaching and support research and conference participation.

The Fellowship, created by Course Hero and administered by the Woodrow Wilson Foundation, is a “genius grant” for outstanding teachers in higher education. “This fellowship highlights college educators who are using innovative, forward-thinking methods to teach their students,” said Andrew Grauer, cofounder and CEO of Course Hero. “This year’s class epitomizes excellence in teaching. Fellows are pushing the boundaries in lecture halls and labs, coming up with new ways to engage learners and crafting lessons for students that will stay with them long after they’ve left the classroom. We are proud to recognize these outstanding leaders as Course Hero–Woodrow Wilson Fellows.”

For non-tenure-track instructors, the fellowship supports an overall commitment to excellence in teaching. The flexible one-year, \$20,000 grant supports teaching, research, and conference participation. Sarah Balcom, Jason Bruck, Ekaterina Elgayeva, and Subhalakshmi Nagarajan make up the 2019 non-tenure-track class.

“The Woodrow Wilson team is delighted to be able to offer this kind of support to the fellows. They’re emerging faculty stars,” said Beverly Sanford, vice president and secretary of the Foundation. The newest Course Hero–Woodrow Wilson Fellows, already great college educators, are emerging leaders in their fields who are on a clear trajectory to help their students grow into the thought leaders—and innovators—of tomorrow.

For more information on the Course Hero–Woodrow Wilson Fellowship, please visit www.woodrow.org/coursehero.



Dr. VanKlompberg Wins AGNR On-campus Professional Track Faculty Excellence Award

Dr. Monica VanKlompberg was awarded the On-campus Professional Track Faculty Excellence Award on Wednesday, May 15th at the 2019 State of the College Awards & Service Recognition Ceremony.

Dr. VanKlompberg joined the department of Animal and Avian Sciences (ANSC) as a lecturer in August 2016 and has continually gone above and beyond expectations of her teaching load to expand the opportunities for experiential learning and career development for students. Over the last six semesters, Monica has developed or substantially redesigned eight courses and has demonstrated a profound commitment to excellence in teaching. In designing and delivering these courses, she has focused on student-centered learning approaches with elements of active learning. Most notably, she has redeveloped the Applied Animal Physiology Lecture and Lab which are foundational courses in ANSC’s curriculum. In addition to her teaching and academic advising, Monica has sought to improve the undergraduate experience for ANSC students. In July 2017 she led the organization and hosting of the National Animal Science Academic Quadrathlon working with the American Society of Animal Science. She also serves as the advisor to the Block and Brindle Club (B&B), where she has helped the club rebuild. Monica is truly an asset to ANSC’s students, rising above the call of duty in many ways.

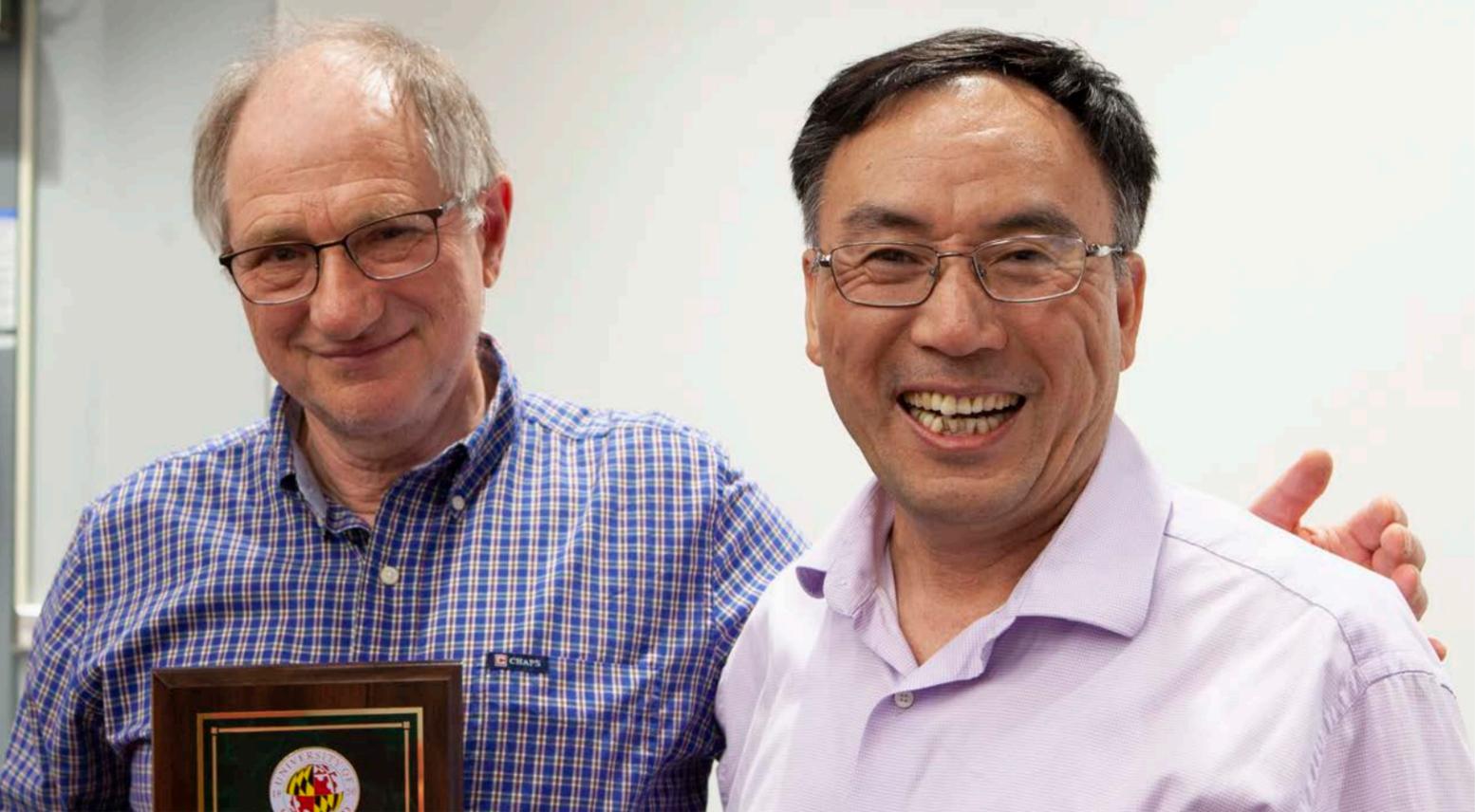
Another NIFA Grant for Dr. Porter



Dr. Porter and colleagues were awarded a fourth grant in the past three years from the USDA-NIFA for their proposal titled “Molecular Basis for Egg Production Rates in Turkey Hens”.

Meat production is the primary goal of the turkey industry and requires production of young turkeys (poults) from eggs laid by the breeding flock. However, a large variation in egg production exists within individual commercial flocks, leading to reduced overall egg production. Improvement of the reproductive efficiency of hens would eliminate the need to house and feed additional breeding hens to meet poultry production requirements. Reproduction in turkeys is controlled in part by hormones produced by the hypothalamus, the anterior pituitary gland, and the

ovary. A better understanding of the mechanisms regulating production of these hormones is essential to develop new strategies aimed at improving reproduction in turkeys. The specific objectives of the project are to 1) Define the influences of estrogen and thyroid hormone on responsiveness of the pituitary gland to hypothalamic hormones in low and high egg producing hens, 2) Characterize effects of estrogen and thyroid hormone on responsiveness of ovarian tissues to pituitary hormones, and 3) Identify proteins and nucleic acids that regulate important genes within the reproductive axis of low and high egg producing hens. Completion of this research will lead to the identification of new information that can be used in breeding programs and the poultry industry to produce more food for the growing world’s population.



2019 LeClerc Lecture in Biometrics

On April 18 in the ANSC lecture hall, Dr Ignacy Mitztal from University of Georgia presented his talk entitled, "Genetics and genomics across species – past, present and thoughts about future." Dr. Mesztal is a well-known researcher in the field of statistical genetics. He directs a group working mainly on tools for large-scale genetic evaluation of animals and partners with the biggest genetic companies in the world. His primary areas of research are in genomic selection and algorithm development of complex traits in livestock animals including dairy, beef, poultry, swine and fish.



Dr. Erdman Elected Vice President of American Dairy Science Association Board of Directors

On June 26th 2019, Dr. Richard Erdman, Professor Emeritus, took over the role of Vice President of the Board of Directors of the American Dairy Science Association (ASDA). Next year he will sit as President of the organization.

The American Dairy Science Association is an international organization of educators, scientists, and industry representatives who are committed to advancing the dairy industry and keenly aware of the vital role the dairy sciences play in fulfilling the economic, nutritive, and health requirements of the world's population. Together, ADSA members have discovered new methods and technologies that have revolutionized the dairy industry.

GRADUATE SCHOOL'S OUTSTANDING RESEARCH ASSISTANT AWARD

ANSC graduate student Chaitra Surugihalli in Dr. Nishanth Sunny's lab was recognized with one of the Graduate School's Outstanding Research Assistants Awards (AY 2018-19) at the Graduate School's Annual Fellowship and Award Celebration on May 14, 2019. Chaitra has been a doctoral student in Dr. Nishanth Sunny's laboratory since Spring 2018. This award is a testimony to Chaitra's excellent progress and contributions towards the research program, investigating mechanisms regulating mitochondrial metabolism and lipogenesis in embryonic to post-hatch chicken.



MADER WINS FIRST PLACE IN UNDERGRADUATE DAIRY PRODUCTION ORAL COMPETITION AT ADSA

The 2019 Annual Meeting of the American Dairy Science Association (ADSA) was held June 23-26 in Cincinnati, Ohio and attended by ANSC students Hannah Mader, Rachael Rha, graduate student Amanda Fischer, and ANSC alum, Dr. Cynthia Scholte.



Hannah Mader received first prize in the American Dairy Science Association-Student Affiliate Division Undergraduate Dairy Production Oral Competition. Competing against five other contestants, the title of her talk was: Immune response to Escherichia coli-induced bovine mastitis in lactating dairy cows (co-authors of the paper were C. Scholte, D. Biswas, and K. Moyes). The focus of their study was to test citral, a major component of citrus oil, against E. Coli induced mastitis. Her presentation covered all aspects of the study, sampling, analysis and background information regarding the need for alternatives, the use of citrus oil and the basic immune response. "The immune response was my main focus in my research, specifically acute phase protein and cytokines concentrations." Hannah is a May 2019 graduate of ANSC. She has been accepted at Virginia-Maryland Regional College of Veterinary Medicine and will be matriculating at Virginia Tech this fall. While at UMD she worked in Dr. Moyes' lab on dairy nutritional immunology.



DR. PETERS AWARDED ARPAS DISTINGUISHED SERVICE AWARD

Dr. Robert Peters received the 2019 Washington D.C. Area Chapter American Registry of Professional Animal Scientists (ARPAS) Dr. Vernon G. Pursel Memorial Distinguished Service Award. The award was presented by Dr. Ciro Ruiz-Feria, Area Chapter ARPAS President, at the 2019 ARPAS MINI-SYMPOSIUM on April 24, 2019, held at USDA Beltsville Agricultural Research Center.



DR. PORTER RECEIVES GOLDEN ALUMNI AWARD

The Department of Animal Science at the University of Minnesota awarded Dr. Tom Porter with the Golden Alumni Award for Achievement in Academia. The Golden Alumni Award recognizes an alumnus from academia that has achieved distinction in their professional life for their outstanding contributions to animal agriculture and exceptional service to their respective fields.



GRADUATION

Congratulations to the ANSC Spring 2019 Graduates

The College of Agricultural and Natural Resources ceremony was held on May 23, 2019 at the Reckord Armory. The University ceremony was held on May 24th, 2019 at the Xfinity Center.

ANSC Graduate Students

Kristina Davis, MS
 Jianan Liu, MS
 Kristen Brady, Ph.D.
 Marie Iwaniuk, Ph.D.
 Sarah Potts, Ph.D.
 Cynthia Scholte, Ph.D.
 Timothy Sheets, Ph.D.
 Sai Yuan, Ph.D.

ANSC Undergraduates

Katherine Lynn Aceto
 Yael Ad
 Jocelyn Alvarenga
 Stacey Rachel Bloom
 Meghan Victoria Bowman
 Tess McGrath Butler-Lapointe
 Lydia Halina Cairns
 Melissa Canaviri
 Angela Hean-Jia Chan
 Lindsey Daniel Charles
 Savannah Clough
 Katherine Marie Collins
 Arianna Tuazon Concepcion

Nicole A Cox
 Alaina Kristen Doherty
 Caroline Dwivedi
 Christopher Julian Edwards
 Cheyenne Lyn Eller
 Jack William Fergenbaum
 Jacob Joseph Franzak
 Hannah Paige Frydman
 William Marcos Garcia
 Erica Marie Greene
 Tabitha Mozelle Gregory
 Meera Gullapalli
 Kelly Hurtado
 Kimani L Johnson-Downes
 Hary Kang
 Aliza Vered Kozlovsky
 Jade Carley Loewenstein
 Hannah Marie Mader
 Anna Katherine Magnaterra
 Josiah David Evans Manning
 Maura Sophia McGraw
 Erika Asako Means
 Nathan Edward Meier
 Megan Elizabeth Mihalik

Jalinh Nguyen
 Katherine Claire O'Connor
 Allison Paige Opishinski
 Amanda Leigh Retallack
 Rachel Youngah Rha
 Miranda Hope Rosen
 Abigail Leigh Santoni
 Kimberly Grace Shannahan
 Claire Marie Shields
 Nicole Akki Singh
 Adrianna Ariel Sniezek
 Cory Lee Snyder
 Zoey Stump
 Camilla Carmo Thompson
 Tiffany Marie Thompson
 Jenny Lynn Thornley
 Laura C Tompkins
 Kaitlyn Savannah Torney
 Keri Lauren Walker
 Jade Christal Walls
 Claire Shirin Witting
 Alexis Antonio Yanes
 Emma Caroline Youngmann