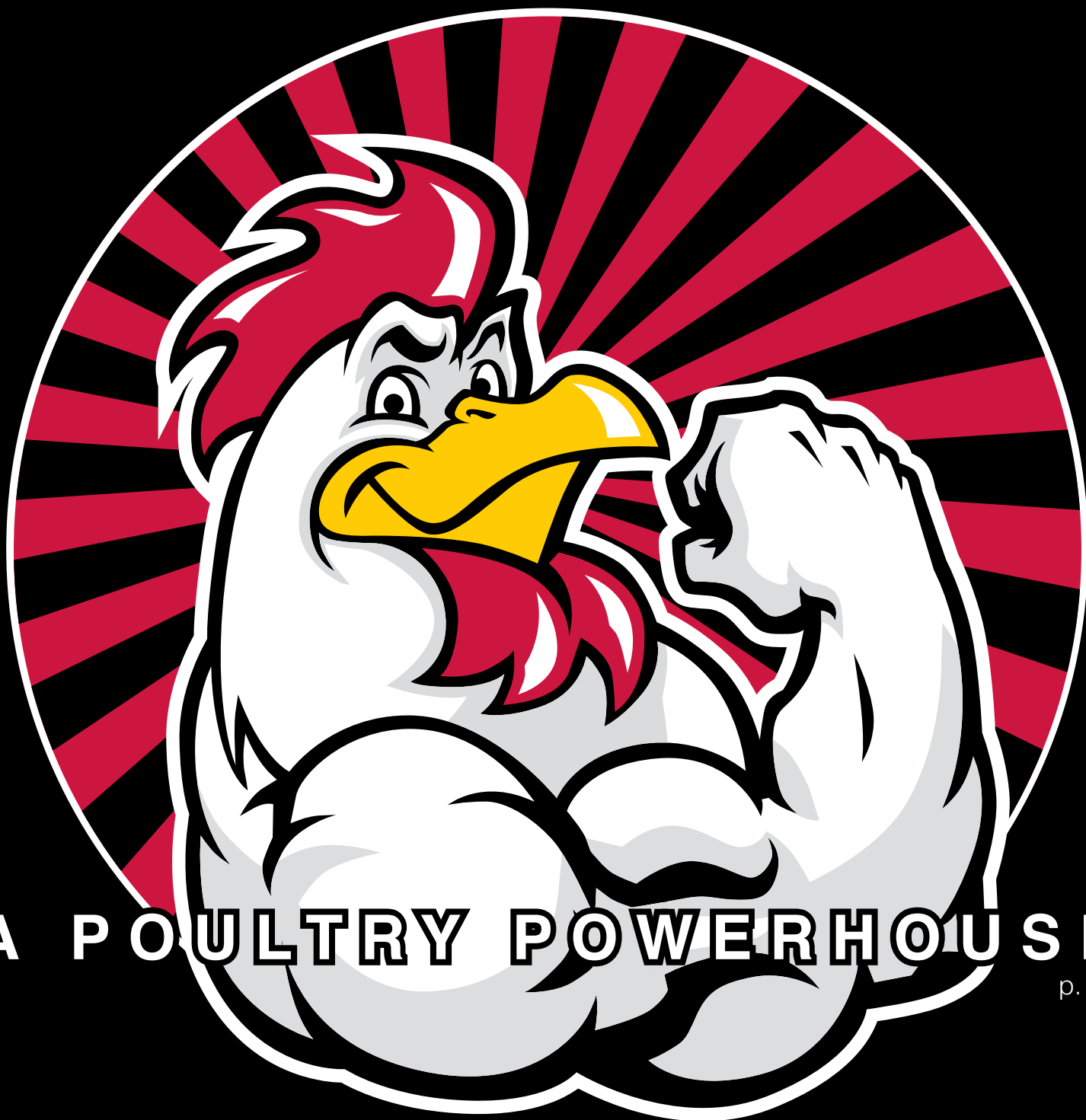




AESCULAPIAN



A POULTRY POWERHOUSE

p. 10



FROM THE DEAN

I can't believe that I've been here over two years as dean of this great college. But it's true! As I reflect back over this time, I marvel at the gains we've made, and as I look forward, I get excited about what we will yet do!

The most pressing thing we have on our agenda is our AVMA Council on Education accreditation site visit. This happens to veterinary colleges once every seven years and is of critical importance to our future. Our site visit is February 9-13, 2020, and we will spend every minute we have up until that day preparing to put our best foot forward. We did a mock site visit about a year ago and have addressed the items found by the team. Now, we're ready to repeat that process and tackle any remaining items found prior to February. Hopefully, by the time you're reading the next issue of this magazine, we'll have great news to report!

In addition to accreditation prep, the anatomy lab project is taking shape. Lord Aeck Sargent, an Atlanta-based architectural firm, has been chosen to lead the project. While demolition of the interior of the former Large Animal Teaching Hospital will begin in early 2020, we will spend the better part of the next year on the design of the anatomy lab space. As part of this overall project, some of the animal stalls will be improved for teaching physical diagnosis.

Our refresh of the Classic Campus main building continues as well with big changes coming over the upcoming holiday breaks. While the major lecture halls have been upgraded—better lighting, temperature control, seating, and technology—there is still work to be done! The student lobby will be renovated over winter break and wellness spaces on the front lawn will be improved.

And if you've been to visit us since late September, you no doubt noticed a change to our hallways . . . the class composite photos have come down. As it turns out, many of them were in a state of disrepair—faded, water damaged, and molded. To save them, we have partnered with University Archives to restore and digitally preserve them. Once this process is completed, a new digital, interactive kiosk system will be unveiled so that generations of students and alumni to come can still view these important pieces of our history.

On top of all that, our people continue to do great work here day in and day out . . . taking care of our beloved pets, ensuring the safety and security of our food supply and improving human health. In this issue alone, you'll read about the creation of a new NIH-funded (to the tune of up to \$130M!) center led by our own faculty member, Ted Ross; the new Bradbury Chair of Feline Health; and our world class team of poultry experts (pages 8, 10, and 14). Enjoy!

A handwritten signature in black ink, reading "Lisa K. Nolan". The signature is fluid and cursive, with a long horizontal line extending from the end.

Dean Lisa K. Nolan

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CVM breaks ground on new facility in Tifton

THE CVM BROKE GROUND ON A NEW FACILITY in Tifton, Georgia, in late August. The UGA Tifton Farm Animal Veterinary Medical Center will improve the CVM's ability to serve Georgia's animal agricultural industries and will strengthen the South Georgia region overall.

The 9,000-square-foot facility will feature space for the clinicians in Tifton to perform both routine and specialized food animal medical procedures in a controlled and safe environment thanks to the availability of a large hydraulic tilt chute and enclosed treatment room. In addition, this facility will help bring access to advanced reproductive technologies, such as in-vitro fertilization procedures, to smaller producers who may not have had access to these technologies in the past. The College expects that they will be able to offer additional services once the facility is completed in early 2020. These services will likely include lameness treatments using the new tilt chute to address foot and leg problems in cattle, especially for bulls.

"The goal of this new facility is to strengthen our support of farmers and producers in this area and increase our students' exposure to

the unique needs of South Georgia," said Lisa K. Nolan, dean of the College of Veterinary Medicine. "It fits perfectly into the College's long-range plans to better serve all parts of Georgia and to encourage our graduates to practice in rural areas. It will allow us to more efficiently deliver veterinary services to livestock owners and, with its proximity to our Tifton Diagnostic Lab, will strengthen the relationship between the clinical and diagnostic sides of veterinary medicine."

The groundbreaking ceremony featured remarks from state representative Penny Houston (R-Dist. 170) as well as College personnel. Former state senators John Crosby (R-Dist. 13) and John Bulloch (R-Dist. 11), both of whom were instrumental in helping secure the funding for the project, were in attendance as well as Representative Clay Pirkle (R-Dist. 155), representatives from the College's advisory board, and constituent groups such as the Georgia Veterinary Medical Association, Georgia Department of Agriculture, Georgia Milk Producers, and Georgia Cattlemen's Association. Construction on the facility will begin immediately with an expected completion in spring 2020.



Pictured l to r: Dean Lisa K. Nolan, State Rep. Clay Pirkle, former State Senator John Crosby, State Rep. Penny Houston & former State Senator John Bulloch.



DVM student awarded Black Faculty and Staff Organization scholarship

THIS FALL, THIRD-YEAR DVM STUDENT KRISTEN PEAGLER was conferred the BFSO Founders Scholarship – Professional Student. This award recognizes outstanding students for academic performance, spirit of volunteerism, and extracurricular activity—areas in which Peagler goes above and beyond the norm.

Volunteerism is a passion for Peagler, and she has always been involved in her community everywhere she has lived. “Simply existing in your community isn’t enough,” says Peagler. “Becoming an active part of the community and getting to know your constituents lets you have an active role in its betterment.” Peagler is a student ambassador and honor council member in the College of Veterinary Medicine. She has also assisted with a number of programs hosted by the College such as VetCAMP,

where she was a counselor, UGA Dawg Trails, and This Is How We “Role”, a program in which she and other veterinary students teach classes to inspire underserved elementary students to pursue careers in veterinary science.

Peagler relates that she had always wanted to be a veterinarian, but this idea was cemented after witnessing her family dog, a giant schnauzer named Nile, push her little brother out of the way of a moving vehicle. “I was intrigued by the fact that this animal risked its life to save my brother’s,” Peagler states, “and from that point forward, I was committed to helping animals.” Peagler hopes to aid in the development of space medicine with focus on neurology and orthopedics using animal and computer models to help other animals and humans. Her end goal: NASA. Congrats and keep reaching for the stars, Kristen!



Annual Science of Veterinary Medicine Symposium held, gets new name

THE COLLEGE’S ANNUAL SCIENCE OF VETERINARY MEDICINE SYMPOSIUM was held in October for the 12th year. The day-long symposium featured poster and oral presentations by research trainees of all levels from across the CVM, as well as a keynote presentation from an invited veterinarian-scientist—Dr. Noah Cohen, professor and director of the Equine Infectious Disease Laboratory and associate department head for research and graduate studies at the College of Veterinary and Biomedical Sciences at Texas A&M University.

The CVM was pleased this year to announce a name change for the SVMS. From now on, the annual event is officially “The Steeve Giguère Science of Veterinary Medicine Symposium” in honor of Dr. Steeve Giguère, former faculty member in the Department of Large Animal Medicine and Marguerite Thomas Hodgson Chair of Equine Studies who passed away suddenly in an accident last year. He led by example to steer his graduate students and colleagues towards collegiality, research success, and excellence in teaching and clinical practice and was the epitome of the “clinician scientist”—a true advocate for training veterinary students and residents in evidenced-based medicine and research methods. We are proud that the symposium will honor Dr. Giguère’s memory and his contributions to the UGA CVM for years to come.

This year’s winners were Shenise Howard, Maria Orbay-Cerrato, Ashley Beavis, Maria Huertas-Diaz, Laura Huber, Emily Cook, Ashley Rasys, Rodrigo Abreu, Margaret Lemons, Kelsea Guest, Rachel Sanchez, Margaret Cassandra, Dayle McClintock, Maryam Al Mansi, and Rebecca Bates.



AFTER THE BELL

SINCE 2017, Purdue University has offered the This Is How We “Role” grant to colleges and schools of veterinary medicine around the country. The grant allows for the delivery of a 12-week curriculum of classes designed by Purdue to promote interest in math, science, problem solving, and, of course, veterinary medicine. Groups of veterinary students of varying backgrounds are preferred as the program seeks to introduce diversity into a historically homogenous occupation.

Selected schools and colleges partner with a local underserved elementary school, whether through socioeconomic status, race, ethnicity, or otherwise. The message: anyone can be a veterinarian; anyone can be a scientist—all it takes is a spark and tenacity.

For the last two semesters, the UGA CVM has partnered with the after-school program at Oglethorpe Avenue Elementary School (OAES). For six weeks per semester, UGA veterinary students visit the school and treat small groups of students to an afternoon of fun and learning. This semester’s group of students have enjoyed their visits so far and are looking forward to future lessons.

Third-year DVM student Kristen Peagler is a student volunteer, and she is optimistic about the program’s impact. She feels that “making learning about the topics enjoyable, while also stimulating inquisitiveness and showing the kids the true realm of the profession, will inspire a new generation of diverse students.”

The response from the OAES students has been positive. Peagler relates, “The kids were full of energy and excited to learn, which is impressive after a long day at school.” And the surprises didn’t stop there. According to Peagler, the young students would often use their outside knowledge from other classes to relate to the lesson.

OAES school counselor Christina Cotsakis Cordón has expressed her delight with the UGA students’ presence on campus. “The This Is How We ‘Role’ program is a great way for our students to have fun while learning about new careers,” she said. “While the program focuses on veterinary medicine, and we now have aspiring veterinarians at OAES, this is also the starting point for many students to learn about other career opportunities as well.”

And these lessons also have an impact on the adults in the school. Cotsakis Cordón says, “Students who participate in the program will often stop me to tell me about the animals that they are learning about. The students truly enjoy spending time learning with UGA students at the How We ‘Role’ program!”



1435
total qualified
applicants

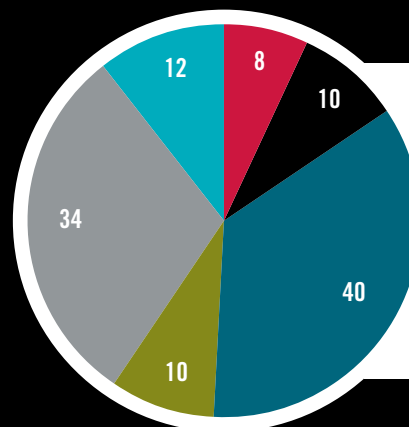
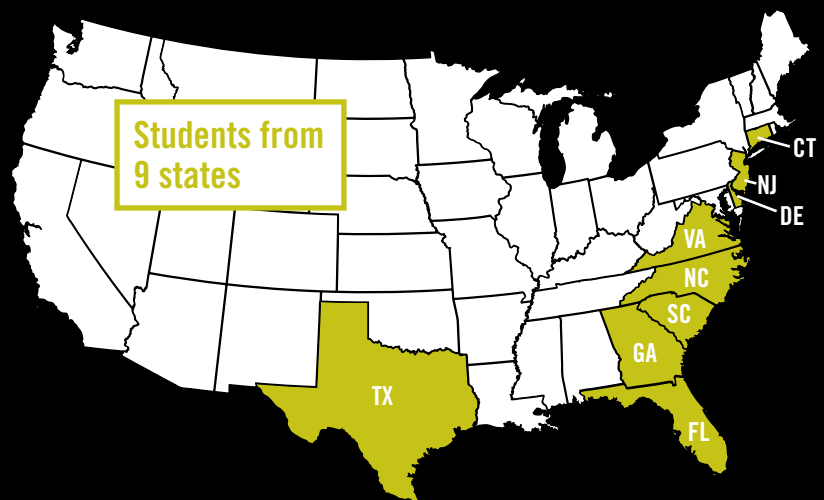
23.6
average age

3.63
average
overall GPA

Class of 2023

Equines

We had a 24% increase in traditional underrepresented minority students with this class—meaning we're more diverse than ever!



Areas of Interest:
(114 students)

Equine Medicine
Food Animal Medicine
Mixed Animal Medicine
Public/Corporate Medicine
Small Animal Medicine
Zoological Medicine



On the Wild Side

by Alec Lee

WHEN YOU THINK OF GEORGIA WILDLIFE IN THE SUMMER, what comes to mind? Fireflies, deer and their newborn fawns, dragonflies by the lake or pool. Hummingbirds are common summertime visitors in Georgia, and certain species often stick around through the winter. The later months of summer are also the ideal nesting time for Georgia's eastern box turtles. Seeing these animals in the wild is always a treat for Georgia residents and visitors.

Because of help from our community, the Veterinary Teaching Hospital has had the opportunity to care for several of these animals this summer. Two hummingbirds and two eastern box turtles were brought to the hospital after they were found by locals who thought they could use a helping hand.

Mary-Grace Trogdon is a junior in her undergraduate program studying animal health and animal science at UGA. In her free time, she volunteers as a member of the CVM's Wildlife Treatment Crew (WTC). Working out of the zoological medicine clinic, the WTC is a group for students which provides medical care and treatment to injured native fauna. Participation in the Crew allows students to gain hands-on clinical experience with a variety of species. Students are overseen by senior veterinary students and clinicians to guarantee the best treatment for the animals as they are nurtured back to health and released to licensed rehabilitators or their natural environments.

Trogdon had a huge hand in the care of the young ruby-throated hummingbirds, Georgie and Maria. Hummingbird care isn't necessarily something you find in a textbook as treatment of these birds is extremely rare outside of specialized rehabilitation centers. Necessary procedures such as sedation were developed through research and contact with specialists in the region. Fledgling hummingbirds require around-the-clock feeding and attention, so

Trogdon had many a sleepless night. With help from Dr. Jörg Mayer, associate professor of zoological medicine and clinician at the teaching hospital, and zoological medicine resident Dr. Gregory Walth, Trogdon and the team even formulated a specialized diet high in protein and calories to support the rapid metabolism of the birds.

"Working with these animals allows us to learn and discover new methods of treatment," said Mayer. "It means that when we see similar cases in the future, we know what to do. We've done it before. These types of cases are great learning opportunities for our students—they definitely fall into our teaching mission."

The team also recently took in two young eastern box turtles who were critically injured by predators. While care for turtles and other reptiles is well documented, these turtles presented a special opportunity for students. The animals are wild, so students are able to take more responsibility for their care and spend more time learning from the animals. In addition, the doctors and students also have the ability to try new techniques that might benefit future reptilian patients. The turtles received daily treatments including antibiotic therapy, nutritional support facilitated through tube feeding, therapeutic laser treatments, topical honey bandages, and applications of dental acrylic for shell repair among others. Daily walks on the hospital lawn with exposure to sunlight were also prescribed for the healing turtles.

The College's mission is to better the lives of both humans and animals while preparing the next generation of veterinarians. Support of our native fauna not only benefits our ecosystem but also gives us the chance to learn more about their care. Whether that care includes developing new techniques for rare cases or simply modifying commonplace treatments for individual patient needs, the important thing is that we learn. And through that learning, we help pave the way for future experts and ensure that our native wildlife continue to live alongside us.



WE ARE PLEASED TO INTRODUCE ELLEN SIMS, our newest team member in development and alumni relations at the College of Veterinary Medicine! Ellen will serve as the assistant director of alumni relations, responsible for expanding the College's alumni engagement programming as well as developing alumni networking activities and events.

She most recently served as the executive director of the Madison-Morgan Convention & Visitors Bureau in Madison, Georgia. Her proven leadership, sales, and communication skills provided the platform that positioned Madison and Morgan County's tourism identity as one of the most sought after in the state, while driving tourism traffic and marketing exposure to record levels.

In July 2019, Sims' leadership efforts were recognized statewide when the Madison-Morgan Convention & Visitors Bureau earned the Gold Level Status Certification from the Georgia Association of Convention & Visitors Bureaus, a ranking only eight other CVBs across the state have received.

Prior to that, Sims worked for the Florida School for the Deaf and the Blind in St. Augustine, serving as a human resources specialist. She also worked as an office manager for a law firm in St. Augustine and served as president and co-owner of her family's small business, Premier Painting Services of St. Augustine.

Sims received a BA in business administration from Flagler College in 1999. She resides in Madison with her husband, two children, and two dogs. One of her favorite things to do is cheer on the Dawgs surrounded by family and friends!





PETER FREY

FIGHTING THE FLU

NIH awards \$130M contract for new influenza research center to UGA CVM

by James Hataway

THE UNIVERSITY OF GEORGIA HAS SIGNED A CONTRACT with the National Institutes of Health (NIH) for an initial award of eight million dollars to develop a new, more advanced influenza vaccine designed to protect against multiple strains of influenza virus in a single dose. The total funding could be up to \$130 million over seven years if all contract options are exercised.

CVM faculty member and Georgia Research Alliance Eminent Scholar of Infectious Disease Ted Ross will lead the Collaborative Influenza Vaccine Innovation Center (CIVIC) and collaborate with teams from 14 other universities and research institutes to create and test new vaccines that may one day replace seasonal vaccines administered every year during flu season. The university expects that over the seven-year contract span, the project will be the largest award ever received by the University of Georgia.

“As we continue to build the research enterprise at the University of Georgia, we are increasing the ability of our faculty to make a profound impact on the world,” said President Jere W. Morehead. “UGA’s investments in biomedical sciences, particularly in the area of infectious diseases, make us eminently qualified to be part of this national initiative.”

“As we continue to build the research enterprise at the University of Georgia, we are increasing the ability of our faculty to make a profound impact on the world.”

- PRESIDENT JERE W. MOREHEAD

Targeting high-risk populations

The project will include specific attention to vaccine research for high-risk populations.

“The main goal of our project is to identify vaccines that are broadly protective, meaning that they will protect people against most of the versions of the influenza virus that infect humans,” said Ross. “But we are particularly interested in developing a vaccine that protects the most vulnerable people in our population, including children, the elderly, or people with weakened immune systems.”

Most people infected with influenza will recover, but it can be deadly.

During the 2017-2018 flu season, for example, influenza killed more than twice the number of people who died in motor vehicle accidents in the U.S. An estimated 48.8 million people were infected, 959,000 were hospitalized, and about 79,400 died from influenza, according to the Centers for Disease Control and Prevention.

“People with weakened immune systems, such as those who are undergoing chemotherapy treatments, are particularly vulnerable to influenza, but so are people who are obese, diabetic, or have heart disease,” Ross said. “Influenza can also be dangerous for pregnant women or women who have recently given birth.”

“We need better vaccines to protect these populations because our seasonal vaccines are not always as effective as we would like them to be,” he said.

Hard to pivot vaccine production

Every year, epidemiologists around the world monitor the influenza viruses circulating in the human population. About eight to nine months in advance of the next influenza season, public health scientists use this data to select influenza virus strains to make the annual seasonal influenza vaccine.

It then takes many months and considerable amounts of money to make the annual seasonal influenza vaccine. Unfortunately, the

manufacturing process cannot quickly pivot to a different vaccine if a new strain emerges during that time period.

“The vaccines we will develop could eliminate some of the guesswork in this process by protecting against multiple forms of influenza, even those we don’t know exist yet,” Ross said.

Ross and his collaborators will use a computational algorithm to analyze all of the genetic versions of a particular flu type and bundle the results into a single molecule—like taking every novel in a library and combining them into one giant book.

The researchers can then use these large molecules to create vaccines that recognize most or all the different iterations of the influenza virus, meaning that one dose could protect against many strains over several years.

Building the research enterprise

Ross will direct the program in conjunction with Dr. Stacey Schultz-Cherry, an infectious disease expert at St. Jude Children’s Research Hospital. They will lead a team of clinicians, immunologists, virologists, data managers, and statisticians to identify the most promising vaccine candidates for human trials.

“Opportunities such as this one are exactly why we are committed to building UGA’s research enterprise,” said David Lee, vice president for research. “I’m confident that, under Dr. Ross’ leadership, this project will make significant strides toward developing a reliable vaccine that will protect millions of Americans against potentially deadly flu infections.”

The contract includes a base budget of \$8 million for the first year of work, which began in September. With NIH approval, the project is expected to continue at the same base amount of approximately \$8 million per year for a total of seven years, through 2026.

In addition, UGA and NIH have also negotiated 33 expanded budget options, which NIH may exercise for up to a total of \$130 million over the seven years of the project.

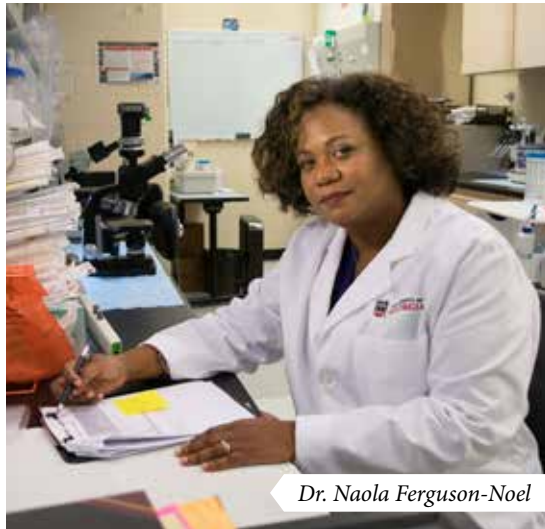
The team

Team members from UGA and St. Jude will be joined by researchers from New York University; New York University – Langone Health; the University of California, Los Angeles; the University of California, Santa Cruz; the University of North Carolina; the Ragon Institute; the Icahn School of Medicine at Mt. Sinai; the University of Texas; Emory University; the Georgia Institute of Technology; the University of Rochester; the University of Melbourne; and the Mayo Clinic.

This project has been funded by the National Institute of Allergy and Infectious Diseases, a component of the NIH, Department of Health and Human Services, under contract 75N93019C00060.



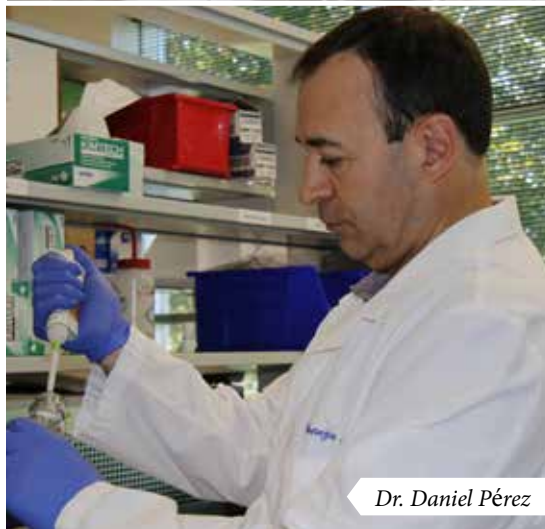
**A Poultry
POWERHOUSE**



Dr. Naola Ferguson-Noel



Dr. Holly Sellers



Dr. Daniel Pérez

by Alec Lee

COLLEGE STATION ROAD IS A MAJOR THOROUGHFARE in Athens, GA. It's a wide road that runs from the main University of Georgia campus to the more residential east side of town. Driving along in a haze at the start or end of the work day, commuters might not notice the hotbed of agricultural research they speed past. Among the other research centers, just past the aptly named Research Drive and largely concealed by trees, is the University of Georgia's internationally recognized Poultry Diagnostic and Research Center (PDRC).

Jointly founded in the mid-1950s by the College of Agriculture Experiment Stations and the School of Veterinary Medicine, the PDRC has worked to support the poultry industry in Georgia and around the world. Georgia is the largest producer of broiler chickens in the United States with over 7 billion pounds produced in the state in 2018. The US poultry industry has an economic impact of over \$495 billion with about 10% of this impact stemming from Georgia poultry production. All of that to say, poultry production is important to the country and the world—and the state of Georgia plays a large part in its success.

Globally, human populations are growing. And as our numbers increase so must our sources of food. The need for larger quantities of food and major progress in production technologies have resulted in a massive increase in the populations of chickens in the world since the 1960s. This and the rapid onset of the “backyard chicken” of urban and suburban America ultimately translate to a very busy team of researchers, clinicians, and educators at the PDRC.

Today, the PDRC serves multiple functions. As a part of the College of Veterinary Medicine's Department of Population Health, faculty in the PDRC have a hand in the development of students participating in the Master of Avian Medicine (MAM) and the online Master of Avian Health and Medicine (MAHM) programs. Clinicians within the Center also perform diagnostic services for poultry producers in the country and around the world. Whether in the field or in the lab, these members of the team work directly with poultry producers to solve issues plaguing the industry. In the PDRC Diagnostic Lab, faculty and students work collaboratively to develop cutting-edge diagnostics that they then employ to rapidly assess poultry health. And of course, there is the “R” in PDRC: research. The Center houses exceptional scientists devoted to solving issues related to anything from avian health and food safety to uncovering the mysteries of biological mechanisms allowing microbes to thrive.

continued on next page

The PDRC has been successful in many endeavors since its founding: developing vaccines for reovirus, fowl cholera, Newcastle disease, *Mycoplasma gallisepticum*, and infectious bronchitis virus (IBV); creating new methods for determining the serotypes of IBV and other microbes; and making discoveries that have led to further vaccine and identification methods around the world. PDRC director and head of the Department of Population Health Dr. Mark Jackwood describes the importance of the PDRC, “The Poultry Diagnostic and Research Center is the premier poultry learning, research and diagnostic center and is unique because we bring together outstanding scientists conducting basic and applied research to solve real-world poultry health problems, apply that information to the development of specialized and unique vaccines and diagnostic tests, and transfer that knowledge to the next generation of poultry veterinarians.”

Within the PDRC, there is a distinct diversity of background and training. Microbiologists work with food safety experts; clinical poultry veterinarians work alongside researchers developing the vaccines of tomorrow. It’s this level of collaboration that allows for the success of the center, and it’s all driven by a passion for discovery and support for the birds, producers, and the public.

Drs. Catherine Logue and Nicolle Barbieri come from two different parts of the world, Ireland and Brazil respectively, but they are brought together at the PDRC. Logue began her career as a meat microbiologist studying the microbes of beef cattle and lambs of Ireland. She has since moved around the United States focusing on turkeys in North Dakota, swine in Iowa, and now chickens in Georgia. In that time, her focus has changed, but she’s always kept her true passions at heart. Logue explains, “My interest has always been on the “bugs,” and I’m not particularly attached to any one of them. *Salmonella*, *Campylobacter*, *E. coli*, *Listeria*—I go where work is needed.” Barbieri, on the other hand, began her career by earning her bachelor’s degree in pharmacy and slowly shifted into microbiological studies of Avian Pathogenic *E. coli* (APEC). Speaking with Barbieri, her passion for the subject is almost palpable. She is largely charged by the “why” and “how” of the bacterium. Logue provides a justification for the enjoyment of their work,

“No two days are the same. It’s the passion for it that gets us out of bed every day.”

Drs. Daniel Pérez and Naola Ferguson-Noel bring further specialized knowledge to the PDRC. Pérez, originally hailing from Argentina, joined the PDRC in 2015. He specializes in molecular virology and the mechanisms of viral disease in animal models. More explicitly, his research focuses on the molecular aspects that allow viruses to jump from animal to human hosts, specifically influenza. Beginning his academic career studying biochemistry, Pérez says he “learned just enough about viruses” to follow a path in molecular virology, and as the Caswell S. Eidson Chair in Poultry Medicine and a Georgia Research Alliance Distinguished Investigator, one could say he has been successful. On working in the PDRC, Pérez says: “I have a sense that I am part of a big family in which each of us contribute to the best of our abilities with new knowledge to better tackle the issues surrounding diseases of poultry, food security and other animal and public health issues.” Ferguson-Noel, originally from Trinidad and Tobago, got her DVM and came to UGA for her MAM expecting to stay 18 months, but she has since earned her PhD in medical microbiology and is in her 21st year in Athens. She is known internationally for her work in diagnostics, epidemiology, pathogenicity, and vaccinology of *Mycoplasma*, specifically two poultry-infecting species: *M. gallisepticum* and *M. synoviae*. Mycoplasmas are unique bacteria lacking a cell wall thus making them resistant to antibiotics targeting cell wall synthesis, and infections with these bacteria are incurable. *M. gallisepticum* specifically affects production, causing chronic respiratory disease in numerous species of poultry, and it can be transmitted both to other chickens in the flock and to unborn chickens in eggs. Working in the PDRC allows Ferguson-Noel the ability to see these bacteria in the field and in the lab, and she appreciates the diversity and camaraderie of the center: “The PDRC is very diverse; we have many people from different regions of the US and different countries. It is a very friendly and welcoming environment. I think that we genuinely like spending time there and each other’s company and collaboration.”

Drs. Nikki Shariat and Maricarmen García are yet two more researchers in the Center, and, like several of their colleagues, they are



**“I love poultry medicine
because it’s pure investigation.”**

- DR. KAREN GROGAN

Back:
Drs. Nikki Shariat,
Maricarmen García,
Daniel Pérez
Middle:
Drs. Nicole Barbieri,
Mark Jackwood
Front:
Drs. Catherine Logue,
Karen Grogan



not veterinarians. Both are trained and seasoned microbiologists, each with distinct foci. Originally from the UK, Shariat has devoted a large portion of her career to mitigating the spread of and identifying *Salmonella*, including developing a tool to observe *Salmonella* and sub-type strains using clustered regularly interspaced short palindromic repeats, a part of the genome of prokaryotes known as CRISPRs, which act as an immune system for microbes. Speaking on working in food safety, she says, “Working in this field has been eye opening as it applies directly to public health. It reminds me every day that what I do is important.” García shares the sentiment, though her work focuses on the opposite end of the microbiological spectrum: viruses. García has been a member of the PDRC since 1997 and has largely focused on infectious laryngotracheitis virus (ILTV), a herpesvirus that can wreak havoc on unsuspecting poultry populations. Her work is fundamental to the world of poultry health, as she seeks to determine the efficacy of modern ILTV vaccines and perform the research to create the vaccines of tomorrow. The PDRC is the perfect place for this. She explains, “The beauty of this place is that you are not just in the lab working on these organisms, you are also listening. You are constantly hearing real stories from the field and seeing the real problems they face.”

Two sources of field information are Drs. Karen Grogan and Holly Sellers. Grogan brings a wealth of industry knowledge having served in several poultry veterinarian roles in the industry. Through the clinical service provided by the PDRC, she performs outreach and diagnostic service on the thousands of poultry farms in Georgia while teaching students in the MAM program the skills they will need as poultry veterinarians. In addition, she acts as the graduate coordinator for the MAM

and MAHM programs. She shares her rationale for working in poultry medicine, “I love poultry medicine because it’s pure investigation. In population health, you have to use different veterinary tools to solve the problem compared to dogs and cats. You’re not dealing with one animal—it’s thousands to millions.” Grogan found her way to poultry medicine through her academic interests, much like many of her colleagues. Not so for Sellers. Growing up in Texas, Sellers has been working with poultry since she was 15 years old. Working in a hatchery led to working in the lab, and now she serves as a diagnostic virologist, researcher, and educator. This year, she was named the UGA Inventor of the Year for her work in virology. And, in a way, it was her unique position in the PDRC that made it possible. She explains, “based on samples that come into the lab and the results we obtain, it’s easy to identify shifts or changes in viruses affecting flock health. With this information, we are also able to contribute to development of new vaccines when the need arises.” Her direct contact with the samples allowed her to develop new vaccine strains that will protect populations from these new viruses. And that idea is what inspires her: “There is always an opportunity to provide useful information back to the industry. I know that this information helps.”

In an industry that is growing and will continue to grow worldwide, the PDRC stands out as a leader in its success. Whether examining samples under a microscope or training the world’s next poultry veterinarians, the PDRC faculty, staff, and trainees do not leave a single stone left unturned. The research being performed here today, just like the research performed here for decades, has the potential to change the world for poultry and humans alike. It’s that momentum that keeps the PDRC and its members moving forward.



Donors Lauren Amos and Tyler Clayton endow new Bradbury Chair of Feline Health

Position focused on feline health only the second in the nation and first in the Southeast

THE COLLEGE OF VETERINARY MEDICINE recently received approval from the Board of Regents to create the Alison Bradbury Chair in Feline Health, one of only two such endowed professorships in the nation. Dr. Chad Schmiedt, professor of small animal surgery, will be the first to hold the position.

Schmiedt is internationally known for his work in feline renal disease and transplantation. He has published 53 journal articles over the last five years, 22 of which addressed feline topics and 10 of which focused specifically on feline renal disease and transplantation. In 2007, he combined his clinical and research interests to establish a renal transplantation program at the University of Georgia—and today it remains one of only three programs of its kind in the U.S. He is sought out for his expertise and has performed renal transplants on cats all over the world including some in Israel and Russia.

“Dr. Schmiedt is an excellent choice for this groundbreaking position,” said Lisa K. Nolan, dean of the College of Veterinary Medicine. “His outstanding accomplishments in feline research and treatment, along with his commitment to understanding and bettering the lives of the feline species, will undoubtedly move the CVM forward as a leader in the field of feline health.”

The position was endowed thanks to a gift from Lauren Amos and Tyler Clayton and named for Dr. Alison Bradbury, CVM class of 2004. Lauren and Tyler intend for the gift to elevate the field of feline health in Georgia, both in research and practice.

As the Bradbury chair, Dr. Schmiedt will continue to be engaged in research, teaching, and public service. Together with his team, he will work to identify new therapeutic targets which may provide new hope for sick cats, to expand studies on why and how feline diseases begin and progress, and to offer world-class patient care with currently available therapies.



Faculty focused on learning strategies

FOUR CVM FACULTY ATTENDED the Southeastern Veterinary Education Consortium (SEVEC) VetEd BootCamp at Virginia-Maryland College of Veterinary Medicine over the summer. Drs. Erin Beasley, Rachel Reed, Jo Smith, and Sherry Clouser participated in the two-day session that focused on topics such as facilitating student learning, incorporating active learning strategies in large class settings, providing useful feedback, and developing exam questions.

SEVEC includes colleges of veterinary medicine from UGA, North Carolina State University, Virginia-Maryland College of Veterinary Medicine, Lincoln Memorial University, University of Tennessee, and University of Florida.

CVM well represented at annual AAAP awards banquet

THE AMERICAN ASSOCIATION OF AVIAN PATHOLOGISTS

(AAAP) announced their 2019 award winners at the AVMA annual conference in Washington, DC. The CVM was well represented with winners:

- **Monique França**, assistant professor in the Department of Population Health, was recognized with the Bayer-Snoeyenbos New Investigator Award, a prize honoring an independent investigator who has made significant contributions to science during the first seven years of their career. Dr. França's research on avian pathology was also presented at the event's scientific symposium.
- **Hector Cervantes**, adjunct professor of avian medicine in the Department of Population Health, was conferred the Lasher-Bottorf Award. This award recognizes Dr. Cervantes for his vast contributions to poultry health in North America throughout his career. Dr. Cervantes is also an inductee into the Latin American Poultry Industry Hall of Fame and has served as the president of the AAAP and the American College of Poultry Veterinarians.
- **Carmen Jerry**, recent graduate from the CVM Department of Pathology residency program, and **Daniel Maekawa**, first-year doctoral student in the Comparative Biomedical Sciences program, were recipients of the Reed Rumsey Award, a research and merit-based prize presented to up to two students in a given year. Jerry and Maekawa were also asked to present their research on avian influenza and virology respectively.
- **Gustavo Schneiders** (DVM '16), a current graduate research assistant in the College of Agriculture and Environmental Science's Department of Poultry Science, was awarded the P.P. Levine Award. This award is presented to the senior author of the best paper published in the AAAP's international Journal, *Avian Diseases*, within the past year.

Three students were also presented scholarships: **Valerie Marciano**, fourth-year DVM student and doctoral student of pathology, and **Lydia Anderson**, fourth-year DVM student and doctoral student of infectious disease, were awarded the Merck Animal Health Scholarship; Valerie Marciano was also awarded the Association of Veterinarians in Egg Production (AVEP) Preceptorship Scholarship; and **Nicholas Brown** (DVM '19) was awarded the Kenneth E. Eskelund Preceptorship Scholarship.

CVM faculty issued patents

- Drs. Mark Jackwood and Jordan were issued a U.S. Utility Patent (Number **10,329,538**) titled *Live Attenuated Arkansas Serotype Bronchitis Virus Vaccine* by the University of Georgia Research Foundation, Inc. and Innovation Gateway.
- Drs. Ralph Tripp and Mark Tompkins were issued a U.S. Utility Patent (Number **10,137,188**) titled *Cell Lines for Virus Production and Methods of Use* from the University of Georgia Research Foundation, Inc. and Innovation Gateway.



You came out of retirement to come to the CVM. Tell us what motivated you to do that.

The motivation to come out of retirement was the opportunity to work with Dean Nolan again, as we did at Iowa State University. Her vision for the College is excellent, and she wants the CVM to be the best, while developing faculty, staff, students and programs. The position was also of interest to me—it gave me the opportunity to work in research and graduate affairs. My areas of expertise, hopefully, will be of value as we grow these programs.

So far, what has surprised you the most about UGA or not surprised you at all?

I have known about UGA for a number of years because I went up through the ranks at LSU and did collaborative projects with colleagues at the University. The surprise to me at this point in time is that renovations of classrooms and research facilities university-wide have not kept pace compared with other institutions. There also does not appear to be a building master plan. These same items are long-standing issues at other universities across the country; however, they are being addressed now at UGA and within the College. The quality of faculty, staff and students in the College does not surprise me. We have a number of high-quality programs related to our clinical, research, teaching, and service efforts, and they are only going to get better with time.

What do you hope will be your biggest accomplishment while you're here? How would you like to make an impact?

I would hope that my biggest accomplishment while serving in the position as associate dean will be a significant growth in supporting the research and graduate programs that will lead to us being ranked in the top two veterinary medicine colleges in the country. This is not an impossible task. We are developing, and will implement, both internal and external granting opportunities for faculty and students by building agency, company, and foundation connections and providing the appropriate training and support networks. Additionally, faculty affairs is being added to this position which will provide an excellent opportunity to assist faculty in their professional development and continued growth over their careers.

What do you think are the College's biggest opportunities going forward?

Our basic and clinical research and graduate student training opportunities are tremendous in a number of areas. With new hires that are going to result as the College increases the number of DVM students to 150 per class, the number of faculty will increase across departments. This provides an opportunity for the College to hire faculty in critical areas, strengthening our expertise and growing programs. It is an exciting time for the College, and it will take a collaborative effort to build our future.

DR. QUISENBERRY JOINED the CVM over the summer as interim associate dean of research and graduate affairs, filling the vacancy left by Harry Dickerson's retirement. She has over 20 years of higher education administration experience—serving as the vice president of research at Iowa State University and the dean of agriculture at both Virginia Tech and Montana State University.

You've worked at a lot of universities at all different levels—how do you feel that prepared you for what you're doing now? What was your favorite place/job?

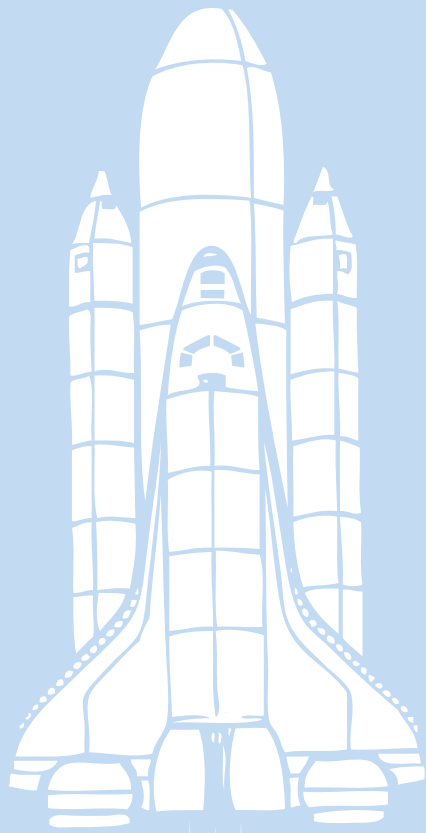
My duties and responsibilities as a tenured full professor and faculty member and subsequent administrator providing leadership as a department head, Dean of the College of Agriculture and Life Sciences, and Vice President for Research and Economic Development have provided me with a very diverse, knowledgeable, and encompassing foundation. I understand the importance and value of excellent teaching, research, and service programs to a College—from development with vision to implementation. These experiences have prepared me for what I am currently doing. The potential I see at UGA and in the College of Veterinary Medicine make this my favorite place, but I enjoyed Virginia Tech and being a dean there at a time of transition. The president and provost were excellent leaders with a vision for the University. As a college dean and with my colleagues, we were able to work together and increase significantly the quality of our programs, share facilities, and enable our faculty, staff, and students to excel and develop professionally. The University grew and increased our visibility, both from national and international perspectives. It was a very exciting period of time. Many of the same things are happening at UGA and in our College.



AVMA ALUMNI RECEPTION

AUGUST 28, 2019

At the annual AVMA Conference this year in Washington, DC, the college hosted an alumni reception. Over 75 alumni and friends gathered to reconnect and celebrate UGA!



*Viral Research in the
FINAL FRONTIER*

DR. RITESH TANDON BEGAN HIS CAREER as a veterinarian with a focus on large animal medicine. While he enjoyed it, he found that he wanted to know more. Why do some animals respond to medication as expected but a select few show no improvement? Why does the effective strength of medication vary between patients? Most importantly, what biological mechanisms are at play?

These questions led Tandon to UGA for his PhD where he joined Dr. Ray Kaplan in the Department of Infectious Diseases studying the effects of antiparasitic treatment on the genes of horse parasites (small strongyles) in Georgia and surrounding states. Tandon completed his doctoral degree in 2005.

“I became so interested in molecular genetics that I wanted to move to a system in which I could perform specific genetic manipulations and see their impact on the phenotype much more rapidly. So, I chose viruses,” states Tandon

When working with parasitic nematodes, one is limited to the amount of genetic manipulation that can be done in the laboratory. In viruses, researchers have more freedom as you can essentially tweak the full genome. In his own words, “I could modify basically any gene in the virus and watch to see what happens because of that change.”

Thus, since 2006, Tandon has thrown himself almost entirely into the study of virology. Currently an associate professor in the Department of Microbiology and Immunology at the University of Mississippi Medical Center, he has largely focused his research on a specific type of human-infecting herpesvirus: cytomegalovirus. While genital herpes (caused by one or both herpes simplex viruses—HSV-1 and HSV-2) is a commonly recognized sexually transmitted disease, there are still six other types of herpesviruses which infect humans. These viruses are the cause of several common conditions such as chicken pox and shingles (both varicella-zoster virus) and infectious mononucleosis (Epstein-Barr virus) to name a few. This also includes cytomegalovirus, which can cause a series of health issues in young children and immunocompromised individuals.

The scariest thing about these viruses, says Tandon, is that they can hide. He explains, “These viruses can infect people, and they stay in a hidden state. They aren’t very active, and they don’t cause problems unless certain conditions are met. Then the viruses come out of their hiding places and wreak havoc. Scientists are trying to understand what causes these viruses to come out of hiding.” That means that anyone can be infected with a herpesvirus and be completely asymptomatic. “About 80% of people in the United States are infected with at least one herpesvirus,” says Tandon, “and some with up to five or six. But only one of these viruses has a vaccine: varicella-zoster.”

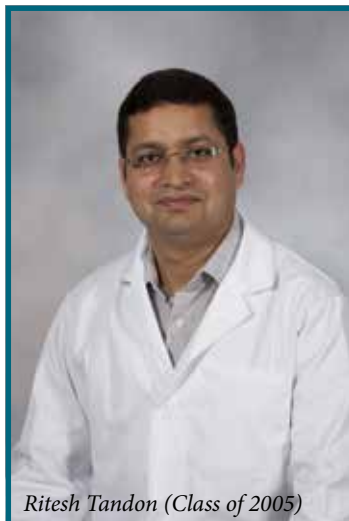
With his most recent grant, Tandon hopes to shed light on why and how these viruses reactivate. The experiment will focus on one specific patient group: astronauts.

The grant is provided as an extension to NASA’s next mission to the Moon—Artemis—named for the mythological goddess of the Moon and twin sister of Apollo. By 2024, NASA hopes to send the first woman to the Moon and create a lunar outpost called the Gateway. To support the life-science-related investigations of this mission, a series of 15 biology projects have been funded.

Tandon will be researching the effects of space radiation on cytomegalovirus reactivation and lytic replication. “There are three main reasons we believe these viruses reactivate in astronauts: microgravity, space radiation, and the stress of travel,” says Tandon. Anywhere from 30–60% of astronauts experience reactivation of at least one herpesvirus while in flight. And the longer the astronauts are in flight, the greater chances of virus reactivation and replication. Immune system function is also impacted by space flight, and the effects of this immune dysfunction become more evident as flight length increases. Dysfunction compounded with the reactivation of one or more herpesviruses puts astronauts at risk with symptoms ranging from a simple rash to organ failure, hearing loss, and blindness.

Tandon and his team believe that this type of research can teach us not only why these viruses reactivate but maybe even how to stop it. “This is basic science,” says Tandon, “and it’s this type of basic research that needs to be done.”

So much about herpesviruses is still unknown, and the only way to crack these mysteries is through research. “Without this kind of research and understanding of the mechanics of viruses, we would never advance clinical intervention and outcomes,” Tandon states. Any findings, even small discoveries, bring us closer to discovering how these viruses live and survive, and it’s this understanding that can lead us into the future of vaccines and a safer world for immunocompromised individuals and neonates—and possibly assist us as we begin to set our sights toward the stars.



Ritesh Tandon (Class of 2005)

“About 80% of people in the United States are infected with at least one herpesvirus”



UGA's 40 Under 40 includes CVM alumnus

THE UGA ALUMNI ASSOCIATION ANNOUNCED THEIR ANNUAL 40 UNDER 40 LIST celebrating young alumni leading the way in their industries. The 2019 list includes Jamie Brown, DVM class of 2007. He currently serves as chief of surgery at the Department of Defense LTC Daniel E. Holland Military Working Dog Hospital, overseeing surgical care of more than 800 dogs in training and a worldwide referral network for military and governmental agency working dogs.

Dr. Brown earned his bachelor's degree from the UGA College of Agriculture and Environmental Sciences in 2002, followed by his DVM in 2007. He entered the U.S. Army Veterinary Corps and has deployed to Mali, Africa, and Afghanistan in support of Operation Enduring Freedom, where he provided humanitarian support, coordinated evacuation plans for working dogs, and trained human emergency personnel for veterinary emergencies. He served five years supporting special operations forces including the 75th Ranger Regiment. As regimental veterinarian, he designed and implemented canine trauma training for handlers and medics and ensured deployment readiness for working dogs. His professional military education includes the Army Command and General Staff College.

Dr. Brown has already garnered numerous awards and decorations. In 2009, he became the first veterinarian to complete the Army's most demanding and prestigious leadership course—Ranger School—earning his Ranger Tab. Other awards include the Meritorious Service Medal, two Army Commendation Medals, a National Defense Service Medal, two Afghanistan Campaign Medals, a Global War on Terrorism Service Medal, the Army Service Ribbon, the NATO Medal, and the Parachutist Badge (or “jump wings”).

Alumni Notes

► **Peggy Hawkins** (DVM '86) was able to coat her youngest daughter, Caroline Hawkins, at this year's Class of 2023 CVM White Coat ceremony (see photo at right). What a thrill for this proud mom!

► **Todd Lavender** (DVM '90) was named president of animal hospitals and petcare services for VCA Animal Hospitals effective September. He has been with VCA for over 15 years, working most recently as the senior vice president of eastern hospital operations and previously as regional medical director, recruiting and professional relations director, and senior group vice president for VCA's eastern division.



Caroline Hawkins and her mom, Peggy Hawkins

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Lisa Herrmann

DESIGNER
Whitney Mathisen

PHOTOGRAPHY
Wingate Downs
Peter Frey
Christopher B. Herron
Whitney Mathisen

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Editor, *Aesculapian*
The University of Georgia
College of Veterinary Medicine
501 D.W. Brooks Drive
Athens, GA 30602-7371
or email: vetnews@uga.edu

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