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, Zahid Mondle, Jonathan Moyle, and Monika Proskowiec-Weglarz.

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

**ANSC Annual Symposium**

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

**TWO ANSC STUDENTS INTERN AT THE MARYLAND ZOO**

During the spring semester Abbi Santoni and Nancy Huffman, students in Dr.Monica VanKlompenberg’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 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, hammerkops, 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 namely 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.”

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

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

**ANSC Students and Faculty**

Dr. Stahl & Sohini Dutt
Dr. Crawford & Dr. Stahl
Sai Yuan & Dr. Sunny

Ronique Beckford & Dr. Sunny
Janice Barber & Dr. Stahl
Kristen Brady & Dr. Keefer

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
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. Congratulations 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.

Swine
Tabitha Gregory, Champion

Sheep
Sarah Ibach, Champion

Dairy
Claire Shields, Champion

Beef
Allie Agate, Champion
Class 1: 1. Allie Agate - 1 2. Shana Burke - 2

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 VanKlompenberg
Announcer: Jen Reynolds Club Advisors: Racheal Slattery & Dr. Monica VanKlompenberg
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 Elgaveva, and Subhalakshmi Nagarajan make up the 2019 non-tenure-track class.

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

Dr. Monica VanKloppenborg 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. VanKloppenborg 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.

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. Improvements 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 LeClerg 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. Mitztal 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 genome 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.

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.

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. 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.
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 Shannahnan
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