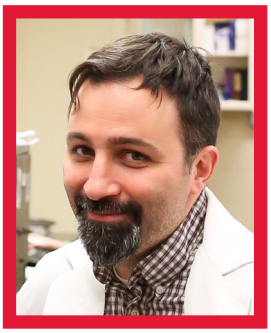
Animal Science Update

The Department of Animal Sciences

Newsletter 2024-2025



Chair's Message

Nick Bello, Ph.D., Chair

Welcome to the 2024-2025 edition of the *Animal Science Update*! This was my second year serving as Department Chair. I cannot express how very honored and grateful I am to be Chair of such an amazing department. Over the last year, we've had some notable faculty retirements and some exciting new faculty and staff additions. Our faculty continue to be leaders in teaching and research, but most impressive is how our students continue to excel and demonstrate their high potential to be future leaders in animal science.

Faculty Updates. **Dr. Mike Westendorf** (*top right, see article on page 11*), Extension Specialist and Professor, retired on December 31, 2024, after 31 years of service to Rutgers. Mike was a long time instructor of "Production Animal Management" (11:067:336) and "Animal Evaluation and Selection" (11:067:260). I will miss our regular ongoing (and mutual) disapproving conversations about imitation meat products. As we both agree, there is no substitution for USDA prime grade beef. I wish Mike all the best in his retirement. **Dr. Karyn Malinowski** (*center right, see article on page 11*), Founding Director of the Rutgers Equine Science Center and Extension Specialist and Professor, retired on June 30, 2025, after 47 years as faculty at Rutgers (*read more on page 11*). Founded in 2001 under the principles of "Better Horse Care through Research and Education," the Rutgers Equine Science Center had an immense impact on the New Jersey horse industry and equine sciences. Karyn always had entertaining stories about the Cook College days and, of course, Lord Nelson. I will miss working with Karyn.

On January 1, 2025, **Dr. Wendie Cohick** (*bottom right*) started her new role as Vice Provost for Research for Rutgers–New Brunswick. From 2020 to 2024, Wendie was Dean of Research and Graduate Education, Director of Research for the New Jersey Agricultural Experiment Station, and Interim Director of the Institute for Food, Nutrition, and Health at SEBS. Wendie still maintains her strong departmental connections, continues to have an active research program, and mentors graduate and undergraduate students from Animal Sciences. On July 1, 2025, **Dr. Aparna Zama** (*top left*) was promoted to Teaching Professor. Aparna's notable accomplishments were her leadership roles in her USDA funded NextGen Animal Science Discovery (ANSCId) and RU-VETLEAP programs and her excellence as Undergraduate Program Director. Congratulations, Aparna, for this well-deserved promotion. For the fall semester, **Dr. Ken McKeever** (*center left*) will begin a sabbatical semester. Ken will be back to teaching and research in Spring 2026.

We are also excited to welcome our newest Teaching Instructor, **Dr. Tobi Ogunribido** (*right*), who started March 3, 2025, to the department. Tobi received his Ph.D. from Purdue University in 2024. His thesis was entitled "Regulation of growth and nutrient digestibility by supplemental myo-inositol and luteolin in pigs and chickens." Tobi began teaching Animal Science classes in Summer 2025. Welcome to the RU family, Tobi!

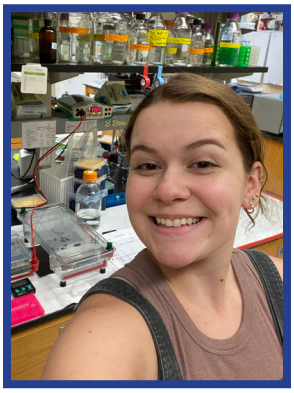
Staff Updates. In our Animal Sciences Business Office, **Khushboo Bajaj** moved to the Center for Advanced Infrastructure and Transportation at School of Engineering. We thank her for her service to our department as we welcome our new Business Specialist Supervisor, **Shruti Joshi** *(bottom left)*.

Undergraduate Program News

Aparna Zama, Ph.D., Undergraduate Program Director

It has been a very busy academic year. We have been lucky to be awarded the new USDA NIFA RU-VETLEAP grant alongside the NEXTGEN grant: you can see the updates below! Also, we have had a stellar year with our G. H. Cook Scholars Program, the RU-VETLEAP/MSP Scholars Program, and placing students into the USDA NEXTGEN Office of Research-CMR internships and Rowan veterinary school faculty research internships. In addition, the launch of the Animal Welfare Judging Team has been a great step forward. We are calling all alumni to participate in a mentoring program for the current Animal Science students; if you are interested, please complete the form by clicking on this link or scanning the QR code on the right. I hope to see you all in one way or the other soon.

Departmental Senior Awards. These endowed awards are presented to seniors in recognition of excellence in academics, research, and/or service to the Animal Sciences Department, SEBS, and Rutgers. Learn more about the 2025 recipients.



Megan Gilmore (*top right;* Academic, Research, and Service Award) was a member of the Douglass Residential College and an active member of the Rutgers University Veterinary Science Club, where she held the vice president role in 2023-2024. She performed research in Dr. Elizabeth Snyder's laboratory and studied how dietary amino acids impact male fertility, which was her G. H. Cook Scholars thesis. She also worked as a veterinary assistant at Raritan Animal Hospital. Outside of the world of veterinary medicine and education, Megan enjoys baking, crafting, and traveling. She will be attending the University of Pennsylvania School of Veterinary Medicine this fall, with a goal of becoming a general practitioner for various animal species.

Julia DeLucca (*bottom right;* Academic and Research Award) was a first-generation student and her Rutgers journey had been enriched by diverse experiences, from volunteering with Rutgers Alternative Breaks to assist the D.C. homeless community, to embarking on a transformative study abroad program in Belize, where she immersed herself in the study of native large animals. She also actively sought research opportunities, contributing to the innovative work in the Pink Lab under Professor Troy Roepke and participating in a George H. Cook research project. These experiences have solidified her passion for animal care and research, fueling her post-graduation goals of pursuing a D.V.M. degree and ultimately becoming a licensed veterinarian in the United States, dedicated to the health and well-being of animals.

Daniel Caramico (*top left;* Academic, Research, and Service Award) was a member of the agricultural and service fraternity of Alpha Zeta, as well as activities coordinator for the Veterinary Science Club. He has worked as a Scarlet Ambassador, a role that fostered a feeling of fulfillment by giving back to prospective students that were once in his position. Daniel also worked as a line cook at the Douglass Student Center. He cherished his time in the Roepke Lab as well as being a teaching assistant for animal science classes. Some fun facts are he can juggle, he loves his Doberman, and he can skateboard. Daniel will be heading to The Ohio State University to pursue his D.V.M.

Daphne Lau (*bottom left;* Academic and Service Award) served as the vice president of the Veterinary Science Club and was a teaching assistant for "Animal Reproduction" (11:067:327). She has been at the same clinic for about seven years, starting as a volunteer and eventually becoming a technician. As an undergraduate student, she had the opportunity to work closely with a veterinary oncologist and did research under her guidance. In Fall 2024, Daphne had the honor of presenting her research on the most common botanicals that downregulate pathways in canine osteosarcoma at Chi University in Florida. She will be joining North Carolina State University College of Veterinary Medicine's Class of 2029 and is considering specializing in either surgery or oncology but is excited to explore her options. In her free time, she loves thrifting, trying new restaurants and cafes, and going to the gym.

Crystal Johnson (*top right;* Academic Award) transferred to Rutgers in 2021 from Camden County College and quickly found the most amazing community through the Veterinary Science Club. She gained invaluable hands-on experiences through such classes as "Cattle Practicum" (11:067:201) and helped many students succeed through her role as a teaching assistant for "Animal Nutrition" (11:067:330). Crystal has worked part-time as a veterinary technician for the past eight years, and she paints pet portraits as a side gig. When not studying or working, she enjoys gardening, watching horror movies, and learning new cooking recipes. She will be attending the University of Pennsylvania School of Veterinary Medicine in fall and plans on becoming a veterinary pathologist.

Sarah Van Name (*bottom right;* Academic and Service Award) served as the activities coordinator for the Rutgers Veterinary Science Club for three years. After taking the swine section of "Animal Handling, Fitting, and Exhibition" (11:067:175), she took the supervisor course (11:067:176) and acted as the swine show's MC for Rutgers Day. She works at her local veterinary clinic, as well as volunteers at a therapeutic horse riding stable. Sarah plans on working at her local zoo and emergency veterinary hospital, expanding her experience before applying to vet school. Her favorite animals to work with on the Rutgers Farm were the pigs.

Dr. Rex L. Gilbreath Memorial Award. This award was established in memory of Dr. Gilbreath, former Associate Professor of Animal Sciences, Alpha Zeta Professor of the Year, and researcher in the field of swine nutrition. The 2025 recipient, Nicole Ficken, spent two years as a swine supervisor as well as a semester with the veterinary and husbandry staff in the animal research facilities. Additionally, she spent three years studying retinoids in Dr. Igor Shmarakov's lab. She has participated in the Summer Undergraduate Research Fellowship (SURF) Program and the G. H. Cook Scholars Program, where she researched the protective role of retinoids during ozone-induced lung inflammation. After graduation, Nicole plans on taking a gap year to continue working in veterinary medicine and will eventually apply to veterinary school.

Rutgers Awarded $250,000 USDA NIFA Grant to Prepare Students for Vet School

Office of Public Outreach and Communication

Just over a year after being awarded funding through the NextGen grant for the Animal Science Discovery Program, Aparna Zama, Undergraduate Program Director in the Department of Animal Sciences, has secured a five-year $250,000 U.S. Department of Agriculture, National Institute of Food and Agriculture (USDA-NIFA) Higher Education Multicultural Scholars Program (MSP) grant for the Rutgers University Veterinary Learning and Preparation program (RU-VETLEAP).

RU-VETLEAP is designed to increase the number of Animal Science students from underrepresented communities accepted into D.V.M. programs and those entering careers in USDA mission-critical areas of food, agriculture, and human and animal health. Rutgers was one of five 2024 grant awardees to share in NIFA's $1.1M investment by the Higher Education Multicultural Scholars Program to support 30 undergraduate students in animal science, nutrition and dietetics, food science, agribusiness, and other related science disciplines. The other awardees include Arizona Board of Regents at the University of Arizona, Division of Agriculture of the University of Arkansas System, Idaho State University, and University of Florida.

The RU-VETLEAP Program will provide tutoring, mentorship, experiential learning, research, and study abroad opportunities over the baccalaureate timeline along with structured summer semesters, allowing students to integrate their academic and experiential learning seamlessly. Zama, a teaching professor in the Department of Animal Sciences and principal investigator on the grant, found that students with high employment hours were less likely to be accepted into vet school. As a result, a select number of students among this cohort will receive monetary assistance for RU-VETLEAP activities, allowing them to participate without having to balance a job with their studies. "This program not only aspires to bridge the educational gap for underrepresented communities but also equips them to be competitive in the global veterinary field," said Zama.

USDA-NIFA's Higher Education Multicultural Scholars Program provides competitive grants to colleges and universities to increase the diversity of the food and agricultural workforce. The program provides scholarships to support mentoring, scientific training, and professional development activities for students who are pursuing a bachelor's degree in the Food, Agriculture, Natural Resources, and Human (FANH) sciences or a Doctor of Veterinary Medicine (D.V.M.) degree.

Meet the MSP Scholars. Students who applied to the RU-VETLEAP program had to be Animal Science majors on the Preveterinary Medicine and Research, Lab Animal Science, or Equine and Production Animal Science track. They had to submit an essay describing how their journey in Animal Science, along with their personal experiences and financial circumstances, have shaped their goals as well as how a Rutgers education will help them achieve these goals, and how they plan to contribute to the field of Animal Science, Veterinary Medicine, and their communities. Five students on the Preveterinary Medicine and Research track were selected to be supported by the RU-VETLEAP program as MSP Scholars.

Courtney Chin (SEBS 2028; *left)* is part of the Veterinary Science Club, Companion Animal Club, and SEBS Governing Council, where she served as one of the Animal Science Major Representatives. She has had the opportunity to gain more hands-on experience with animals on the Rutgers Farm, specifically with swine and cattle. This summer, a RU-VETLEAP scholarship allowed her to study abroad in Belize through the Wildlife Health, Ecology and Conservation program. Outside of academics, Courtney enjoys photography, watching movies, and spending time with her two dogs. She hopes to explore different fields of veterinary medicine throughout her four years of undergrad, and attend veterinary school after graduation, eventually working as a veterinarian.

Cierra Edwards (SEBS 2028; *right*) is in the Rutgers Seeing Eye Puppy Raising Club. To gain as much experiential learning as possible, this summer she worked at an animal clinic and a research lab and plans to take classes on the Rutgers Farm during the fall semester. After graduation, she hopes to go to veterinary school and become a small animal veterinarian, but she is also interested in wildlife and marine medicine. In her free time, she likes watching movies and rating them on the social platform Letterboxd as well as reading and traveling.

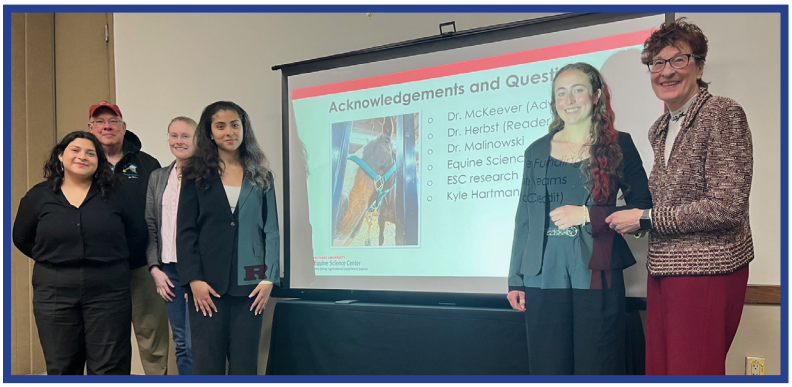
Kylie Labbe (SEBS 2028; *left*) is a member of the Society of Animal Science and Rutgers University Veterinary Science Club. Since starting in the fall, one academic highlight was presenting in front of Animal Science faculty during the Endocrinology and Animal Biosciences Seminar Series in preparation for her official presentation at the Northeast Student Affiliate (NESA) at Penn State. Kylie's goal after graduation is to go to veterinary school to become a food or mixed animal veterinarian, possibly serving in areas with veterinarian shortages. This summer, she participated in the CELA Belize study abroad program and shadowed at a local veterinary clinic and at a wildlife refuge. Outside of academics, she enjoys spending time with her dog, crocheting, photography, and reading.

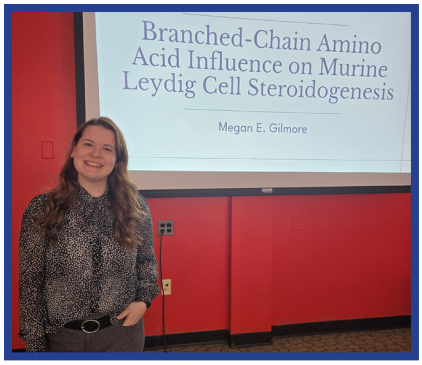
Santiago Mesa Botero (SEBS 2027; *right*) is a first-generation Colombian student active in the Minorities in Agriculture Natural Resources and Related Sciences Club (MANRRS) and the Colombian American Student Association (CASA). He served as the MANRRS treasurer his sophomore year and was a super-visor for the sheep section of "Animal Handling, Fitting, and Exhibition" (11:067:175) in Spring 2024. Santiago has been involved on the Rutgers Farm as a student and work-study student and with the Office for Research, where he has developed a strong interest in laboratory animal care and medicine. He aims to achieve his master's degree in laboratory animal science and pursue a career in veterinary medicine as a lab animal veterinarian.

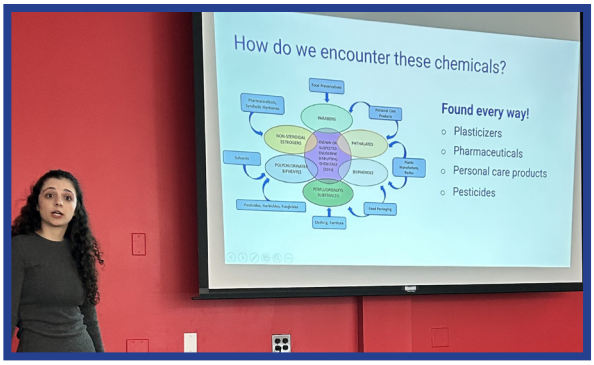
Kailah Pyron (SEBS 2027; *left*) has a strong passion for animal health and conservation. This past spring, she served as a teaching assistant for "Animal Reproduction" (11:067:327). In addition to her teaching role, she contributes to research in an endocrinology lab, gaining valuable experience in hormonal studies. Recently, she began working as a veterinary assistant at a North Jersey veterinary hospital, where she continues to develop her clinical skills. Her ultimate goal is to become a veterinarian specializing in wildlife medicine, combining her academic background, research experience, and hands-on training to protect and care for wild animals. A fun fact about her: she's had 10 pets throughout her childhood, ranging from turtles and hermit crabs to bunnies and guinea pigs.

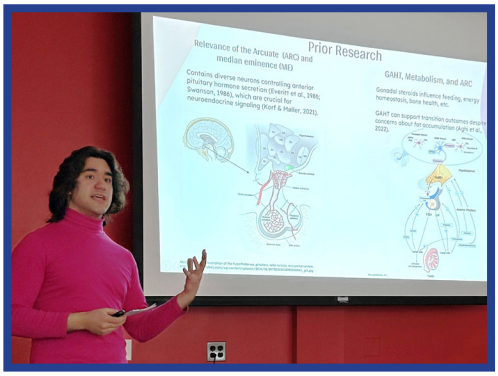
George H. Cook Scholars Program. The following seniors have completed their honors theses and have graduated as George H. Cook Scholars, Class of 2025 (their advisors are listed in parentheses). They presented their research at the Honors Thesis Symposium on April 11, 2025, at the Cook Student Center.

- **Michaela Ashworth** (Bello): "Comparing Polydipsic Behavior in C3H and C57Bl/6J Mouse Strains"
- **Saribel Barrientos** (McKeever): "Enhancing Equine Performance: Investigating the Impact of Ostarine on Muscle Mass in Horses through Multiple Assessment Methods"
- **Daniel Caramico** (Roepke): "The Transcriptome of the Hypothalamus from a Preclinical Model of Gender-Affirming Hormone Therapy"
- **Julia DeLucca** (Roepke): "The Behavioral Effects of Perinatal OPFR Treatment and Acute Stress on Adult Offspring"
- **Nicole Ficken** (Shmarakov): "Exploring the Role of Retnoids in Protecting the Lungs Against Ozone Exposure"
- **Megan Gilmore** (Snyder): "Branched-Chain Amino Acid Influence on Murine Leydig Cell Testosterone Production"
- **Angely P. Morocho** (McKeever): "Assessing the Impact of Ostarine on Body Composition in Adult Horses: A Longitudinal Study"
- **Gilana Rincon** (Roepke): "Hypothalamic Gene Expression in Female Rats Exposed to Bisphenol A During Puberty"
- **Lada Terushkin** (Shmarakov): "Assessment of the Role of the RBP4-STRA6 Pathway in Acute Lung Injury"
- **Sarah Paladino** (Roepke): "The Influence of Chronic Stress on the Excitability of CRH Neurons of the Oval BNST in Mice"
- **Sarah Van Name** (Roepke): "The Effects of Chronic Stress on Avoidance Behaviors in an ERx Knockout Mouse"









Top, left to right: *Gilana Rincon; Angely Morocho, Dr. Kenneth H. McKeever, Dr. Alisa Herbst, Saribel Barrientos, Claire Nealon, Dr. Karyn Malinowski.*

Center, left to right: *Megan Gilmore; Julia DeLucca; Lada Terushkin, Dr. Igor Shmarakov, Nicole Ficken.*

Bottom, left to right: *Sarah Van Name; Daniel Caramico.*

New Companion Animal Nutrition Course for Fall 2025

"Companion Animal Nutrition" (11:067:389) will be taught this fall, the third nutrition course, after "Animal Nutrition" (11:067:330) and "Equine Nutrition" (11:067:390), offered by the Department of Animal Sciences. "Companion Animal Nutrition" provides a comprehensive examination of the principles and application of nutrition in companion animals, with primary focus on dogs and cats. Students will explore dietary strategies for different life stages, including growth, maintenance, reproduction, and aging as well as specialized nutrition for clinical conditions such as obesity, diabetes, renal disease, and food allergies. The course will also address pet food formulation, ingredient selection, processing methods, and regulatory guidelines set by the Association of American Feed Control Officials (AAFCO) and the National Research Council (NRC).

NESA Competition 2025

Carey Williams, Ph.D., Equine Extension Specialist and Graduate Program Director

I would like to congratulate all of the Rutgers students who competed in the NESA (Northeast Student Affiliate of the American Society of Animal Science) competition at Pennsylvania State University on March 1. The competition consists of livestock judging (beef, dairy, horse, sheep, swine, and a surprise class), quiz bowl, and student presentations. There were nine schools competing, with a total of 33 teams of four students on each. Rutgers had three teams with four students on each team for a total of 12 students participating in the three phases of the competition. (See below for participating students; *indicates team presenters.) *(Pictured from left: Kylie Labbe, Julissa Medina, Xinling Ren, Sabrina Kim, Paula Chavez, Natalie Armstrong, Linda Sanchez, Brooke Mackie, Aishika Ghante, Dylann Cedeño, Rachel Halpern, Maddie Emmick, and advisors Dr. Williams [bottom left] and Dr. Ross [bottom right].)*

Team A: Paula Chavez, Aishika Ghante, Sabrina Kim, Linda Sanchez*
Team B: Natalie Armstrong, Rachel Halpern, Kylie Labbe*, Brooke Mackie
Team C: Dylann Cedeño, Maddie Emmick, Julissa Medina, Jessica Ren*

I am proud to report that Rutgers finished seventh out of nine competing schools; Team C finished fourth in the quiz bowl (to have a team in the FINAL FOUR is OUTSTANDING!) out of 33 teams; and Aishika Ghante was in a four way for seventh place, but because of the tiebreaker class, ended up 11th and therefore no ribbon. But out of the 132 students competing, this is extremely commendable!

I also want to thank my co-advisor Taylor Ross who really pushed the students to study and practice hard so that they could keep up with many of the more senior teams at the competition. We are off to UCONN in 2026, then everyone get ready…. RUTGERS is up to host in 2027!

Virtual AVMA Animal Welfare Assessment Contest

Sophia Maddocks, Ph.D. Student, Graduate Program in Endocrinology and Animal Biosciences

On April 26 and 27, several Rutgers Animal Science students, both undergraduate and graduate, competed in the annual spring online contest of Animal Welfare Judging and Assessment hosted by the AVMA. They were Animal Science undergraduate students Jacob Bazer, Aditri Singh, Angely Morocho, Laura Sarabando, and Courtney McCarroll, as well as Endocrinology and Animal Biosciences (EAB) graduate student Sophia Maddocks (*pictured on the next page*). The students were mentored by Dr. Taylor Ross (*middle left*), assisted by Sophia Maddocks (*front right*), and used the experiences from "Domestic Animal Behavior and Welfare" (11:067:310) taught by Dr. Ross to inform their evaluations of two scenarios: one involved gestating sows and the other involved cownose rays in zoo/aquarium touch tanks. Not only did the students evaluate these scenarios and give great reasons, they were also able to learn even more about both industries from leaders in each field.

Each student gave amazing sets of reasons and chose the correct scenario for each. In an awesome effort by the students, the team managed to win each category that Rutgers was entered into. Sophomore Aditri Singh (*back left*) won the Undergraduate Junior Division, while senior Laura Sarabando (*middle right*) won the Undergraduate Senior Division. Junior Jacob Bazer (*middle back*) placed third, senior Angely Morocho (*front left*) placed fifth, and junior Courtney McCarroll (*back right*) placed nineth.

First-year EAB Ph.D. student Sophia Maddocks won the Graduate Student Division. A special shoutout goes to Laura, who scored the highest in her set of reasons out of anyone in the contest in all categories.

Some of the students also attended the previous in-person competition at University of Wisconsin–River Falls in Fall 2024, with the team placing fifth overall in its inaugural competition. Aditri Singh placed second in the Undergraduate Senior Division, with Jacob Bazer placing 16th and Angely Morocho placing 21st out of a total of 60 contestants in that division.

We are extremely proud of all of our students and their success at the competition and are excited at the opportunity to continue growing the Welfare Judging Team. If you are interested in joining the team or supporting the team's competition at Texas A&M this fall, please contact Dr. Taylor Ross (t.ross@rutgers.edu). Go RU!

Experiential Learning Opportunities Expand with Rutgers CMR and Rowan Vet School Summer Internships

This summer, students gained valuable hands-on experience through internships at the Rutgers Office for Research Comparative Medicine Resources (CMR) and the Shreiber School of Veterinary Medicine (SSVM) at Rowan University.

The USDA NIFA NextGen Animal Science Discovery Program has partnered with CMR to provide paid internship opportunities on various Rutgers–New Brunswick campuses for sophomores and above who have an interest in biomedical research and/or lab animal science. The first wave of internships ran from March 24 to May 15. The summer session started June 9 and ran through August 1. The program focuses on four areas:

1. ***Animal husbandry:*** The student will gain hands-on exposure to the daily responsibilities of an animal care technician by observing and assisting with routine tasks.
2. ***Lab animal medicine:*** The student will shadow veterinary staff during routine health checks of animals to learn how to assess animal health concerns and identify treatment options.
3. ***Animal handling and techniques:*** The student will participate in hands-on training to learn humane and safe methods of working with rodents in the lab animal environment.
4. ***Animal operations and business practices:*** The student will participate in various tasks that are part of the overall animal facility operations and management to help them understand all aspects of an animal care program.

The SSVM internships at Rowan were unpaid and mostly hybrid with in-person and remote components. They ran from June to August, with exact dates varying between projects. Students were matched with one of four projects:

1. "Molecular Detection of Canine Heartworm in Urban Wildlife and Mosquito Vectors" headed by Pratap Kafle, D.V.M., Ph.D., DACVM, Assistant Professor, Veterinary Parasitology.
2. "Exploring the In Vitro Selective Cytotoxic Potential of Novel Microbial Proteins Against Cancer Cells Isolated from Dogs" led by Mohamed A. Abouelkhair, D.V.M., M.S., Ph.D., DACVM, CABMM, Associate Professor, Virology and Clinical Immunology.
3. "Evaluating Antimicrobial Resistance in Commercial (Over-the-Counter) Probiotic and Synbiotic Supplements" led by Nora Jean Nealon, D.V.M., Ph.D., Assistant Professor, Microbiology (Bacteriology).
4. "A Survey of Practices and Perceptions of Workers on NJ Pig Farms toward Pain Management in Piglets during Routine Husbandry Procedures" headed by Kavitha Kongara, B.V.Sc., M.V.Sc., Ph.D., Associate Professor, Anatomy and Physiology; and Elena T. Contreras, D.V.M., M.S., Ph.D., Associate Professor, Animal Welfare & Behavior.

These exciting new opportunities help students fulfill the 7 experiential learning credits required to graduate with an animal science major as well as enhance the skills needed to excel in professional schools, graduate school, or employment in animal science-related careers.

Graduate Program Highlights

Carey Williams, Ph.D., Graduate Program Director

The 2024-2025 academic year has been a very active one for the Endocrinology and Animal Biosciences Graduate Program. We welcomed our newest EAB faculty member, Dr. Meli'sa Crawford, and seven new students in Fall 2024. We also celebrated two Ph.D., three M.S., and three non-thesis (4+1) M.S. graduates. See more about each one below. Congratulations to all on their exciting new beginnings and achievements!

New Faculty. Since the last issue of the *Animal Science Update*, one Rutgers faculty joined our EAB Graduate Program. **Meli'sa Crawford, Ph.D.,** is an assistant professor in the Department of Animal Sciences in the School of Environmental and Biological Sciences. She joined Rutgers in January from the University of California, Riverside. Her research program at Rutgers broadly addresses agriculture air pollution and development of gastrointestinal disease and metabolic disorders.

New Students. In Fall 2024, we welcomed an astounding six Ph.D. students and one M.S. student who switched to the Ph.D. track this fall.

Morgan Atkinson (Ph.D. track) earned her bachelor's degrees in biological sciences and cognitive and behavioral neuroscience from Virginia Tech. She joined Dr. Troy Roepke's lab and her research topic is estrogen systems in the brain and their relation to behavior, especially anxiety.

Alexis Birch (*top left;* Ph.D. track) obtained her B.S. in animal sciences from Purdue University. She conducts research on ruminant and equine nutrition under the supervision of Dr. Tess Stahl and Dr. Carey Williams.

Cameron Hamson (Ph.D. track) received their dual bachelor's degree in biology and literature from Claremont Mckenna College and their master's degree in biomedical engineering from the University of Colorado, Boulder. Cam joined the Roepke lab and their research topic is to be determined.

David LoBiondo (M.S. to Ph.D. track) graduated with a bachelor's degree in biological sciences from Rutgers. He joined Dr. Igor Shmarakov's lab where he studies retinoid signaling as it applies to the differentiation and polarization of bone marrow-derived macrophages.

Sophia Maddocks (*bottom left;* Ph.D. track) completed her B.S. in agriculture (animal science) from the Ohio State University. She joined Dr. Karen Schindler's lab and is studying reproductive biology and how females form healthy eggs for fertilization.

Safa Sefidgari-Abrasi (*top right;* Ph.D. track) graduated with bachelor's and master's degrees in nutrition science from Tabriz University of Medical Sciences (Iran). She joined Dr. Christoph Buettner's lab and her research topic is to be determined.

Valentina Vargas (*bottom right;* Ph.D. track) graduated with a bachelor's degree in biological sciences and a master's degree in biomedical sciences from Rutgers. In 2022, she joined Dr. Miriam Bocarsly's lab as a research teaching specialist and continues her work in neural circuitry and behavioral motivations that drive food intake for her dissertation.

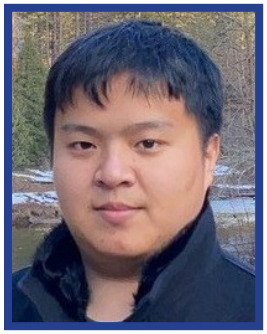
Recent Degree Recipients

Thomas Degroat, Ph.D. (Roepke lab, May 2025), defended his doctorate, with his seminar titled "How Chronic Physical and Social Stress Can Affect Behavior and Neurophysiology of the BNST," on January 24, 2025. He studied how chronic stress leads to depressive-like avoidant behaviors in mice that is related to changes in the neurophysiology of the anterodorsal bed nucleus of the stria terminalis (adBNST). While in the program, he was supported in part by a White-Stevens Graduate Fellowship and a Hilda S. Foster Fellowship. Since he started at Rutgers in fall 2019, he had served as vice president, co-president, and president of the EAB Graduate Student Organization and received the Graduate Student Association (GSA) Excellence in Graduate Leadership Award in 2023. Tommy is a postdoctoral fellow at Wayne State University in Michigan. Congratulations, Tommy!

Nimisha Nandankar, Ph.D. (Roepke lab, May 2025; *right***),** defended her dissertation, "Elucidating the Role of KNDy Neuron Kisspeptin in GnRH Pulsatility and Metabolic Homeostasis," on March 14, 2025. Her project focused on the role of the neuropeptide kisspeptin in KNDy neurons within the hypothalamus on reproductive function and glucose metabolism using transgenic mouse models, within the context of sex steroids. She served in the EAB Graduate Student Organization as secretary and co-president as well as in the GRIB graduate student conference planning committee. Nimisha was supported by the Endocrine Society's Research Experiences for Graduate and Medical Students (REGMS) Fellowship and a NIH F31 Pre-Doctoral Fellowship. In July 2024, she started a position as a venture analyst at the University of Michigan's Biomedical Venture Fund (MBVF). Congratulations, Nimisha!

Nadja Knox, M.S. (Roepke lab, October 2024; *left***),** presented her thesis defense seminar, "The Interaction of Diet-Induced Obesity and Chronic Stress in a Mouse Model of Menopause," on September 10, 2024. Her research investigated the combined effects of a high-fat diet (HFD) and chronic stress exposure in a mouse model of menopause using 4-vinylcyclohexene diepoxide (VCD), a selective ovotoxicant that gradually depletes ovarian follicles and hormones. In addition to her research, Nadja served as social media co-coordinator of the Council of Black Graduate Students and on the Graduate Research in Interdisciplinary Biosciences (GRIB) planning committee. She is currently a scientist at Eurofins BioPharma Product Testing. Congratulations, Nadja!

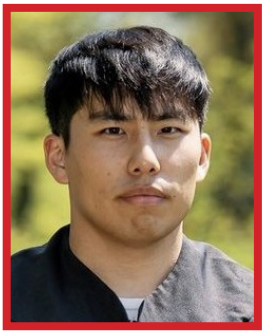
Keisha Abreu, M.S. (Bocarsly lab, January 2025; *right***),** defended her thesis, "The Association between Binge Eating and Alcohol Use in a Mouse Model," on December 5, 2024. Her project examined if binge eating behavior cross sensitizes individuals to alcohol use and vice versa. She works as a veterinary assistant and plans to pursue a medical laboratory technician certification. Congratulations, Keisha!



Fang Luo, M.S. (Pang lab, January 2025; *left***),** presented his thesis defense seminar, "Development and Application of Genetically Encoded GLP-1 Sensors in the PVN: Unveiling Neural Control of Feeding Behavior," on December 18, 2024. His research focused on the development and validation of a family of genetically encoded glucagon-like peptide-1 (GLP-1) sensors, employing supplementary in silico evolution strategies to enhance their sensitivity and specificity. During his time at Rutgers, Fang served as secretary of the EAB Graduate Student Organization. After graduation, he and his friends founded Sokoly Systems, a startup specializing in the research and development of AI-powered unmanned aerial systems. He is the acting president and the CTO for the company. Congratulations, Fang!

4+1 Program in Animal Sciences/Endocrinology and Animal Biosciences

In Fall 2024, we admitted three students for the 2025 class of the Animal Sciences/EAB 4+1 program. This program launched in Fall 2023 and allows a student who successfully completes a B.S. in Animal Sciences (120 credits) to also complete a non-thesis M.S. in Endocrinology and Animal Biosciences with one additional year of coursework (30 credits). (For more information, please visit the 4+1 Program website.) Congratulations to Yongwoo, Megan, and Amelia, who successfully completed the program!



Yongwoo Lee, M.S., was excited to be part of the 4+1 Endocrinology and Animal Biosciences program, where he assisted in Dr. Shmarakov's lab. His research focused on bone marrow extraction and culturing for M1 and M2 macrophage proliferation, contributing to studies across several fields. Through coursework such as Integrative "Organ Physiology" (16:963:512), "Advanced Nutrition" (16:709:552), and "Advanced Equine Health and Management" (11:067:398), Yongwoo deepened his understanding of endocrinology, physiology, and biochemistry. These experiences not only strengthened his academic foundation but also prepared him for his next steps. He plans to work as a veterinary assistant and apply to veterinary school. Congratulations, Yongwoo!

Megan Phu, M.S., enrolled in "Neuroendocrinology" (16:340:510), "Nutrition: A Biochemical and Physiological Basis" (16:709:552,553), and "Molecular Basis of Physiology" (16:761:580). She participated in a summer internship at Rowan's Shreiber School of Veterinary Medicine working with Dr. Kavitha Kongara and Dr. Elena T. Contreras on their project "A Survey of Practices and Perceptions of Workers on NJ Pig Farms toward Pain Management in Piglets during Routine Husbandry Procedures." (*See page 7.*) Congratulations, Megan!

Amelia Puglia, M.S., continued with research in Dr. Kenneth H. McKeever's lab at the Rutgers Equine Science Center. She assisted in helping with muscle mass studies on older horses where she was able to learn about muscle biopsies, ultrasounds, and more. She also participated in Ag Field Day helping with the horse show. She has been able to learn more information on biochemistry, endocrinology, and nutrition while taking classes such as "Nutrition: A Biochemical and Physiological Basis" (16:709:552,553) and "Neuroendocrinology" (16:340:510). She is grateful for the experience and opportunities Rutgers has provided her. In the fall, Amelia has joined the inaugural class of the Shreiber School of Veterinary Medicine of Rowan University. Congratulations, Amelia!

Dr. George Heflich Endowed Graduate Research Award. Last fall, Ph.D. student **Stephanie Totilo** (*top right*) received the Dr. George Heflich Endowed Graduate Research Award. She investigates the effect of in utero alcohol exposure on the mammary gland in Dr. Wendie Cohick's lab. Stephanie has served in the EAB Graduate Student Organization as treasurer and president as well as in the GRIB graduate student conference finance and media and marketing subcommittees. Congratulations, Stephanie!

Research and Conference Travel Award. Ph.D. candidate **Kuhelika Mali** (*bottom right*) received a Research and Conference Travel Award from the School of Graduate Studies to attend the Society of Toxicology's 64th Annual Meeting and ToxExpo which took place March 16–20, 2025, in Orlando, Florida. In her research, supervised by advisor Dr. Shuo Xiao, Kuhelika studies contributions of endocrine disrupting chemicals (EDCs) on ovarian hyperandrogenism. Congratulations, Kuhelika!

Faculty Honors

Dr. Carey Williams Named Outstanding Educator by Equine Science Society

Dr. Carey Williams, Equine Extension Specialist/Professor, received the Outstanding Educator Award at the Equine Science Society (ESS) Symposium in Fort Collins, Colorado, on June 6, 2025. This award recognizes an individual who has demonstrated excellence in the area of equine education, either to students or persons in the horse industry. Dr. Williams teaches the popular "Comparative Mammalian Anatomy" (11:067:391), which she developed over 15 years ago and features hands-on lab classes; "Equine Nutrition" (11:067:390), both in person and as an online course available through the Office of Professional Education; and the horse section of "Animal Handling, Fitting, and Exhibition" (11:067:175:HO). She also co-teaches "Animal Evaluation and Selection" (11:067:260). She consistently receives high scores for teaching enthusiasm and content effectiveness on her student evaluations. She has also mentored several undergraduate research students who have become successful professionals. Additionally, Dr. Williams has guided numerous graduate students as the advisor on their M.S. and Ph.D. research, and as Director of the Endocrinology and Animal Biosciences Graduate Program since 2023, welcoming the inaugural class of the new 4+1 program that fall.

Beyond her dedication to students, Dr. Williams has contributed significantly to equine education through her extension activities and as the Associate Director for Extension, and recently appointed Interim Director, at the Equine Science Center. She has successfully hosted or co-hosted annual state and regional programs for adults and youth, including the Junior Animal Science Symposium; An Evening of Wine and Equine seminar series held in combination with local wineries; the in-person Horse Management Seminar; and the Virtual Horse Management Seminar Series, which is attended by hundreds of professionals and enthusiasts from around the world. She is also involved with Extension Horses, Inc., a nationally recognized and award-winning extension outreach initiative led by professionals from different American land-grant universities who bring research-based information to the public. Her primary role has been to assist with content creation for learning lessons, such as infographics and fact sheets. She is also part of the Ask the Expert section and has helped with numerous webinars and podcasts. Congratulations, Dr. Williams!

Dr. Mike Westendorf Retires

Office of Public Outreach and Communication

Dr. Mike Westendorf grew up on a small dairy farm in Idaho before studying animal science at the University of Idaho as an undergraduate, then earning his Ph.D. at the University of Kentucky in Animal Science and Ruminant Nutrition. It was in graduate school where he met his wife, Daphne, who is from the east coast, which eventually brought him to New Jersey. He came to Rutgers in 1993 as an Assistant Extension Specialist after a stint in Washington, D.C., working as a Congressional Science Fellow.

In addition to his work with Rutgers Cooperative Extension (RCE), Westendorf has researched food and byproduct residues as animal feeds, and animal waste management and utilization. His career has allowed him to work directly with farmers across New Jersey, developing technical support programs and finding productive and innovative ways to manage their farms. He also taught upper-level courses in animal production and management and collaborated with the State Department of Agriculture, the USDA Natural Resources Conservation Service, and the NJ Farm Bureau. "The thing I enjoyed most of all was working directly with farmers and students. I've taught courses since I arrived at Rutgers and I've made many visits to farms with students," said Westendorf. "I enjoyed being able to interact with students and further their education and ability to think and learn about agriculture." *(Right: Dr. Westendorf was named RCE's "Specialist of the Year" in 2018.)*

In his retirement, he plans to do what he's always enjoyed—reading and writing—primarily his family history, and regional travel to New England and other locations on the east coast. (Read full article.)

Dr. Karyn Malinowski Retires

Kyle Hartmann, Manager of Special Events & Programs, Equine Science Center; and Nick Bello, Ph.D., Professor and Chair

In 1975, Karyn Malinowski graduated from Rutgers University, New Brunswick (Cook College) with a bachelor's degree in animal science. She stayed at Rutgers for 50 years and pursued her passion for using science-based strategies to improve the health and well-being of horses. During the process, she went on to get master's and Ph.D. degrees from Rutgers and was appointed as Assistant Extension Specialist. Remarkably only two years after receiving her Ph.D., Karyn was granted tenure in 1988, and in 1998, she was promoted to Extension Specialist in Horse Management (equivalent to Full Professor), Rutgers Cooperative Extension. She went on to take leadership positions as Interim Chair of the Department of Agricultural and Resource Management Specialists and Director of Rutgers Cooperative Extension. She went on to establish the Equine Science Center in 2001 and serve as founding director until June 30, 2025.

During her tenure of the Rutgers Equine Sciences, Karyn won countless awards, such as American Horse Council Van Ness Award (2001), Outstanding Equine Educator Award, Equine Nutrition and Physiology Society (2001), Rutgers Graduate School Lifetime Achievement Award (2007), Northeast Extension Directors' Award of Excellence (2008), Governor's Trophy for Horseperson of the Year (2009), LeeAnne Pooler Unsung Hero Award by the United States Harness Writers Association (2012), and Pfizer Innovation Board of Director (2012). Karyn has been a leading expert for media outlets and governing boards concerning the welfare of the equine athlete and the horsing industry. Karyn has authored several reviews and proceedings that have been standard guidance for the horse industry. (Read the press release.) *(Left to right: Kyle Hartmann, Dr. Taylor Ross, Dr. Malinowski, Dr. Alisa Herbst, and Dr. Ken McKeever.)*

Without question, Karyn and the Rutgers Equine Science Center has had a tremendous and long-lasting impact on the field of equine sciences.

Dr. Dipak Sarkar Named BHI "Super Star" for Research Excellence and Publishes Manuscript in Impactful *Neurooncology* Journal

Distinguished Professor Dipak Sarkar received a Rutgers Brain Health Institute's "Super Star" Research Excellence Award, which recognizes lifetime achievement by leading BHI members who have had a notable impact in their field and on society. With over 200 peer-reviewed articles, Dr. Sarkar has made foundational discoveries on the role of hypothalamic neurohormones in regulating reproduction, the stress response, and immune functions, as well as the consequences of fetal alcohol exposure and associated epigenetic modifications that are passed across generations. He established the Endocrine Program in 2005 and the associated Endocrine Research Facility. He has served as advisor to 14 graduate students and 60 postdoctoral fellows and has secured more than 100 NIH grants, with total funding exceeding $30,000,000. *(Photo: Dr. Gary Aston-Jones, Director of the BHI and Murray and Charlotte Strongwater Endowed Chair in Neuroscience and Brain Health, presents Dr. Sarkar with the award at the BHI's Research and Service Awards Ceremony December 10, 2024, at the Zimmerli Art Museum in New Brunswick.)*

Last year, Dr. Sarkar and his team published the manuscript, "DPPA4 increases aggressiveness of pituitary neuroendocrine tumors by enhancing cell stemness," in *Neurooncology*, which is ranked number 15 of 322 international oncology journals with an impact factor of 16.4. Using both aggressive pituitary neuroendocrine tumors (PitNETs) of fetal alcohol exposed rats and of human patients, Dr. Sarkar's lab has shown that these tumors overexpress the developmental pluripotency-associated4 (DPPA4) gene that led to increased production of tumor stemness factors known to be responsible for uncontrolled growth. The study also revealed that DPPA4 is overexpressed following alcohol exposures due to epigenetic modification of this gene and presented evidence of a causative role of DPPA4 in alcohol promotion of cancer. Their data identifies potential therapeutic uses of DPPA4 gene expression/action modifiers in the treatment of aggressive PitNETs. Because DPPA4 was also found previously to be highly expressed in non-small-cell lung cancer tissues, this cell stemness regulator may also be involved in the development and progression of other cancers. Dr. Sarkar's team members on this work are postdoctoral fellows Ujjal Das, Shaista Chaudhary, and Bénédicte Rousseau; graduate student Shaima Jabbar; research associate Omkaram Gangisetty, Ph.D., and neurosurgeon Simon Hanft, M.D. Congratulations, Dr. Sarkar!

Hank Bignell Chosen as 2025 Alpha Zeta "Teacher of the Year"

Office of Public Outreach and Communication

Henry "Hank" Bignell, teaching instructor in the Department of Animal Sciences, was named the 2025 Teacher of the Year by the Rutgers Chapter of the Fraternity of Alpha Zeta, the national honor and service fraternity for agriculture and environmental studies. The award was named in memory of Barbara Munson Goff, former director of the Cook General Honors Program and an Alpha Zeta alumna, who was an extraordinary teacher and mentor at the school. The annual award reflects the high standards of teaching exemplified by Dr. Goff and the qualities of leadership, character, and service that are synonymous with the ideals of the fraternity. *(Photo: Professor Bignell was recognized for his impact on his students' education at the SEBS Baccalaureate Ceremony on May 15, 2025, in the Douglass Student Center).*

He teaches five Animal Science courses to more than 500 students each academic year and oversees and coordinates the "Animal Nutrition Laboratory" sections, where he mentors Graduate Teaching Assistants. He's passionate about providing students with experiential learning opportunities and prizes being the instructor of the "Academic Mentoring" class for first-generation students and serving as a first-year and transfer student advisor for Animal Science students. "Professor Bignell is the kind of professor every student wishes they could have every year," says Sabrina Kim, an Alpha Zeta student who majors in animal science. "He genuinely wants the best for his students and constantly goes above and beyond to help them, whether he's offering academic guidance as an advisor or giving emotional advice like a father. His dedication, warmth, and unwavering commitment to his students make him truly deserving of this title."

Hank Bignell humbly credits his growth and success to his departmental colleagues, especially his grad school advisor, mentor, and friend, Professor Carol Bagnell. Prior to his teaching role in the Department of Animal Sciences, Bignell had an 8-year tenure as a Cooperative Extension Agent at the University of Florida, Cornell University, and Rutgers. But, by far, his most fulfilling roles are teaching undergraduate students and mentoring graduate students. Congratulations, Professor Bignell!

Events

The 16th Annual Pioneers in Endocrinology Workshop

The Pioneers in Endocrinology Workshop is an annual event for scientists interested in issues concerning endocrine and metabolic health, endocrine gland cancers, nutrition, neuroscience, environmental toxicology, and alcoholism and drug abuse. Focusing on a different theme each year, the workshop features two guest speakers and a luncheon, followed by a poster session displaying advanced endocrine research being conducted at Rutgers and other universities. Held on October 29, 2024, at the Busch Student Center, the theme was "Endocrinology of Pregnancy."

Dr. Dipak Sarkar, director of the Rutgers Endocrine Program, hosted approximately 70 attendees. He, along with **Laura Lawson**, Ph.D., Executive Dean, School of Environmental and Biological Sciences, and **Michael E. Zwick**, Ph.D., Senior Vice President for Research, presented the opening remarks

Nicholas Bello, Ph.D., Professor and Chair, Department of Animal Sciences, introduced the first speaker, **Terry K. Morgan** (*top left*), M.D., Ph.D., Professor of Pathology, Obstetrics & Gynecology, and Biomedical Engineering at Oregon Health & Science University, who presented his lecture "Everything We Think We Know About Placental Extracellular Vesicles May Be Wrong: NanoFACS Is a Solution." **Louis Amorosa**, M.D., Division of Endocrinology, Metabolism and Nutrition, Rutgers Robert Wood Johnson Medical School, introduced the second speaker, **Kjersti Aagaard** (*left*), M.D., Ph.D., F.A.C.O.G., National Director of Perinatal Research and Medical Director of Maternal Fetal Medicine at Texas HCA Healthcare and Research Scientist at the Maternal Fetal Care Center, Division of Fetal Medicine and Surgery, at Boston Children's Hospital, Harvard Medical School. Dr. Aagaard's talk was titled "Sweet Beginnings and Sour Ends: Role of Maternal Diet, Diabetes, and Metformin on Fetal Programming."

A question-and-answer session subsequent to each lecture was led by **Carol Bagnell**, Ph.D., Professor, Department of Animal Sciences, and **Sue Shapses**, Ph.D., R.D., Professor of Nutritional Sciences and Director of the NEXT Center at the NJ-IFNH. The workshop was sponsored by the Rutgers Endocrine Program; the Department of Animal Sciences; Rutgers – RWJMS Division of Endocrinology, Metabolism and Nutrition; the NExT Center, NJ Institute of Food Health and Nutrition; and industry colleagues Research Diets, Inc., and ThermoFisher Scientific. All contributions to the workshop were generous and much appreciated.

Successful Second Year of the ANSCId Program

Terichi Bellinger, Program Coordinator, Animal Science Discovery Program

The Animal Science Discovery Program (ANSCId) successfully ran the second cohort of the summer program from June 23 to July 11, 2025, with continued funding from the USDA NIFA NextGen grant. A total of 25 students from our partner institution, LaGuardia Community College, were able to participate. Nineteen students were in the Summer Experiential Learning Program (SELP)—a program with approximately 30 modules designed to explore Animal and Human Health, Food and Agriculture, Biomedical Research, and USDA Workforce Development. Another six were in the Summer Undergraduate Research Experience (SURE), where they were mentored by a SEBS graduate student to engage with their research projects. *(Above: Associate Professor Mehmet Uzumcu with SELP students Jaelynn Yupanqui, Pamela Pauyac, and Fernando Tenezaca.)*

Eleven Animal Science undergraduate students were trained as academic and social peer mentors for the ANSCId program. They trained with the farm staff as teaching assistants for animal husbandry and handling classes in spring 2025 and took on a leadership role in the summer as peer mentors assisting with animal handling, lab modules, professional development, and fun activities, such as game and movie nights.




The closing ceremony this year consisted of group presentations from the SELP cohorts *(left)* and individual research presentations from the SURE participants. The Dean of Transfer students at SEBS and representatives from the Office of Global Engagement and Career Exploration Services tabled to give the LaGuardia students an opportunity to see what life at Rutgers could look like for them. The peer mentors also tabled and provided information about a variety of careers in animal sciences, ranging from veterinarian to farmer.

In Fall 2025, three students who participated in the summer program (both this year and last year) will be transferring to Rutgers as ANSCId scholarship recipients. The articulation agreement between LaGuardia and Rutgers allows the transfer of 60 credits for students who complete their associate's degree at LaGuardia and want to pursue their bachelor's degree. Alleviating the financial burden of out-of-state tuition allows students to focus their energy on academics instead of how to pay for their education. Abigail Arteaga, Angelina Dominguez, and Ailis Fernandez will be joining Ashley Hernandez, who is on track to complete her bachelor of science degree this fall! (*Left to right: LaGuardia program coordinator Omar Salas Lopez, SURE student Nikolaos Panagopoulos with his certificate of completion, Rutgers program coordinator Terichi Bellinger.)*

Alumni Update (Send us a photo and blurb if you'd like to be featured!)

Dr. Nora Jean Nealon graduated as valedictorian from the School of Environmental and Biological Sciences in 2013, with a 4.00 GPA and a triple major in animal science, nutrition, and biology, and a double minor in companion animal studies and endocrine physiology. She then completed her D.V.M. and Ph.D. at Colorado State University College of Veterinary Medicine and Biomedical Sciences and a postdoctoral fellowship in companion animal microbiome sciences at The Ohio State University College of Veterinary Medicine, while also working part-time as a small animal emergency veterinarian and clinical microbiology instructor. In March 2025, Dr. Nealon began a faculty position at the Shreiber School of Veterinary Medicine at Rowan University, where she currently runs a microbiology and bioinformatics research laboratory. Her research examines how antibiotic resistance develops and spreads within companion animals and aims to identify novel ways to reduce this spread of dangerous microorganisms. As a Jersey native, Dr. Nealon looks forward to serving her community in this new role, including as a physiology and microbiology instructor for incoming students at New Jersey's first veterinary school and as a mentor to graduate and veterinary students. In her life outside of academics, Dr. Nealon is a proud mother to four spoiled cats, Jellybean, Baby O, Chickpea Dandelion, and Voldemort; adores her West Highland white terrier, Sir Winston; and enjoys spending time listening to music and doting on her nieces.

Photo Credits: Page 1: Dr. Nick Bello; Dr. Kathy Manger (Dr. Westendorf photo); Kyle Hartmann (Drs. Malinowski and McKeever photos; Dr. Aparna Zama; Office of Public Outreach and Communication (Dr. Cohick photo); Dr. Tobi Ogunribido; Shruti Joshi. Page 2: Dr. Aparna Zama; Megan Gilmore; Julia DeLucca; Daniel Caramico; Daphne Lau. Page 3: Crystal Johnson; Sarah Van Name; Nicole Ficken. Page 4: Courtney Chin; Cierra Edwards; Kylie Labbe; Santiago Mesa Botero; Kailah Pyron. Page 5: Dr. Troy Roepke; Dr. Igor Shmarakov; Stacey Pontoriero; Lada Terushkin. Page 6: Rachel Halpern. Page 7: Sophia Maddocks. Page 8: Dr. Carey Williams; Dr. Meli'sa Crawford; Alexis Birch; Sophia Maddocks; Safa Sefidgari-Abrasi; Valentina Vargas; Tommy Degroat. Page 9: Nimisha Nandankar; Nadja Knox; Keisha Abreu; Fang Luo; Yongwoo Lee. Page 10: Amelia Puglia; Stephanie Totilo; Kuhelika Mali; Kyle Hartmann (Dr. Williams photo). Page 11: Dr. Kathy Manger (Dr. Westendorf photos); Nick Romanenko/Rutgers (Dr. Malinowski with horse); Kyle Hartmann. Page 12: BHI; Office of Public Outreach and Communication. Page 13: Krista Schnatter; Stacey Pontoriero. Page 14: Krista Schnatter; Dr. Nora Jean Nealon.

If you are interested in making a gift to support the Department of Animal Sciences, please contact the Senior Director, Gabrielle Peterson (gabrielle.peterson@rutgersfoundation.org), in the SEBS Office of Development and Alumni Engagement.

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