FALL 2022

AUBURN VETERINARIAN

DETECTION CANINE SCIENCE INNOVATION TECHNOLOGY & EDUCATION
DCSITE
AUBURN UNIVERSITY

DCSITE

$24 MILLION HOMELAND SECURITY CONTRACT AWARDED TO CVM

Largest research contract in Auburn University history

AUBURN UNIVERSITY
College of Veterinary Medicine

BYRON BLAGBURN
Honored by CAPC for Advances in Parasitology

HOPE FOR CHILDREN
Progress in the Fight Against GM1 Gangliosidosis

BAILEY AWARDS
2022 Honorees

From the Dean

Excelling in a Growth Mindset

The stories of success from Auburn's College of Veterinary Medicine are simply too numerous to count. They range from individual accomplishments in the classroom and clinic to team successes in veterinary practice and research. In all cases, they depend on assembling highly functioning teams to provide the dedication, focus and tenacity it takes to solve complex problems. Well-built teams cultivate synergy, and synergy breeds success. I am reminded of the popular psychologist Carol Dweck and her characterization of a growth mindset. This quality is displayed repeatedly in highly productive people through innate curiosity and perseverance. Over the past 12 years, I've learned that a large part of a dean's job is to build and cultivate an institutional growth mindset. As Auburn University President Chris Roberts advises, everyone in the university must feel welcomed, valued, respected and engaged. Then, each person must ask themselves, "What am I doing today that will make me the best in the world in my field?" The stories in this issue are examples of world-class performance being achieved by exceptional individuals and teams in Auburn's College of Veterinary Medicine.

Detection Canine Science, Innovation, Technology, and Education (DCSITE) is an example of the power of sustained curiosity and perseverance over 30-plus years in canine detection science at Auburn. Now funded by the U.S. Department of Homeland Security as the largest research contract in Auburn University history, this program establishes our College of Veterinary Medicine as the nation's academic hub for advancing the science of canine detection, connecting 7 units on the Auburn campus with 14 partner institutions and national labs across the nation. This collaborative network will explore the sensitivity and versatility of dogs to detect harmful substances at concentrations well below the limits of all other detection systems.

Similarly, the Scott-Ritchey Research Center's sustained focus on curing GM1 gangliosidosis in cats and children continues to advance as a shining example of success in One Health. To date, 11 children have enrolled in a clinical trial at the National Institutes of Health using a treatment developed and perfected in cats by scientists in our college who have worked closely with collaborators at the University of Massachusetts. Their collective efforts to develop a unique viral vector and delivery strategy have resulted in the largest licensing contract for intellectual property in Auburn University history. Their work also represents the culmination of 50-plus years of intensive focus and perseverance.

As you read this issue, pay close attention to the exceptional people referenced throughout. They are the fuel of the engine that continues to make Auburn Veterinary Medicine great, and maintains our college as a pillar of research, innovation and education at Auburn University.

War Eagle!

Dean Calvin Johnson '86

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Explore the Auburn University College of Veterinary Medicine's new digital campus tour for a look inside today's CVM.

Virtually visit us today at **auburnvetmed.com**

AUBURN VETERINARIAN

IN THIS ISSUE
FALL 2022

DCSITE

HEADQUARTERED AT AUBURN

TO BE NATIONAL CENTER FOR DETECTION CANINE SCIENCE

by Mike Jernigan

For more than 30 years, the Auburn University College of Veterinary Medicine's Canine Performance Sciences program has been recognized as an international leader in the field of detection canine research and innovation, working to find new ways to improve upon and leverage the olfactory abilities of dogs to detect everything from disease to drugs to explosives.

That expertise was a key factor when Auburn was recently awarded a contract by the U.S. Department of Homeland Security (DHS) Science and Technology Directorate (S&T) as the recipient of a contract that, sustained over a 5-year period, will be the single largest research contract awarded to Auburn University at almost $24 million. The contract supports research in the recently established Auburn University Detection Canine Science, Innovation, Technology and Education program, also known as DCSITE, which will serve the DHS S&T mission as the primary resource for expertise in all areas of detection canine sciences. This multidisciplinary program will promote continual, science-based and science-driven improvement in and development of best practices required for domestic production of detection canines needed to identify and mitigate emerging threats. It will also centralize research, innovation, training and outreach efforts in the detection canine sciences field.

"Auburn's CPS program has become a recognized center of excellence," said Dr. Frank "Skip" Bartol, College of Veterinary Medicine associate dean for research and graduate studies and DCSITE program project investigator. "From original efforts aimed broadly at working dog populations, the program has focused over the last 15 years on detection canine sciences — developing and refining breeding, development and training protocols for dogs tasked to detect many types of threats to national security and public safety."

As the variety and number of security threats have increased in recent years, detection canines have proven to be an increasingly important counterterrorism tool in support of the DHS S&T mission to safeguard national security and public safety. They are widely deployed in airports, cargo and mail facilities and with law enforcement for real-time, advanced threat detection. No other detection technology currently available can locate and track-to-source small quantity

Chief Canine Instructor Terrence Fischer and Auburn Dog Mowgli

odors in real time, providing critical threat intelligence and enabling rapid deployment of countermeasures to reduce risk.

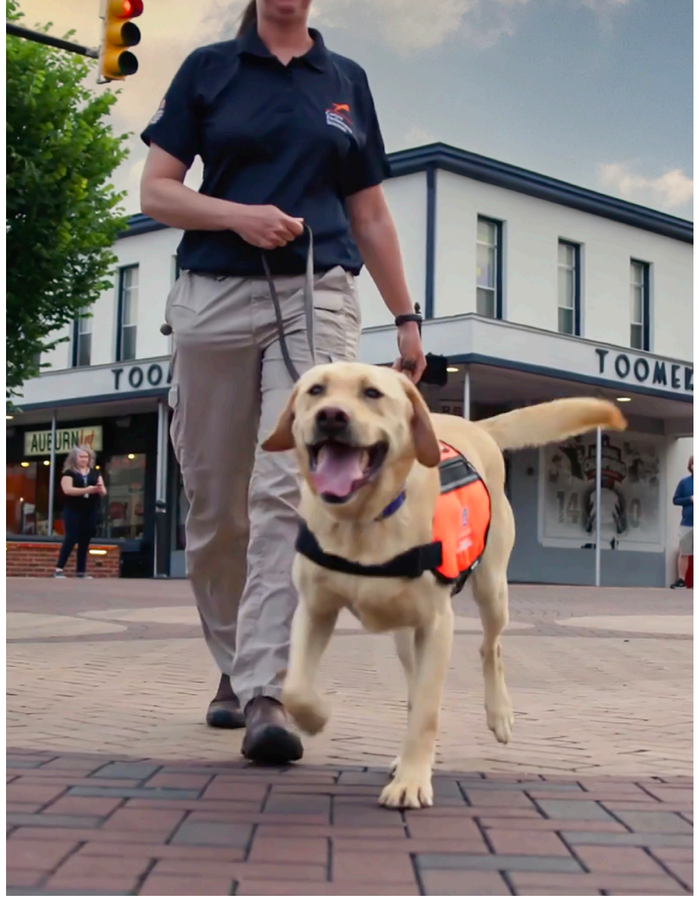
While a dog's nose may seem low tech to the average person, the science behind detection canines is remarkably complex. Due to this complexity, DCSITE aims to integrate the best scientific practices in analytical chemistry, genetics, genomics, reproduction, veterinary and sports medicine, olfactory neuroscience, behavior and cognition, metrology and engineering to accomplish its mission. Bartol said DCSITE will utilize that wide range of expertise to focus on three key components — the dogs, operational dynamics and targets of detection.

Without the dogs and their amazing olfactory abilities, there would be no DCSITE. But there are many factors that affect the performance of detector dogs on the front lines at airports or in law enforcement working environments. Those components include — but are certainly not limited to — the animal's overall health, the genetics and phenomics that define its olfactory abilities and performance capabilities, and the training that best prepares these dogs to focus on the task at hand, which is the detection of specific threats.

"Dogs have evolved over millions of years to use their sense of smell for everything from detecting prey to identifying friend and foe," said Bartol. "Their perception of the world is driven to a significant degree by their highly evolved sense of smell. So the key to producing successful detection canines is to breed and train puppies in a way that allows them to best take advantage of such remarkable evolutionary advantages."

The second component of DCSITE, operational dynamics, also includes training techniques and standards, but focuses more on the critical interaction between the dog and its human trainers and handlers. This component will develop ways to better ensure that handlers on the front line can communicate with their dogs effectively — in other words, that the handlers interpret correctly what their canine partners are trying to tell them.

"No mechanical device is more sensitive than a canine nose," Bartol stated, "but dogs obviously can't talk. Effective communication between dogs and handlers can sometimes be the weakest link in the chain, so it's important that ways be found to constantly improve on this critical human-animal interface. That means developing more effective training methods for handlers and their dogs, or even developing technology and artificial intelligence to assist them."



Finally, a third major focus of DCSITE will be on the targets of detection — the hazardous materials that are often the weapons of choice for terrorists to inflict harm. It's an incredibly complex area, involving everything from analyzing the chemical or biological composition of actual and potential threat agents to studying the properties of liquids or vapors in various environmental conditions. Such knowledge is not only critical to effective response in emergency situations, but also in preparing to avoid such situations through safe, but realistic training.

"It is important that detector dogs be trained on real target odors," noted Bartol. "This can be challenging, since target odors are emitted by potentially dangerous substances. Development and validation of training aids that protect trainers and dogs while training on real target odors represents another important focus of the program."

On a similar note, DCSITE was created as a resource to ensure the nation does everything possible to prepare for potential threats and, while it will be anchored in the College of Veterinary Medicine and led by the CPS program, the endeavor also represents a collaborative effort involving subject matter experts from multiple colleges, as well as supporting educational and technical units at Auburn. DCSITE's capabilities and national footprint will be further leveraged through targeted external partnerships, involving subject matter experts at several U.S. academic institutions, private research enterprises and national laboratories.

> "CPS is the foundation, but it's important to note this is both a university-wide and nationwide effort," Bartol emphasized. "DCSITE would not exist without Auburn's recognized expertise across a variety of disciplines. No single Auburn college or support unit could pull it off alone. But the dimensions of the task are so enormous and the work is so important that not even one university could encompass it all. That's why the involvement of other universities, research facilities and laboratories around the country is critical. We are all working together to make DCSITE a national resource with a vital role to play in America's security."

TIGER GIVING DAY
FEBRUARY 2022

THANK YOU
FOR YOUR SUPPORT

With Your Help

we not only met, but exceeded our goals for all five **2022 Tiger Giving Day** projects supporting Vet Med programs. Among all projects across the entire AU campus, Tiger Giving Day raised funds from more than 5,000 donors for a record-breaking 51 projects, making Auburn's seventh giving day the most successful.

Your gifts helped the Canine Performance Sciences program "raise a hero," the Gene Machine fight to help sisters, daughters, wives, moms and friends from falling victim to breast cancer, the Southeastern Raptor Center by sponsoring the War Eagle flight on game day, the small animal hospital cover pet emergency care for families in need and the Scott-Ritchey Research Center accelerate gene therapy for devastating diseases.

It is alumni and friends like you who make a difference in the lives of everyone here at the College of Veterinary Medicine. Thank you for your support of Auburn Vet Med on Tiger Giving Day and every day.

AUBURN VET MED TOTAL RAISED

ACTUAL $141,522 // 135% OF GOAL // GOAL: $105,000

TigerGiving.org

With Your Help
WE DID IT!

Canine Performance Sciences

Raise a Hero

$43,997

126%

Raised toward our $35,000 goal
414 Donors

The Canine Performance Sciences, or CPS, program in Auburn's College of Veterinary Medicine advances and innovates canine detection technology to increase the capabilities of detection dogs worldwide. This Tiger Giving Day, we raised funds to "Help Raise a Hero." Raising a hero is a costly endeavor. While they are in our program, our puppies eat more than 23,000 pounds of food and the cost to raise one puppy is more than $18,000. These donations will allow us to purchase advanced technologies and critical supplies to help us improve training capabilities, advance cognitive research, streamline field data collection and continue to support our local law enforcement partners.

See the full list of projects at tigergiving.org

The Gene Machine

Fight Breast Cancer with the Gene Machine

$15,207

152%

Raised toward our $10,000 goal
210 Donors

The Gene Machine travels all over Alabama, often to areas that are medically underserved, reaching out to individuals and family members whose loved ones have been affected by breast cancer. We provide BRCA1 and 2 gene screening and educate communities about cancer risk factors. We've met thousands of people at community events, cancer walks, health fairs, cancer luncheons and even parades. We're searching for more knowledge and a better understanding of what puts people at risk. The funds raised this Tiger Giving Day are a step in the fight to help sisters, daughters, wives, moms and friends from falling victim to breast cancer.

Scott-Ritchey Research Center

Accelerate Gene Therapy for Devastating Diseases

$22,350

112%

Raised toward our $20,000 goal
242 Donors

At the Scott-Ritchey Research Center, we are working every day to improve quality of life for people and animals. Biomedical scientists in the Auburn College of Veterinary Medicine are investigating ways to treat genetic and neurologic diseases, including cancer. In fact, a delivery platform was developed by Auburn researchers that allows for the delivery of gene-based interventions so these treatments can be delivered directly to the brain. From the rare GM1 gangliosidosis and Tay-Sachs diseases, to glioma, Japanese encephalitis, Alzheimer's and even rabies, the work happening at Auburn could ultimately affect humans and animals worldwide. And time is essential. This Tiger Giving Day, we raised funds to purchase a gene therapy tool called the Stunner that will help our researchers save time. The Stunner is a piece of equipment specifically designed to characterize viruses and nanoparticles to aid in quality control of gene therapies.

Southeastern Raptor Center

Sponsor the War Eagle Flight on Game Day

$35,165

141%

Raised toward our $25,000 Goal
239 Donors

The Southeastern Raptor Center is home to many species of rehabilitated raptors. The SRC team educates the public about different raptor species and rehabilitates injured and orphaned birds brought to the center for care. Helping the Raptor Center meet these critical missions is why Auburn fans and friends were offered the special opportunity to help sponsor one of only eight pregame eagle flights during the 2022 football season. Each sponsorship directly supports the rehabilitation and education missions of the center through facility upgrades, food for resident raptors, medical supplies and other mission-critical needs.

Small Animal Teaching Hospital

Fund Pet Emergency Care for Families in Need

$24,803

155%

Raised toward our $15,000 goal
285 Donors

When pet emergencies happen, it's not only stressful for pets and their owners, but can also be costly, finding owners unprepared for the financial burden. Sometimes grant funds may be available from outside agencies, but they can take days for application processing and often can't be used for emergency care. This Tiger Giving Day, Auburn Vet Med raised funds to help offset the cost of emergency treatment when small animal owners need financial assistance. The Patient Emergency Treatment, or PET Fund, will provide financial assistance to our clients who cannot afford emergency care for their sick or injured pet.

CAPC President Dr. Rick Marrinson (left) presents award to Blagburn (right)

— COMPANION ANIMAL PARASITE COUNCIL HONORS —

BYRON BLAGBURN

WITH LIFETIME ACHIEVEMENT AWARD

by Mike Jernigan

The Companion Animal Parasite Council, or CAPC, recently recognized Dr. Byron Blagburn, Distinguished University Professor in Auburn's College of Veterinary Medicine and a CAPC founding board member, for his contributions to veterinary medicine and his outstanding career achievements in the field of parasitology. Founded in 2002, CAPC is an independent, nonprofit organization dedicated to increasing awareness of the threat parasites present to pets and their owners.

Blagburn, who received a master's degree in biological sciences from Andrews University and doctorate in parasitology from the University of Illinois, was cited for his role in helping to create CAPC's Prevalence Maps, which are updated monthly and provide a county-by-county diagnosis of the prevalence of many parasitic and viral diseases of both pets and people. The maps have been widely used by veterinary practitioners and researchers to better understand and predict the regional threat of diseases over the last decade since their creation.

In addition, Blagburn was recognized for his part in the establishment of the CAPC parasitology practice guidelines. These guidelines have become a primary resource for veterinary practitioners in the prevention, diagnosis and treatment of parasitic diseases in practice and have set the standard for the profession.

Blagburn was also honored for helping establish CAPC as a national leader in the forecasting of parasites in pets. The organization's monthly, county-by-county forecasts for major parasitic diseases are used by TV broadcasts, publications and social media to alert pet owners across the nation to the threat of parasitic diseases in their area.

In addition to instruction at Auburn, Blagburn directs graduate student research and serves as director of the clinical parasitology diagnostic laboratory. He is a past president of the American Association of Veterinary Parasitologists, the Southern Conference on Animal Parasites and the Southeastern Society of Parasitologists. A previous recipient of the Pfizer Award for Research Excellence, he has served as an associate editor for the *Journal of Parasitology* and on the editorial boards of *Veterinary Parasitology*, the *Journal of Eukaryotic Microbiology* and *Veterinary Therapeutics*.

Blagburn is also a previous recipient of the American Association of Veterinary Parasitologists Distinguished Veterinary Parasitologist Award and the Teacher of the Year Award from the Auburn Student Government Association.

— FARM ANIMAL HOSPITAL TEAM IS —

NOT KIDDING AROUND

by Abbi Gardner

When a beloved Nigerian Dwarf dairy goat named Pig was having difficulty delivering her two kids, the Auburn Vet Med Farm Animal Hospital team stepped in to save the day. This was Pig's first pregnancy and everything had been going smoothly until it came time for her to give birth. Pig's owner, Jena Middleton, began to notice that she was not progressing the way her other goats had in the past. Middleton realized that both Pig and her kids' lives were in jeopardy, so she made the critical decision to bring Pig to the Large Animal Hospital for treatment. The team performed an emergency C-section and safely delivered Pig's two kids. Pig and her kids, who were appropriately named Bacon Bits and Pork Rind, are happy and healthy.

> "I am forever grateful to the Auburn University College of Veterinary Medicine — the students, staff and doctors. They are hands-down the most pleasant, knowledgeable, caring and best group of folks I have ever met. They gave my goat, Pig, the best care imaginable and sent me home with three blessings."
>
> *Jena Middleton*

Third-year Auburn DVM students on Farm Animal rotation with Pig, Pork Rind and Bacon Bits.

— SMALL ANIMAL SPOTLIGHT —

YOU'RE OUR BOY, BLUE

by Abbi Gardner

Blue is a gentle giant whose size can only be matched by his enthusiasm for life. The first sign of trouble began in the fall of 2021 when a lump developed on Blue's snout. Blue's owner, Josh Black, feared the worst was in store for his otherwise healthy 5-year-old Great Dane. Josh turned to Auburn Vet Med's Comprehensive Cancer Center for guidance. Blue was diagnosed with oral fibrosarcoma. The oncology team determined that surgery was not a possibility. But thankfully there was an alternative treatment option for Blue. Targeted radiation therapy is a non-invasive alternative to traditional surgery that accurately targets tumors and other abnormalities without an incision or the need for recovery in a hospital setting. Blue completed two rounds of targeted radiation therapy with Auburn's state-of-the-art linear accelerator. Although Blue's fight with cancer is still ongoing, the treatment that he received at Auburn will give him better quality of life and hopefully many more years of bringing joy to everyone that is lucky enough to know him.

Head of Radiology Dr. Greg Almond (left) and Radiation Oncologist Dr. Larissa Castro with Blue

AUBURN RESEARCH PROVIDING HOPE FOR CHILDREN WITH DEADLY DISEASE

by Charles Martin

Jojo celebrates her birthday with her friend, Brandon.

Jojo is experiencing life like most 13-year-old girls: staying up later, watching movies, shopping and baking cookies. And now she has more liberty, but it's a different kind of freedom.

She uses a walker, but she and her family see it as freedom, a remarkable accomplishment compared to her six months of not being able to walk prior to receiving a gene therapy treatment for her rare disease.

Jojo has GM1 gangliosidosis — an inherited disorder that progressively destroys nerve cells in the brain and spinal cord and is estimated to occur in one in 100,000 to 200,000 newborns. But her mother sees steady improvement in Jojo, who was the first child to participate in a clinical trial that has its origin in Auburn University research.

> **"Jojo was very ill when she was treated with gene therapy in 2019. She had great trouble swallowing and eating, and she wasn't able to walk," said Jojo's mother, a family practice physician in Los Angeles. "Since treatment, Jojo eats normally and is at a normal weight for her age. She still has some challenges, but she's made great improvements in many ways."**

The trial's gene therapy treatment was created at Auburn's College of Veterinary Medicine, where scientists for several decades have researched treatments to improve and extend the lives of cats affected by GM1 gangliosidosis.

GM1 gangliosidosis is caused by mutations in a gene known as GLB1, thus impairing production of the enzyme, beta-galactosidase. The treatment, administered intravenously, delivers a functional copy of the GLB1 gene that improves the enzyme activity, leading to improved neuromuscular function.

Auburn worked with the University of Massachusetts Medical School and the National Institutes of Health to move the research into helping children suffering from the disease. In 2019, Jojo became the first child to receive the one-dose treatment at NIH in Bethesda, Maryland.

"We had hoped to stop the disease's progression, but she is showing real signs of improvement," said Dr. Doug Martin, director of Auburn's Scott-Ritchey Research Center in the College of Veterinary Medicine and a professor in the Department of Anatomy, Physiology and Pharmacology.

Martin said the treatment is very promising because it has worked well in GM1 mice and cats, and is delivered by a single IV injection that takes less than an hour.

"As this trial and new trials progress, and as more patients are treated, we'll have a good idea of whether the gene therapy helps children as much as it has helped the animals," he said. "This is certainly what we're hoping for."

The NIH trial, which includes 11 children, is the first of three trials underway.

"Jojo actually was part of a sort of 'pre-clinical' trial at NIH," Martin said. "Her condition was so poor at first that she was not qualified for the actual trial, but now she has improved enough with treatment that she would qualify."

Clinical trials are being conducted also at the University of California-Irvine via spinal fluid injection and the University of Pennsylvania.

"Our research at Auburn has shown that GM1 in cats can be treated, so we are fortunate more institutions are seeing the possibility of moving it into cures for children."

Martin and his fellow Auburn researchers are moving forward with additional research as well, hoping to add to the knowledge base for GM1 and the related GM2 disease called Tay Sachs. They are testing higher doses of the treatment to help cats with GM1 and are checking the toxicity and clinical effects.

"This will provide valuable information to veterinarians and human physicians as we fight these diseases," he said. "Additionally, because there are similarities in the pathology of GM1 gangliosidosis and Alzheimer's disease, it is possible that the same platform being used for GM1 could someday be used to treat Alzheimer's."

For GM2, Auburn is testing a new generation of vector to be administered intravenously or in spinal fluid. The current treatment for GM2 is given by an injection into the brain, but researchers are seeking a less invasive method.

HISTORY OF AUBURN'S GM1 RESEARCH

Martin is leading Auburn's effort which was started by his mentor, Professor Emeritus Henry Baker, in the 1970s. To move the treatment toward human medicine, Martin developed a partnership with UMass Medical School researchers Drs. Miguel Sena-Esteves and Heather Gray-Edwards, an Auburn graduate. They have worked collaboratively for 15 years, combining animal and human medicine studies to treat rare diseases that affect both animals and humans.

For Auburn graduates Sara and Michael Heatherly of Opelika, Alabama, whose son Porter was the first known case of GM1 in Alabama and died in 2016, the knowledge of a treatment is one of mixed emotions.

> **"We are excited to know there is hope for the future of children diagnosed with GM1," Michael Heatherly said. "We are thankful for everyone who has dedicated their time, resources and careers to move this treatment forward.**
>
> **"We understood early on the research would not help Porter, but we wanted to help spread the word of the research and the progress that was being made."**

Parents of a child with GM1 each carry one copy of the mutated gene, but they typically do not show signs and symptoms of the condition.

To honor Porter and his family — who held fundraisers for several years to support Auburn's research — the Scott-Ritchey Research Center incorporated Porter's likeness in a creative identity for the center.

SCOTT RITCHEY RESEARCH CENTER

— AUBURN COLLEGE OF VETERINARY MEDICINE —

HONORS

WILFORD S. BAILEY | 20/22 | AWARD RECIPIENTS

by Mike Jernigan

Pictured (from left): Clayton Hilton, Lela Lofton accepting on behalf of her late husband Robert Lofton, Calvin Johnson and Gregory Daniel.

Three outstanding alumni of Auburn University's College of Veterinary Medicine — Clayton Hilton '97, Gregory Daniel '83 and the late Robert Lofton '72 — were honored as the 2022 winners of the Wilford S. Bailey Distinguished Alumni Awards during a ceremony April 7.

The award is the highest honor given to Auburn College of Veterinary Medicine alumni to recognize their professional accomplishments in veterinary medicine, outstanding contributions to their communities and the overall advancement of animal and human health.

It is named to honor the late Wilford S. Bailey, who held a 50-year continuous faculty appointment at Auburn, serving in positions ranging from veterinary instructor to university president. A 1942 graduate of the college, Bailey was the first recipient of the college's Distinguished Alumnus Award. Following his death in 2000, the award was named in his honor. Awardees are recognized in three areas of eligibility: public policy and research, academia and private practice.

Public policy and research: Clayton Hilton

Clayton Hilton was named the 2022 Bailey Award recipient in public policy and research. He earned both a bachelor's degree in wildlife biology and a master's degree in wildlife ecology at Auburn before graduating with a doctor of veterinary medicine in 1997. He later served as staff veterinarian at the Montgomery Zoo and on the faculty at Auburn before moving to Texas, where he held several positions including veterinarian at the Abilene Zoological Park. In 2008, he returned to Alabama as staff veterinarian at the Birmingham Zoo and held several positions there before joining the faculty at Texas A&M University-Kingsville in 2014.

Hilton is currently professor and Jo and Bruce Gunn Endowed Director of Veterinary Technology in the Department of Animal Science and Veterinary Technology at Texas A&M University-Kingsville. In addition, he serves as wildlife veterinarian at the Caesar Kleberg Wildlife Research Institute and unit manager at the Alkek Captive Ungulate Research Facility, both in Kingsville.

Hilton has been honored with various awards for his many achievements, including the American Association of Zoo Veterinarians Presidential Service Award in 2020 and the Dick and Mary Lewis Kleberg College of Agriculture, Natural Resources and Human Sciences Junior Faculty Teaching Award in 2017.

"Dr. Hilton's work as a wildlife veterinarian has included many important roles in zoos and wildlife research institutes," said Calvin Johnson, Auburn veterinary dean. "His expertise with wildlife in captivity and at the human-animal interface has been vital to the development of sound policy to protect their health and welfare. He is an excellent practitioner of the One Health philosophy."

Academia: Gregory Daniel

Gregory Daniel was named the 2022 Bailey Award recipient in academia. He has also been recognized for outstanding service by both the Alabama Veterinary Medical Association and the Tennessee Valley Authority.

He received a bachelor's degree in animal science from the University of Kentucky before earning a doctor of veterinary medicine at Auburn in 1983, a master's degree from the University of Illinois in 1998 and achieving board certification by the American College of Veterinary Radiology in 1987.

That same year, Daniel was appointed to the faculty of the University of Tennessee as an assistant professor of radiology in the Department of Urban Practice and was later appointed director of radiological services in the Department of Small Animal Clinical Sciences. Since 2007, he has served as professor of radiology in the Department of Small Animal Clinical Sciences at the Virginia-Maryland College of Veterinary Medicine at Virginia Tech University and as department head 2007-17. He held a joint appointment as professor in the Department of Basic Science Education at Virginia Tech's Carilion School of Medicine 2009-19. Daniel also served as interim dean of the Virginia-Maryland College of Veterinary Medicine at Virginia Tech 2017-20.

Daniel's teaching and research focus is on nuclear medicine and diagnostic imaging. Over the course of his academic service, he has published more than 120 peer-reviewed articles, authored multiple book chapters and edited one textbook. He has been recognized with numerous honors and awards, including the Auburn University Young Achiever Award, the Outstanding Faculty Award from the Tennessee Veterinary Medical Association, the Distinguished Virginia Veterinarian Award from the Virginia Veterinary Medical Association, the Virginia and Edward Thompson Award from the Virginia-Maryland College of Veterinary Medicine, the Pfizer Award for Research Excellence and the Chancellor's Award for Research Excellence from the University of Tennessee.

"Dr. Daniel is an exceptionally skilled and versatile academic leader, having served as a faculty member, service director, department head and interim dean over the course of his career," said Johnson. "His service in academia has connected extensively with private practice, organized veterinary medicine and biomedical research, and he has received some of the nation's most prestigious awards for excellence in each of these domains. His dedication to veterinary students and education are perfectly aligned with Dr. Bailey's legacy and position him as a worthy recipient of this award."

Private practice: Robert Lofton

The late Robert Lofton was named the 2022 Bailey Award recipient in private practice. Lofton earned a bachelor's degree in animal science from Louisiana State University before completing a doctor of veterinary medicine from Auburn in 1972. Following graduation, he founded University Animal Clinic in Lake Charles, Louisiana, where he practiced for almost four decades. He joined the Auburn faculty in 2013 as an assistant clinical professor in the Department of Clinical Sciences. During his five-year tenure at Auburn, he was a principal developer of the Auburn University Veterinary Clinic, the Auburn Veterinary Academy and the Hoerlein Hall Spay-Neuter Program.

Lofton, Louisiana Veterinarian of the Year in 1999 and a former chair of the Veterinary Advisory Council at Auburn, served on the board of directors of the American Animal Hospital Association 2003-08. He was also a Diamond Level Member of the Auburn Vet Med Centennial Club. He and his wife, Lela, established the Robert M. and Lela Lofton Endowed Scholarship fund in 2017. He was also elected to the Opelika, Alabama, City Council in 2020. Lofton fought valiantly against a rapidly progressing disease in 2021 and passed away in January 2022.

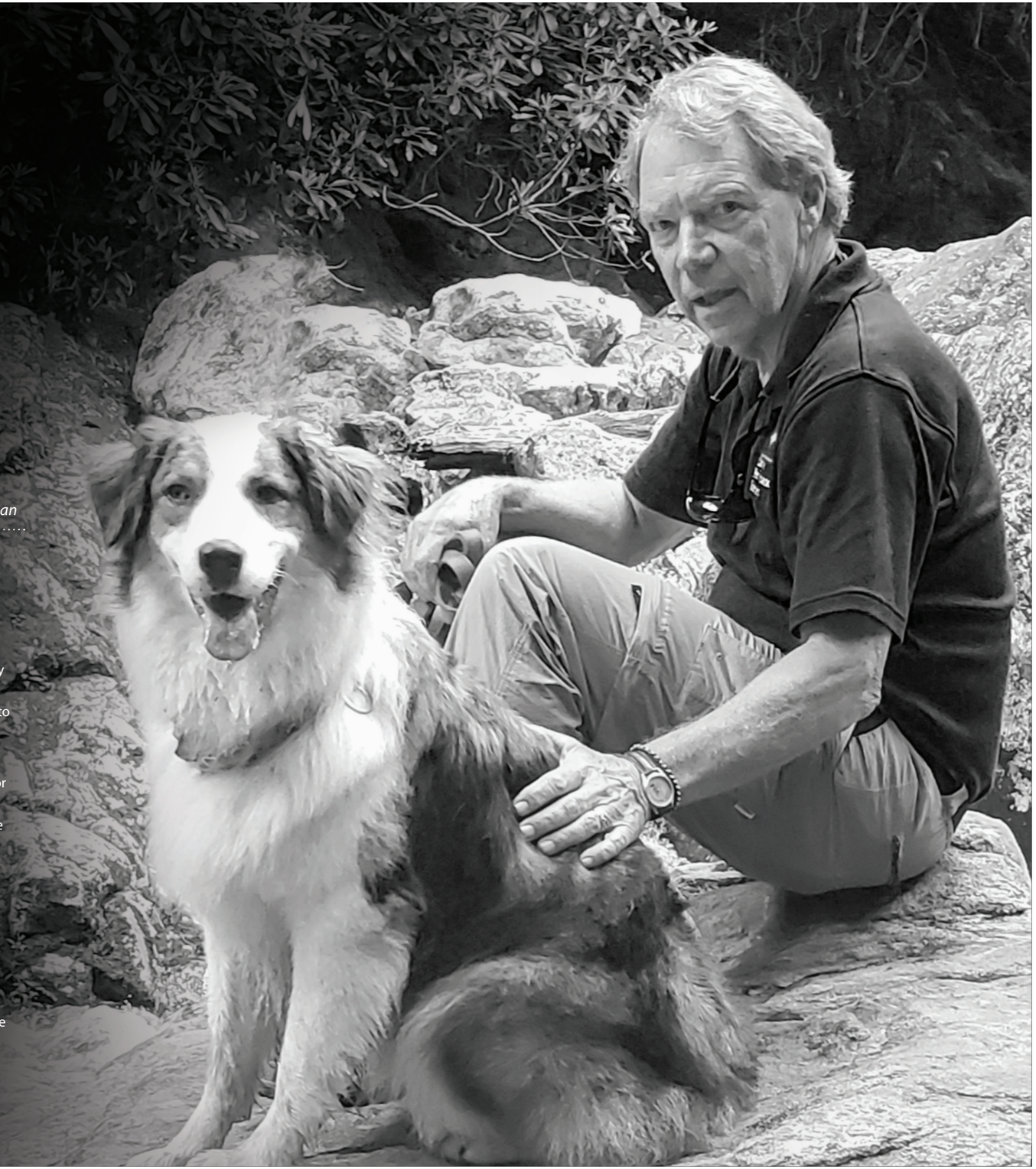
"Dr. Lofton was a truly inspiring graduate of our college," said Johnson. "He derived great joy from teaching and his contributions to Auburn will last for many years through his students' success. Although his life was shortened by a tragic disease, Dr. Lofton left a permanent mark on countless people who had the good fortune of learning from and working alongside him."

— REMEMBERING —

ROBERT LOFTON

FOR HIS LOVE OF PEOPLE AND PETS

by Mike Jernigan



If there is one thing Robert Lofton's family and friends seem to agree on, it's that the longtime Louisiana veterinarian, later a teacher and even an Opelika politician, never met a stranger. At least if he did, they would not be strangers for long.

"He was extremely personable and he loved people," recalled Sally Phillips of her brother-in-law, who passed at age 75 earlier this year after a long battle with amyotrophic lateral sclerosis, or ALS.

"We often laughed and said if he could get a fence post to talk to him, in a few minutes he would know where the tree came from and how it grew."

After earning a DVM at Auburn, the native Louisianian worked briefly in Roanoke, Virginia, before moving to Lake Charles, Louisiana, and opening University Animal Clinic, where he would practice small animal medicine for the next 40 years. Following his retirement, he and his wife, Lela, moved next to Opelika, where he fulfilled a longtime dream of teaching — sharing the accumulated knowledge of his long career with Auburn DVM students. At Auburn, he worked with fourth-year students in the Community Practice, while continuing to work with clients as well.

"Dr. Lofton's perspective as an experienced private practitioner and practice owner was embraced by students in the community practice rotation as being excellent training for a career in small animal practice," said Dean Calvin Johnson. "He was committed to his clients and their pets, brought a practitioner's perspective to our curriculum and his standard of care was very high."

After retiring a second time, Lofton's love of people and desire for service led him to successfully run for city council in Opelika. He was elected in 2020 and also served as the council representative on the city's planning commission, but was unable to finish his term due to his declining health. He resigned from the council in December 2021 while continuing to support the college in numerous ways.

"Dr. Lofton and Lela were always very supportive of the college," added Johnson. "They were excited about its future, and their enthusiasm lifted students and gave them a sense of optimism for their own careers. His legacy in the veterinary profession will live on through the lives of the many students he trained over the course of his fine career."

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FEATURED SPEAKERS

2022 ANNUAL CONFERENCE

AND J.T. VAUGHAN EQUINE CONFERENCE

Rick Alleman, DVM, PhD, DABVP, DACVP

Dr. Alleman is CEO of Lighthouse Veterinary Consultants and previously practiced companion animal medicine and surgery for nine years in New Orleans. He is a Diplomate of both the American Board of Veterinary Practitioners (companion animal practice) and the American College of Veterinary Pathologists (clinical pathology) and holds a PhD in the molecular biology of vector-borne diseases.

Katie Luke Broaddus, DVM

Dr. Broaddus is staff veterinarian at the Austin, Texas, Humane Society, which cares for more than 11,000 animals each year. A former member of the board of directors of the Association of Shelter Veterinarians, she is heavily involved with the shelter and disaster preparedness committees of the Texas VMA and is also a member of the AVMA and AAWA.

Robert Gukich, DVM

Dr. Gukich is owner of Lake Wales Large Animal Services, which provides veterinary services for more than 50,000 cattle in Florida, and G7 Ranch, home to 1,300 cattle on 6,500 acres. He has field experience in high immune response and trichomoniasis research and is a founding member of Florida Cattle Ranchers, LLC.

Lee Jones, DVM

Dr. Jones is an associate professor in the Department of Population Health, Food Animal Health and Management at the University of Georgia College of Veterinary Medicine. He currently provides veterinary services to farm clients, including herd health and reproductive services such as bull breeding, soundness evaluations and embryo transfer.

Richard Mansmann, DVM, DACVIM-LA

Dr. Mansmann is a clinical professor emeritus of equine podiatry in the College of Veterinary Medicine at North Carolina State University and also operates a private practice. He is an American Farriers' Journal Veterinarians' International Hall of Fame member, ACVIM-LA Honorary Diplomate and Honor Roll Member of the American Association of Equine Practitioners.

Gary Oswald, DVM, DACVIM

Dr. Oswald is COO of Tampa Bay Veterinary Medical Consultants and an adjunct clinical faculty member in the Colorado State University College of Veterinary Medicine. He is a Diplomate of the American College of Veterinary Internal Medicine and founding member of Tampa Bay Veterinary Specialists and Emergency Care Center in Clearwater, Florida, serving as lead medical internist and COO.

Laura Snyder, DVM, DACVP

Dr. Snyder is a clinical pathologist serving as subject matter expert for lymphoproliferative disorders and cancer diagnostics and heads the clinical flow cytometry service at IDEXX Laboratories. She is a Diplomate of the American College of Veterinary Pathologists and, prior to joining IDEXX, worked in academia and a private diagnostic laboratory based in a large specialty hospital.

Julie Squires
Certified Compassion Fatigue Specialist, Certified Life Coach

Squires is founder and principal of Rekindle, LLC, and an internationally recognized speaker with more than 25 years of experience in the veterinary field helping veterinary professionals maintain wellbeing and mental health. She has provided executive training and workshops for major veterinary companies including Nestle Purina, Bayer Animal Health and IDEXX Laboratories.

Dirk Vanderwall, DVM, PhD, DACT

Dr. Vanderwall serves as professor in the Department of Animal, Dairy and Veterinary Sciences and associate dean for the School of Veterinary Medicine at Utah State University. He is a Diplomate of the American College of Theriogenologists and previously served on the faculties of Colorado State University, the University of Idaho and the University of Pennsylvania.

— PROMISE SHOWN FOR OBESE CATS —

IN CVM COLLABORATIVE MICROBIOME STUDY

Every feline fan knows that comics fat cat Garfield has a lasagna problem, but what if his constant weight battles aren't just a result of his fixation on an excess of pasta and meat sauce?

by Mike Jernigan

That's not exactly the question Dr. Xu Wang and a team in the Auburn College of Veterinary Medicine are attempting to answer, but their research into the effect of gut microbiota — or the types and amounts of natural microorganisms found in the gastrointestinal tract — on feline weight may eventually help lead to better treatments and outcomes for obese cats, as well as for those for whom excessive weight loss is a different health issue. As part of an effort to better understand the cause and effect relationship between microbiota and obesity, the team sequenced the microbial genomes in the microbiota, collectively known as the microbiome, in a small initial sample of cats housed at the Scott-Ritchey Research Center.

Wang and his team may be Garfield and other fat cats' best hope for becoming slim and trim. This team is comprised of Wang, assistant professor in comparative genomics in animal health in the Department of Pathobiology at the Auburn University College of Veterinary Medicine and adjunct faculty investigator with the HudsonAlpha Institute for Biotechnology, alongside fellow faculty members Dr. Christopher Lea, Dr. Diane Delmain, Dr. Erin Chamorro, Dr. Emily Graff, Dr. Doug Martin and lead graduate student Xiaolei Ma.

Ironically, the obese cat research, which was recently awarded a $34,583 grant from the EveryCat Health Foundation, originally began due to an attempt to determine a cause for excessive weight loss in some cats being treated for GM1 gangliosidosis, a genetic disorder that progressively destroys nerve cells in the brain and spinal cord. Martin and a team at the Scott-Ritchey Center had developed a highly effective treatment for the disease that was also being tested in human trials, but roughly 20% of the cats — and some of the human patients as well — experienced weight issues. Wang thought he might have some idea of the reason.

"The cats under treatment ate a carefully controlled amount of food and were examined thoroughly," Wang explained. "No underlying health problems that should affect their weight were found. But none of the efforts to improve their weight were effective. Human patients also had issues putting on weight. Taking all these observations and information into consideration, we thought it could be due to their gut microbiota."

The gut microbiome is the entire collection of microorganisms' genomes in the gastrointestinal tract. To give an idea of its complexity, the human microbiota consists of approximately 38 trillion microorganisms in total, exceeding even the number of human cells. "The gut microbiome is an integral part of the body," Wang said, "and has been shown to be involved in critical biological processes like digestion, the metabolic process, the adaptive immune system and even brain function. The effect of gut microbiota on animal physiology is universal, therefore, microbiome research is critical for both animal and human health.

"In addition," he added, "the gut microbiome has been shown to affect many aspects of disease physiology, including rheumatoid arthritis, colorectal cancer, cardiovascular disease and inflammatory bowel disease. Microbiome composition and function are also directly related to digestive function, as well as nutrient metabolism and assimilation, which play important roles in modulating weight."

Wang and his team launched a study of the gut microbiomes in the GM1 treatment cats experiencing severe weight loss and soon found some interesting commonalities. However, they needed similar data on healthy weight and obese cats in order to make comparisons. Their resulting study of the microbiomes of both normal and obese cats not only helped them better understand the weight loss in certain GM1 treatment cats — it also may help provide new treatments for obesity itself, a major problem among the U.S. feline population.

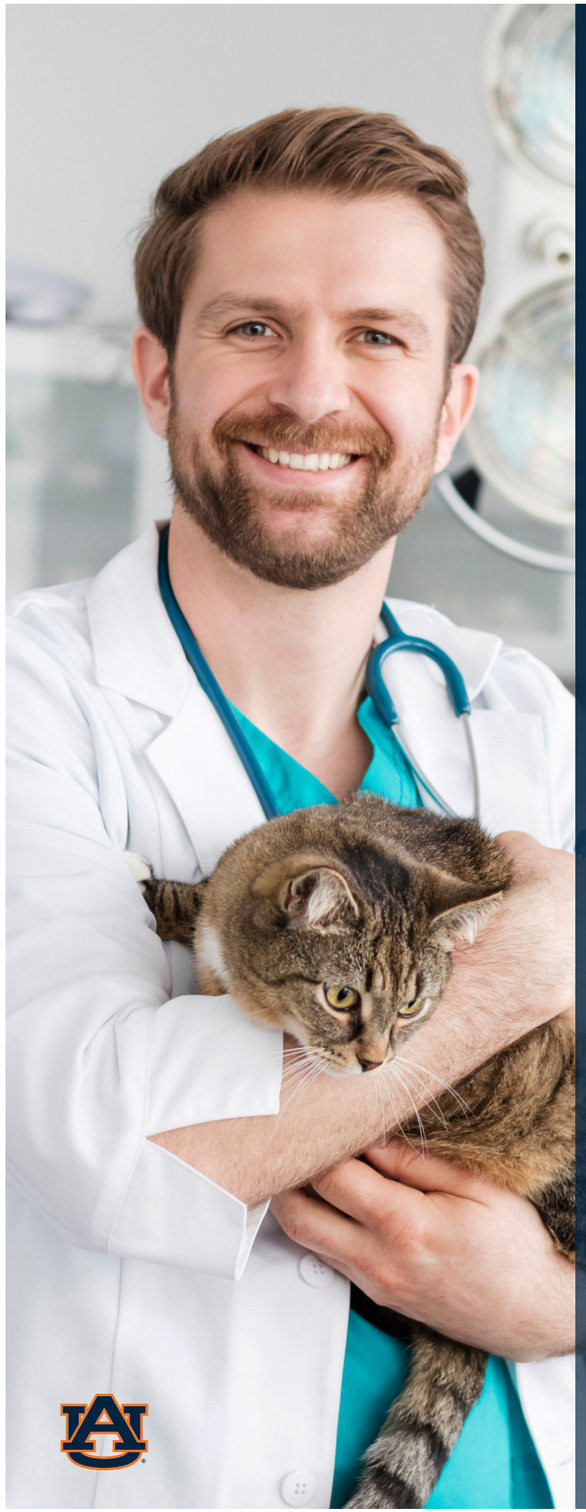
In fact, obesity affects around 45% of domestic cats, so Garfield is not alone. Obese cats face a higher risk of insulin resistance, neoplasia, cardiovascular disease and other health problems, and effective drug treatments are lacking. Increased exercise, special foods or reduced calorie diets are often prescribed by veterinarians, but usually with limited results.

Yet some of the bacteria in the obese cats' gastrointestinal tracts may stack the deck against them. In their initial studies, Wang and his team found several microorganisms in the microbiomes of overweight cats that have been previously associated with obesity. "The most significant candidates include four bacteria types that were increased in these cats and three that were depleted," Wang said. "We do not know if these represented true causation or were simply an indirect effect. But a human weight loss study performed at the Mayo Clinic revealed two genera significantly linked to weight loss potential and they are the same as in our cat findings. The discoveries in our research have clear translational value based on the human literature, and this would suggest causation."

Thanks to the EveryCat grant, Wang and his team now intend to follow up on their initial findings by conducting metagenomic sequencing, or mapping of genomes, for all the microbial species found in the microbiomes of fecal samples from a much larger number of fat cats brought in as patients at the college's Veterinary Community Practice Clinic. "Think of the gut microbiome as similar to a library full of books," Wang said. "The approach we use for sequencing would be similar to digitizing every single page in every book in the library. This will reveal the functional capacity of each microbe. The purpose is to validate our findings in a much larger sample size of the general domestic cat population. Some results may hold, but we may also discover some novel findings in the EveryCat study."

Sequencing those additional genomes, or digitizing that library, will allow the researchers to better understand the role each species plays in obesity, which in turn should help formulate new strategies for weight loss for both cats and — hopefully — humans. "The findings from this study," Wang said, "will be critical in informing new weight management strategies for obese cats, including evaluations of specific diets that alter gut microbiome composition, the development of prebiotics and probiotics promoting the increase of beneficial microorganisms and the reduction of those associated with obesity and potential microbiome transplantation between obese and lean cats."

With luck, the study may also benefit some of the owners of fat cats like Garfield, who also enjoy a little too much lasagna. It is yet another application of the One Health concept linking animal and human health. "The bacteria we have identified so far in our study have also been shown to affect weight loss success in human patients," Wang concluded. "There are definitely some possible applications to human obesity."



SEEKING

NOMINATIONS

2023 WILFORD S. BAILEY DISTINGUISHED ALUMNI AWARDS

The Auburn College of Veterinary Medicine has graduated untold numbers of individuals who have achieved at the highest levels of the profession and whose contributions have made a difference in every area of One Health. To recognize these individuals for their achievements and success, the Wilford S. Bailey Distinguished Alumni Award was established as the college's highest alumni award. Each year, one recipient is awarded in each of three categories: Research / Public Policy / Other.

Eligible candidates must meet the following criteria:

- must be an alumnus of Auburn's College of Veterinary Medicine who holds either a professional or advanced degree;
- must be known for his or her accomplishments in veterinary medicine; and/or
- must have made outstanding contributions to his or her community and the advancement of animal and human health.

Nominees may be DVM, MS or Ph.D. graduates of the college whose actions have made a difference in their community or beyond in advancing animal and human health. The 2023 award recipients will be honored during a special ceremony in Spring 2023. Completed nomination materials must be submitted via electronic form submission no later than January 23, 2023, to be considered for the 2023 awards presentation.

Visit aub.ie/baileyawards for submission and nomination information.

MERNER RESEARCH TEAM AWARDED

AMERICAN CANCER SOCIETY GRANT

Dr. Nancy Merner, assistant professor in the Auburn University College of Veterinary Medicine's Department of Pathobiology, recently received a $791,808 grant from the American Cancer Society to continue her research into identifying and studying genetic factors associated with hereditary breast cancer in the African-American community.

According to Merner, "African-American women have higher breast cancer incidence rates before the age of 40 than other ethnic groups in the United States. They are also more likely to be diagnosed with triple-negative breast cancer, a more aggressive subtype with a poor prognosis. These facts, coupled with reports of African-American males having higher breast and prostate cancer frequencies than other ethnicities, suggest that hereditary factors are involved."

Despite the higher incidence of these cancers in the African-American community, Merner said there have been an insufficient number of studies to determine the causes. In efforts to combat this insufficiency, the Merner research team has sought out families with a history of such cancers while traveling the state, spreading cancer awareness in a pink bus called "the Gene Machine" and using online resources.

"There is a critical need to identify and study genetic factors associated with African-American hereditary breast cancer," Merner explained. "Our group has established the Alabama Hereditary Cancer Cohort for genetic analyses. Alabama is a severely medically underserved state, with double the national percentage of African-Americans. Therefore, we developed strategic recruitment protocols to break down research participation barriers to recruit African-American hereditary breast cancer cases and families effectively."

Utilizing data gathered from those participants and others, Merner and her team have conducted gene sequencing and identified protein-truncating variants (PTVs) specific to African-Americans that appear to increase inherited breast cancer risk. PTVs are genetic variants that shorten the protein-coding sequence of genes and may cause them to malfunction.

"We plan to identify these PTVs associated with breast cancer among African-Americans and study how they increase risk," Merner said. "The impact of this work will be substantial for this understudied and underrepresented group. Risk variant identification can lead to better risk assessment and tailored therapies, reducing breast cancer-related deaths.

"Ultimately," she added, "this study will not only identify African-American breast cancer risk variants, but generating and sharing this data on African-American hereditary breast cancer cases will add to the limited resources currently impeding discoveries. And finally, by carrying out sub-type analyses, this proposal could specifically impact women diagnosed with triple-negative breast cancer, reducing the number of deaths from this aggressive breast cancer sub-type through better risk assessment and tailored therapies."

CVM SCHOLARS RECEIVE

AUBURN AUTHOR AWARDS

Seven faculty, staff and students from the College of Veterinary Medicine were recently recognized by the Auburn University Graduate School and the Auburn University Libraries as 2022 Auburn Author Awards recipients. The awards recognize faculty, staff and students who published a book-length scholarly work during the previous calendar year.

Among those recognized from the CVM during a ceremony celebrating their publications over the past year were: Dr. Maureen McMichael, Department of Clinical Sciences faculty member; Pia LaPorte, anatomy laboratory coordinator in the Department of Anatomy, Physiology and Pharmacology (APP); Theresa Sosby, fourth-year APP student; and APP faculty members Dr. Mahmoud Mansour, Dr. Melissa Singletary, Dr. Ya-xiong Tao and Dr. Ray Wilhite.

NAVC SPEAKER OF THE YEAR

ERIN GROOVER

Dr. Erin Groover, an associate clinical professor in the Auburn University College of Veterinary Medicine's Department of Clinical Sciences, was recently named the 2022 North American Veterinary Community (NAVC) Veterinary Meeting and Expo Equine Speaker of the Year.

Six honorees in different subject areas are chosen by veterinary professionals from around the world each year from a field of more than 350 veterinary speakers presenting more than 1,200 different sessions at the annual VMX meeting, which this year was held in Orlando, Florida.

ASVCP PRESIDENT-ELECT

MELINDA CAMUS

Dr. Melinda Camus, associate professor and associate dean for academic affairs in the Auburn University College of Veterinary Medicine, has been elected president-elect of the American Society for Veterinary Clinical Pathology (ASVCP).

The ASVCP is a nonprofit scientific organization dedicated to the promotion of scientific advancement, education and standards in veterinary laboratory medicine. Members include veterinary clinical pathologists and trainees, certified laboratory professionals, specialty veterinarians and diagnosticians in veterinary and medical schools, biomedical and pharmaceutical companies, diagnostic and government laboratories and private veterinary practices throughout the United States and in more than 20 countries worldwide.

BCRFA ADVISORY COUNCIL

BRUCE SMITH

Dr. Bruce Smith, professor in the Auburn University College of Veterinary Medicine's Scott-Ritchey Research Center, was recently named to the Medical Advisory Council of the Breast Cancer Research Foundation of Alabama (BCRFA). The advisory council reviews funding requests, confirms the science behind them is sound and ensures that BCRFA investments will have the maximum impact.

"The Medical Advisory Council members are BCRFA's boots on the ground within the medical community," said Beth Davis, BCRFA president and CEO of the 10-member council. "They are the megaphones at their respective research institutes, spreading the word about our mission and encouraging investigators who are focusing on breast cancer to pursue BCRFA funding."

AUBURN VET MED

ALUMNI ADVISORY COUNCIL *Nominations*

Are you an Auburn Vet Med alumnus interested in using your time and talents to help support our students and shape the future of the college?

The College of Veterinary Medicine Alumni Advisory Council is essential in guiding the college and raising private support for our students. We are seeking nominations to fill open four-year-term council seats through self-nomination or by nominating a fellow alumnus for terms beginning January 2023. The council consists of 15 Auburn Vet Med alumni, each elected for four years on a staggered-term basis. Time requirements for members include semi-annual meetings (spring and fall) and committee participation to support various programs and/or areas of the college.

Nominees must provide a current curriculum vitae including evidence of their support for Auburn University and the College of Veterinary Medicine and at least two letters of support from Auburn University College of Veterinary Medicine alumni. When nominating a fellow alumnus for a position, please carefully consider the nominee and discuss the opportunity with him/her prior to submitting a nomination. The nominations committee will present recommendations to the full council for election and the dean will formally notify the selected individual(s). Complete nomination materials must be received by October 26, 2022, for consideration.

Visit aub.ie/cvmadvisorycouncil for details and submission information.

SCOTT-RITCHEY'S

AMANDA GROSS NTSAD GRANT

Dr. Amanda Gross, research fellow in the Auburn University College of Veterinary Medicine's Scott-Ritchey Research Center, has been awarded a two-year, $140,000 grant from the National Tay-Sachs and Allied Diseases Association (NTSAD). The grant will fund further study into the most effective way to administer an Auburn-developed gene therapy for GM1 gangliosidosis disease in cats. The NTSAD supports — and is directly supported by — families affected by GM1.

GM1 gangliosidosis, which also affects humans, is a rare and fatal genetic disorder in which gene defects cause impaired enzyme activity, leading to a gradual toxic accumulation of lipids, called gangliosides, in the brain. Over time, this accumulation results in brain degeneration, causing cognitive impairment, paralysis and early death.

Gene therapy treatments such as that developed at Auburn's Scott-Ritchey Research Center use adeno-associated viruses (AAV) that can be engineered to deliver DNA to target cells. The NTSAD grant award notes that AAV therapy "represents one of the most promising paths toward life changing treatments for GM1, as well as Tay-Sachs, Canavan and Sandhoff diseases. Results from the study, while not directly applicable to the other disorders, may nevertheless provide insights that are valuable beyond GM1 research."

According to Gross, "My research uses AAV gene therapy to deliver functional genes to cells. In the case of GM1, we deliver the gene that enables the cell to break down the GM1 ganglioside. While the preliminary results from the clinical trials are promising, it is imperative to begin evaluating the next options for treating GM1."

In addition, the research will also help determine the best delivery system for the gene therapy. In ongoing GM1 clinical trials, the treatment has either been administered intravenously (IV) or via the cerebrospinal fluid (CSF). However, each of these treatment routes has shown certain deficiencies and there is debate on which one is most effective. Gross hopes to show that dual-site administration (IV and CSF) will have a cumulative effect.

"The project funded by the NTSAD looks to evaluate a dual site administration of AAV for the treatment of GM1," Gross explained. "In the three ongoing clinical trials, AAV is administered either intravenously (IV) or into the cerebrospinal fluid (CSF). By combining these two injection locations, we theorize that there will be an additive effect that will further increase the efficacy of AAV gene therapy for GM1.

"Additionally," she added, "we want to evaluate the effect AAV has on brain inflammation and other negative effects associated with GM1. By further studying these processes, we will better understand their role in GM1 and the part AAV plays in correcting or potentially exacerbating them."

"This project is the next step in developing an optimal gene therapy for GM1 gangliosidosis," noted Dr. Doug Martin, professor and Scott-Ritchey director. "While preliminary results from the first clinical trial are very positive, Dr. Gross' study aims to enhance treatment delivery to the brain as well as to learn more about the disease itself. When gene therapy is ultimately approved by the U.S. Food and Drug Administration, her study will make sure that it is delivered to patients in the most effective way possible."

2022 NANDI SCHOLAR

JORDAN FARRELL

Jordan Farrell, a senior in the Auburn University College of Veterinary Medicine, recently received a $10,000 award thanks to his selection as one of four national 2022 Nandi Scholars by the Theriogenology Foundation. The Foundation supports education and research in animal reproductive medicine.

At Auburn, Farrell has served as captain of the bovine palpation team that finished first at the national student competition and has served in leadership positions with a number of other student organizations, including Block and Bridle, the American Association of Bovine Practitioners, the American Association of Small Ruminant Practitioners and Society for Theriogenology.

He has also worked as a summer research scholar with the Auburn Canine Performance Sciences program. Farrell plans to work in a private rural mixed practice and to compete for a theriogenology residency in the near future.

AVMF/VPRF GRANT

MEGAN GROBMAN

Dr. Megan Grobman, assistant clinical professor in the Department of Clinical Sciences of the Auburn University College of Veterinary Medicine, was recently selected as one of two recipients of 2021-22 pharmacology research grants from the American Veterinary Medical Foundation (AVMF) and the Veterinary Pharmacology Research Foundation (VPRF). The AVMF and VPRF funding supports research projects designed to improve the prevention, diagnosis and treatment of diseases in animals.

As an assistant professor of small animal internal medicine, her research project will focus on the impact of single-dose trazodone administration on endogenous adrenocorticotropic hormone and serum cortisol concentrations in healthy dogs.

BLOOMBERG RESIDENT AWARD

SOPHIE BOORMAN

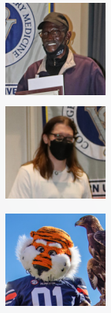
Dr. Sophie Boorman, a third-year equine surgery resident in the Auburn University College of Veterinary Medicine, was recently named as one of seven resident students from around the nation selected as winners of the 2022 Mark S. Bloomberg Resident Research Awards. Boorman was recognized by the Veterinary Orthopedic Society (VOS) for her abstract entitled "Effect of Rest Between Sequential Treatments of Local Anesthetic and Corticosteroid on Inflamed Equine Articular Tissues."

The annual awards honor Dr. Mark S. Bloomberg, "a tremendous contributor to the VOS as a former president, longstanding member, contributor and supporter." Each award paid travel expenses for presenting the abstracts at the 2022 World Veterinary Orthopedic Congress held in Snowmass, Colorado.

2022

STAFF RECOGNITION AWARDS

The Auburn Vet Med Staff Recognition Awards Ceremony is held annually to recognize how vital administrative staff and employees are to the college's success in student education, animal healthcare and research initiatives. The college established an employee committee to recognize and honor employees who consistently and consciously go beyond their normal work activities in support of the college's mission.

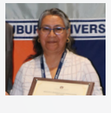


Staff Recognition Award

George Chisholm
Ben Driggers
Hayden Hamby

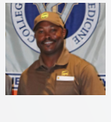
Deborah Hatch Czerkawski Award

Ashley Bogovich



Regina Rodriguez Williams Award

Crisanta Cruz Espinola



Dean's Award

Brian Stinson

2022

CLINICAL AWARDS

CAAHA Award for Proficiency in Primary Care
James Mackey

ACVP Proficiency Award
Kendall Helbert

American Academy of Veterinary Dermatology Award
Aubrey Gould

American Association of Feline Practitioners Outstanding Senior Award
Camille Woods

American College of Veterinary Internal Medicine Large Animal Award of Excellence
Caitlyn McCaulley

American College of Veterinary Internal Medicine Small Animal Award of Excellence
Kate Hovious

American College of Veterinary Ophthalmology Award
Grace Duer

American College of Veterinary Radiology Senior Veterinary Student Award
Devin Osterhoudt

American College of Veterinary Surgery Large Animal Award of Excellence Proficiency Award
Abigail Foose

American College of Veterinary Surgery Small Animal Award of Excellence Proficiency Award
Sarah Ezell

Clinician of the Year
Kathy Gerken

Dean's Award
Sarah Ezell

Dechra Excellence in Dermatology
Liz Thoreson

Dechra Excellence in Equine Sports Medicine
Caroline Dyrdek

Dechra Excellence in Small Animal Internal Medicine
Grace Duer

Gentle Doctor Award
Ian Gilson

Jamie Bellah Excellence in Raptor Rehabilitation Clinical Student Award
Hayley Healan

Large Animal Ophthalmology Clinical Proficiency Award
Sarah Ezell

President's Award
Jordan Farrell

SAVMA Outstanding Senior Award
Savana Gandy

SGA Outstanding Student Award
Bailey Reed

Small Animal Medical Proficiency Award
Brianna Grandprey

Small Animal Ophthalmology Clinical Proficiency Award
Kate Hovious

Society for Theriogenology Proficiency Award
Joshua Trumble

Society for Theriogenology Proficiency Award
Jordan Farrell

Veterinary Cancer Society Award
Nic Shugarts

Veterinary Emergency & Critical Care Society Award
Alexa Simmons

FACULTY & RETIREES

FACULTY APPOINTMENTS

Miria Criado
Assistant Professor
Pathobiology

Cristopher Young
Professor of Practice
Vet Med Admin

Scarlett Sumner
Assistant Professor
APP

Timothy Braden
Visiting Associate Professor, APP

Laura Lee
Assistant Clinical Professor
Pathobiology

Chance Armstrong
Associate Clinical Professor
Clinical Sciences

Jessica Klabnik
Assistant Professor
Clinical Sciences

Andrew Leisewitz
Professor
Clinical Sciences

Shollie Falkenberg
Associate Professor
Pathobiology

Rachel Neto
Assistant Clinical Professor, Pathobiology

Anna Catherine Bowden
Assistant Professor
Clinical Sciences

Mariano Mora Pereira
Assistant Professor
Clinical Sciences

FACULTY RETIREES

Herris Maxwell
Clinical Professor
Clinical Sciences

Dawn Boothe
Alumni Professor
APP

Elizabeth Spangler
Associate Professor
Pathobiology

Stephanie Ostrowski
Professor
Pathobiology

Ellen Behrend
Professor
Clinical Sciences

Byron Blagburn
Professor
Pathobiology

Russell Cattley
Endowed Chair
Professor
Pathobiology

— SOUTHEASTERN RAPTOR CENTER DIRECTOR —

WADE STEVENS

Wade F. Stevens, a veteran of 26 years in municipal government — including extensive work in wildlife rehabilitation and conservation — was recently named director of the Auburn University College of Veterinary Medicine's Southeastern Raptor Center (SRC). The center is a non-profit rehabilitation and education facility for injured raptors that provides high-quality medical care and rehabilitation for wild raptors, supports raptor conservation efforts and expands the public's knowledge about raptors and their ecosystems. The SRC is also home to golden eagle Aurea, War Eagle VIII, and bald eagle Independence, raptors that have become nationally known for the pregame eagle flights at Jordan-Hare Stadium prior to Auburn football games.

Prior to coming to Auburn, Stevens served as facilities director for Alabama Farm Credit in Cullman, Alabama. That followed his 26-year career with the City of Orange Beach, Alabama, in a variety of leadership and wildlife rehabilitation roles. During his tenure there, he expanded Orange Beach's Coastal Operations Division into an independent department.

As manager of the city's Department of Coastal Operations from 2015 to 2021, Stevens also led a team that was responsible for human resources, budgeting, strategic planning, physical assets, facility maintenance, special projects, investigations, data management, communications and special events. Other functions included his team's oversight and management of nine miles of public beach on the Gulf of Mexico, portions of a nationally recognized trail system and a number of independent facilities providing public access to natural resources.

Stevens was also integral to the Coastal Bird Stewardship Program in Orange Beach, which included habitat restoration projects for gopher tortoises in conjunction with the Alabama State Parks System and a sea turtle triage and treatment facility. In addition, he served as incident management team leader for the city during its responses to the Deepwater Horizon Oil Spill and Hurricane Sally. Earlier in his city career, he served as administrative chief for the Orange Beach Fire Department.

Stevens is a recognized speaker at public events and a subject matter expert recognized at the state and regional levels. A graduate of Waldorf College, he has completed rehabilitation training with the National Wildlife Rehabilitators Association, the International Wildlife Rehabilitation Council, the University of Minnesota Raptor Center, the Wildlife Center of Virginia and the Institute for Marine Mammal Studies. He and his team also founded and hosted the Gulf Coast Wildlife Symposium, an annual educational and networking conference for wildlife rehabilitators, veterinary technicians and veterinarians in Orange Beach.

IN MEMORIAM

Dr. R. Hardwick Kay '54 | R. Hardwick Kay, 90, passed away May 7, 2022. After earning his Auburn DVM, he served in the U.S. Army in the Korean War where he served as a captain in the Canine Unit. He later practiced in Corinth, Mississippi, for many years, was active with the Mississippi State University College of Veterinary Medicine and served on the board of the Mississippi Cattlemen's Association. Survivors include his wife, Kathryn, three children, three grandchildren and one great-grandchild.

Dr. Robert "Bob" Havens Stine '54 | Robert "Bob" Havens Stine, 90, passed away January 13, 2022. He practiced veterinary medicine along the Alabama and Florida Gulf Coasts for more than 60 years. Survivors include four children, 12 grandchildren and 10 great-grandchildren.

Dr. Joseph Frank Gravlee '56 | Joseph Frank Gravlee, 90, passed away January 23, 2022. After earning his Auburn DVM and practicing for many years, he founded Life Data Labs, Inc., an animal nutrition manufacturing company located in Cherokee, Alabama. As a result, he developed equine nutrition supplements that revolutionized the equine industry. Survivors include his wife, Linda, two sons and numerous grandchildren and great-grandchildren.

Dr. Donald Levin Burch, Sr. '57 | Donald Levin Burch, Sr., 90, passed away on June 14, 2022. He attended the University of Florida prior to earning his DVM at Auburn, then practiced veterinary medicine in Ocala, Florida, before purchasing his own clinic in Live Oak, Florida, where he practiced for more than 40 years. An avid forester as well, he was a member of the Florida Veterinary Association and American Veterinary Association and was recently honored as Suwannee County Forester of the Year. Survivors include his wife, Mary, three children, four grandchildren and one great-grandchild.

Dr. Scott Thomas Green '58 | Scott Thomas Green, 89, passed away August 4, 2022. He attended the University of Kentucky before earning his DVM at Auburn. After graduation, he returned to Frankfort, Kentucky, where he was co-owner of Frankfort Veterinary Clinic. Green was a life member of the American Veterinary Medical Association and the Kentucky Veterinary Medical Association. He was twice elected president of the Central Kentucky Veterinary Medical Association and was former president of the Central Kentucky Small Animal Hospital Association. He also served on the board of the Franklin County Health Department for 18 years. Survivors include his wife, Barbara, six children, 11 grandchildren, two great-grandchildren, two sisters and a brother.

Dr. William J. "Max" Ray, Jr. '58 | William J. "Max" Ray, Jr., 88, passed away May 2, 2022. He graduated from the University of Florida prior to earning his Auburn DVM. He returned to Florida to establish Beach Park Animal Clinic in South Tampa, where he worked until he retired in 2018. Survivors include his wife, Marie, three children, two step-daughters, four grandchildren, a great-grandchild and a brother.

Dr. Melvin David Stein '58 | Melvin David Stein, 91, passed away March 22, 2022. He graduated from the University of Alabama prior to earning his DVM at Auburn, then opened his veterinary practice in South Windsor, Connecticut. He later practiced in Florida as well. Survivors include four children and five grandchildren.

Dr. James Robert Grace '59 | James Robert Grace, 93, passed away April 15, 2022. A U.S. Army veteran, he attended the University of Louisville and the University of Kentucky before earning his DVM at Auburn. He then moved back to Louisville, Kentucky, to establish his first clinic and later Audubon Animal Hospital and Cherokee Animal Clinic. Following retirement, he moved to Indian Pass, Florida. Survivors include seven children, 24 grandchildren and eight great-grandchildren.

Dr. James Franklin Harwell, Jr. '60 | James Franklin Harwell, Jr., 86, passed away June 6, 2022. He attended Texas A&M University before earning his DVM at Auburn. After graduation, he served 15 years in the U.S. Air Force and an additional 15 years in the Commission Corps of the U.S. Public Health Service. Survivors include his wife, Merrill.

Dr. Richard Emmett Perkins '60 | Richard Emmett Perkins, 90, passed away January 18, 2022. Prior to attending Auburn, he joined the U.S. Air Force and served in the Korean War. After earning his DVM, he opened a mixed animal practice, Perkins Veterinary Clinic, in Abbeville, Louisiana, from which he retired in 1996. He was a member of the American Veterinary Medical Association, Louisiana Veterinary Medical Association and the American Association of Equine Practitioners. Survivors include two daughters, a son, five grandchildren, two step-grandchildren and two step-great-grandchildren.

Dr. Loran Martin "Hank" Snow '60 | Loran Martin "Hank" Snow, 86, passed away July 13, 2022. He graduated from the University of Kentucky prior to attending Auburn, then served in the U.S. Air Force after earning his DVM. Following his military service, he entered private practice at the Berclair Animal Hospital in Memphis, Tennessee, where he spent the rest of his 52-year career. Survivors include two children, three grandchildren, a brother and a sister.

Dr. Samuel Barrie '63 | Samuel Barrie Bounds, 83, passed away on January 13, 2022. He attended Mississippi State University prior to earning his Auburn DVM, then joined the veterinary practice of Anderson and Bradshaw in Macon, Mississippi. Later, he became the sole proprietor of the practice, renaming it Noxubee Animal Clinic. Although he had reduced hours and services in recent years, he continued seeing clients until the week of his death. Survivors include three children, seven grandchildren, three great-grandchildren, two sisters and a brother.

Dr. Robert Flake Chambliss, Jr. '63 | Robert Flake Chambliss, Jr., 83, died on May 28, 2022. He completed his pre-vet studies at University of Florida before earning his Auburn DVM. After graduating, he spent one year in Clovis, New Mexico, in a feedlot and ranch practice and two years as Post Veterinarian in the U.S. Army stationed at Fort Hood, Texas. After his military service, he joined a small animal practice in Dallas, Texas, before moving to Tampa, Florida, to practice at Tampa Veterinary Hospital, where he continued until retirement in 2008. He also served on the Hillsborough County Animal Advisory Committee for several years after retirement. Survivors include his wife, Judy, a daughter, a granddaughter, a step-daughter, four step-grandchildren and two step-great-grandchildren.

Dr. Lester M. Crawford '63 | Lester M. Crawford, 83, passed away on December 23, 2021. After earning his Auburn DVM, he later completed a PhD in pharmacology from the University of Georgia and was also awarded an honorary doctorate from the Budapest (Hungary) University of Veterinary Science. The author of more than 100 publications, he was an Honorary Diplomate of the French Academy of Veterinary Medicine, a Fellow of the Royal Society of Medicine in the United Kingdom, and a Fellow of the International Society of Food Science and Technology. He was also inducted into the International Academy of Food Science and Nutrition and the National Academies Institute of Medicine and was awarded Honorary Board Certification in the American College of Veterinary Preventative Medicine. At the University of Georgia, he was chairman of the Department of Pharmacology and Physiology and associate dean of the College of Veterinary Medicine for 16 years. Other posts included serving as director of food and nutrition policy at Georgetown University, director of the Center of Veterinary Medicine at the U.S. Food & Drug Administration, administrator of the Food Safety and Inspection Service at the USDA, as well as deputy commissioner, acting commissioner and, ultimately, commissioner of the FDA. He also worked at the National Food Processors Association and the Association of American Veterinary Colleges and served as an expert advisor to the World Health Organization, the Singapore FDA and the U.S. Academy of Sciences. Survivors include his wife, Cathy, two daughters, four grandchildren, a sister and a brother.

Dr. Thomas A. Dees '65 | Thomas A. Dees, 82, passed away February 4, 2022. He attended the University of Georgia prior to earning his Auburn DVM, then added a master's degree from Texas A&M University in vaccine science. As a USDA brucellosis epidemiologist, he traveled the southeastern region and many other countries in his pursuit of eradicating transmissible disease in man and animals. He was also a foreign animal diagnostician and he served an extended tour of duty in Vietnam in the Special Forces as a Veterinary Civic Action Veterinarian. After his retirement from the USDA, he worked with the Florida Department of Agriculture on vaccines for pseudorabies in wild hogs. Survivors include his wife, Elaine, four children, two sisters and a brother.

Dr. Charles W. Erwin '66 | Charles W. Erwin, 79, passed away October 25, 2020. After earning his DVM from Auburn, he began his career at Mayfield Veterinary Clinic before joining the USDA-Animal Plant Health Inspection Service's Veterinary Services division. While with the USDA, he joined the U.S. Army, serving in Vietnam with scout dogs, tracker dog teams and sentry dogs. He later returned home and continued his USDA career, working across the Southeast and finally as the foreign animal disease diagnostician for western Kentucky, southern Illinois and west Tennessee, prior to retirement in 1999. Survivors include his wife, Holly, and two children.

Dr. Benjamin Robert Stallard '66 | Benjamin Robert Stallard, 79, passed away August 2, 2022. He attended Western Kentucky University prior to earning his Auburn DVM, then joined the U.S. Air Force. Following his military service, he opened Middletown Animal Clinic in Middletown, Kentucky. Survivors include two daughters, four grandchildren and three sisters.

Dr. Jacob James De Jong '68 | Jacob James De Jong, 91, passed away January 12, 2022. He served in the U.S. Army prior to completing his degree at Iowa State University, then returned to school later to earn his Auburn DVM. After practicing briefly in Perryville, Missouri, he moved to Worthington, Minnesota, where he later became a partner in the Veterinary Medical Center, a large animal practice. Survivors include three sons, two grandchildren, two brothers and a sister.

Dr. Frank Young Rogers, Sr. '69 | Frank Young Rogers, Sr., 82, passed away on June 25, 2022. A U.S. Army veteran, he graduated from Mississippi State University prior to earning his DVM at Auburn. Afterwards, he practiced in Eupora, Mississippi, before relocating to the Jackson area, where he became the assistant state veterinarian and later, state veterinarian. His proudest professional accomplishment was leading the effort to eradicate brucellosis in livestock in Mississippi. He later joined the Mississippi Air National Guard and retired as a lieutenant colonel. Survivors include his wife, Wilna, two sons, four grandchildren and a brother.

Dr. Lonnie Richard Smith '69 | Lonnie Richard Smith, 77, passed away August 17, 2022. He attended pre-veterinarian school at the University of Knoxville prior to earning his Auburn DVM. Afterwards, he moved to Nashville, Tennessee, where he practiced at and owned Hickory Plaza Vet Clinic for almost 50 years. He was a lifetime member of the American Veterinary Medical Association and Tennessee Veterinary Medical Association. Survivors include his wife, Sue, two sons, five grandchildren, two great-grandchildren and a brother.

Dr. Homer Louis Jones, Jr. '71 | Homer Louis Jones, Jr., 76, passed away March 26, 2022. After graduation from Auburn, he opened Jones Veterinary Hospital in Andalusia, Alabama. Survivors include his partner, Marie, two children, six grandchildren and two sisters.

Dr. Ronald William Todd, Jr. '71 | Ronald William Todd, 78, passed away on December 12, 2021. A graduate of the University of Kentucky, he practiced in Miami, Florida, for 45 years after earning his Auburn DVM. He was also an active board member in the South Florida Veterinary Medical Association and the Florida Veterinary Medical Association. Survivors include his wife, Sara, two children and five grandchildren.

Dr. Andrew Wayne Creel '73 | Andrew Wayne Creel, 76, passed away on August 26, 2022. He graduated from Howard College prior to

completing his Auburn DVM, after which he went on to post-doctoral work in canine dentistry. He later opened Haywood Road Animal Hospital and Pet Motel in Greenville, South Carolina, where he practiced until his retirement. In addition to pioneering the field of pet dentistry in the upstate, he was a member of the South Carolina Association of Veterinarians and, in 2012, he was named the South Carolina Veterinarian of the Year. Survivors include two daughters, two grandchildren, a sister and a bother.

Dr. Ram Chandra Purohit '74 | Ram Chandra Purohit, 83, passed away June 5, 2022. He earned his BVSc and AH degree from the University of Rajasthan, India, and performed post-graduate work at Washington State University in reproductive physiology. He later completed a PhD at Auburn and a master's at Tuskegee University. He joined the faculty at the Auburn CVM as an instructor in 1973 and was promoted to full professor in 1983. He was also board certified by the American College of Theriogenology and was awarded specialty board certification by the American Board of Thermology and the American Academy of Thermology. He was selected for the Distinguished Graduate Faculty Lectureship at Auburn in 1994-95 and also served as Alumni Professor 1995-2000. After 32 years as a teacher, clinician and researcher, he was named professor emeritus of the college upon his retirement. Survivors include his wife, Cynthia, three children, seven grandchildren, two great-grandchildren and two sisters.

Dr. Kristan "Kris" Hodges, Sr. '76 | Kristan "Kris" Hodges, Sr., 70, passed away April 12, 2022. Survivors include his wife, two children, four grandchildren and a sister.

Dr. David Mark Slocum '80 | David Mark Slocum, 66, passed away December 9, 2021. He graduated from Mississippi State University prior to earning his Auburn DVM and established his first veterinary practice in Coldwater, Mississippi. He later operated a second veterinary practice in Senatobia, Mississippi. Survivors include his mother, a brother, two children and four grandchildren.

Dr. Michael Lee Thomas '81 | Michael Lee Thomas, 67, passed away August 24, 2022. He attended the University of Kentucky prior to receiving his Auburn DVM. Following graduation, he practiced at E-town Animal Hospital in Elizabethtown, Kentucky, before retiring in 2017 after serving the community for 36 years. Survivors include his wife, Celia, four daughters, seven grandchildren and three brothers.

Dr. James Swift Chism '87 | James Swift Chism, 66, passed away on July 22, 2022. After completing service with the U. S. Marine Corps, he earned his Auburn DVM and purchased a practice in Rockcastle County, Kentucky. Survivors include his wife, Marcia, two daughters, a brother and a sister.

Dr. Mark Lyle Miller '87 | Mark Lyle Miller, 59, passed away December, 15, 2021. After earning his DVM, he was a member of the U.S. Army Special Forces. Later, he opened Cahaba Valley Animal Clinic in Birmingham, where he worked for the majority of his career. He was also a founding member of the Emergency and Specialty Animal Medical Center. Survivors include his wife, Midge, a daughter, his parents and a sister.

Dr. Jennifer Brooke Davis '09 | Jennifer Brooke Davis, 44, passed away April 16, 2022. She graduated from the University of North Florida, then worked in pharmaceutical research prior to earning her DVM at Auburn. She practiced at Briarcliff Animal Hospital in Atlanta, Georgia, before later joining San Jose Beauclerc/Deerwood hospitals in Jacksonville, Florida. She was president of the Jacksonville Veterinary Medical Society and an active member of the American Association of Feline Practitioners, the Florida Veterinary Medical Association, and the American Veterinary Medical Association. She was also an avid supporter of rescue and shelter endeavors, and was especially active with G.R.E.A.T. Rescue of Northeast Florida. Survivors include her mother and a brother.

Dr. Kristen Marie Caslowe '10 | Kristen Marie Caslowe, 37, passed away February 4, 2022. After graduating from the University of Findlay, she earned her Auburn DVM and moved to Franklin, Tennessee, where she first worked with large animals before later working primarily in small animal practice. Survivors include her mother, Janie, and husband, Chris.

GLENDA CAROL ALLEN BUFFORD

Glenda Carol Allen Bufford, 81, passed away July 28, 2022. She was an academic advisor in the College of Veterinary Medicine for many years. She is survived by four children, nine grandchildren and two great-grandchildren.

Our friendship spanned the half century from 1969 when, her office in University Personnel, she informed me of my rights as a 15-year faculty member on the eve of my departure to accept a new position at Cornell University. Nor did it end with my retirement in 1995, by which time she was literally the face of the dean's office. Ethel had gone to high school with her husband, Matthew, in Tuskegee, and they were like members of my family.

Requiescat en pace, Glenda Bufford.

J.T. Vaughan

SHORT ANSWER:

AUBURN UNIVERSITY IS DOING ITS PART.

A previous presidential administration advanced the concept that the U.S. was out of order in holding itself up as exceptional, and as such, was worsening its relation to other nations. There followed an apologetic stance and attempts to demean itself in international affairs. The president was rewarded with the Nobel Peace Prize for his efforts. I shan't make unfair analysis of the results, but coincidental or not, America's diminished influence has been followed by significant problems in the Middle East and Far East. Which raises the question, is it wrong to take pride in significant accomplishments?

Pride, as one of the seven capital sins (associated with such as anger, lust and sloth) need not be confused with gratitude for worthwhile accomplishments based on the bedrock of honest efforts and commendable self-sufficiency. At a time when the eternal verities are being threatened by certain "progressive ideologies," it is more important than ever to restate the grounds on which they stand.

From William Wordsworth's *The Character of the Happy Warrior*, an excerpt:

"WHENCE, IN A STATE WHERE MEN ARE TEMPTED STILL
TO EVIL FOR A GUARD AGAINST WORSE ILL,
AND WHAT IN QUALITY OR ACT IS BEST
DOTH SELDOM ON A RIGHT FOUNDATION REST,
HE LABORS GOOD ON GOOD TO FIX AND OWES
TO VIRTUE EVERY TRIUMPH THAT HE KNOWS"

In keeping with that theme, Auburn can take justifiable pride in good evidence of exceptional achievements, as may be claimed in these recent illustrations.

No better example of "One Medicine" can be found than in the College of Veterinary Medicine's research on GM1 gangliosidosis — an inherited disorder that progressively destroys nerve cells in the brain and spinal cord and is estimated to occur in one in 100,000 to 200,000 newborn children. Based on work started in the 1970s by Professor Emeritus Dr. Henry Baker, Dr. Doug Martin, director of Auburn's Scott-Ritchey Research Center, developed the gene therapy treatment which had been used to extend the lives of cats affected by the diseases for use in children. This work was done in collaboration with scientists at the University of Massachusetts Medical School and the National Institutes of Health. At the time of this report, the treatment had been used on 11 children, the first of three clinical trials underway and shows great promise. Other trials include the University of California-Irvine and the University of Pennsylvania.

In March of this year, it was announced that the U.S. Department of Homeland Security Science and Technology Directorate (DHS S&T) had awarded the AU College of Veterinary Medicine a five-year, $24 million contract to advance detection canine sciences and advance operational threat detection capabilities. It is the single largest research contract ever awarded to Auburn University. It will support initiatives in the transdisciplinary Detection Canine Sciences, Innovation, Technology and Education (DCSITE) program. It will be expanded to include external partnerships with other academic institutions, national laboratories and private companies.

A further example of the college's research capabilities in olfaction is the discovery by Dr. Vitaly Vodyanoy of metal, specifically zinc, nanoparticles in nose cells that dramatically enhance the sense of smell.

Yet another instance of the breadth of Auburn's contributions to one medicine is the Boshell Diabetes and Metabolic Diseases Research program that has 54 faculty members from 10 academic units across campus under the direction of Dr. Robert Judd, Boshell chair and head of the Department of Anatomy, Physiology and Pharmacology, researching causes and treatments for diabetes and related diseases.

No issue is more important than keeping up with the ability of viruses to mutate and to develop resistance to effective vaccines and antibiotics. Quoting Dr. Xu Wang, assistant professor of comparative genomics in animal health, "Antimicrobial resistance will be at the center of the next pandemic." Here again is the focus of Auburn Vet Med's research team.

Since 2021, the college is home to the new Animal Health and Agro-/Bio-Defense (AHAD) program, a national network of U.S. government agencies and land-grant universities devoted primarily to diseases affecting economically important domestic animals that pose a threat to public health and national security. In partnership with the USDA-Agricultural Research Service, initial and planned funding of $2.5 million extends over the next five years.

Anchoring a phenomenal year in Auburn's sports programs, including gymnastics, basketball and baseball, is Auburn's equestrian team and Veterinary Medicine, a winning combination. If you ask Coach Greg Williams and Dr. Jennifer Taintor, Auburn's equestrian team stands at the top nationally, with six overall national championships in addition to numerous wins for regional and individual titles. Impressive new facilities, including arena and training tracks, amplify the university's commitment to the program.

Recognition of the university's appreciation of veterinary medicine's role in all of this, found illustration in the invitation of Dr. Jay Price, class of 2006, CEO of Southern Veterinary Partners, to deliver the keynote address to the university's commencement ceremonies on August 5, 2022.

In consideration of the university at large, special recognition goes to the Retirement Systems of Alabama and Dr. David G. Bronner, CEO, for their visionary investment over 13 years ago of $70 million in SiO2 Materials Science to develop the perfect safest package for the new family of DNA/mRNA vaccines developed by Moderna for the COVID-19 vaccine now being used in 185 countries around the world. This makes Auburn the center of the world for further development and new products. AU's Chemical Engineering Department furnished the greatest percentage of the technical work force. Of more than a little interest is the fact that Auburn's new president, Dr. Christopher Roberts, was formerly the department head of Chemical Engineering.

Auburn industries will soon have a new space to train and develop their employees' skills at the new Auburn Center for Developing Industries (ACDI) Business Center. Funding was provided by Congress, which approved in March the Consolidated Appropriations Act, including a $3 million federal appropriation to fund an expansion of ACDI. Congressman Mike Rogers requested the funding on behalf of East Alabama communities.

A related program is the new AUBIX Data Center, a 40,000-square-foot facility to give businesses and public entities statewide a tech edge and increased access to high-speed internet, improving cybersecurity and computer science training. Founded by Auburn businessmen, the mission-critical digital infrastructure and increased connectivity will benefit healthcare and financial services across the state.

Announced in March 2022, Auburn University and Fort Benning agreed to an $18 million, 10-year partnership in which Auburn University's Department of Risk Management and Safety will manage environmental services at Fort Benning involving hazardous waste, water and air, and by providing other environmental education and training services involving about 62,000 soldiers a year — more than anywhere else in the Department of Defense. International in scope, it trains officers from 105 nations around the world. The program will also extend to eight Army posts across the Southeast. To help drive the collaboration, Auburn's College of Forestry, Wildlife and Environment will be establishing the Center for Natural Resource Management on Military Lands.

Announced in March 2022, American retail supergiant Wal-Mart has partnered with researchers at Auburn to implement cutting-edge technology in modernizing inventory control, streamlining services to save time and money. Work being done at Auburn using radio frequency identification (RFID) is impacting supply chain management from producer to consumer. Led by the university's RFID Lab in the Harbert College of Business, other partners include NASA, Delta Airlines and Gulf Cost Fisheries. Auburn's Samuel Ginn College of Engineering and the College of Human Sciences are also involved in the lab, set up in 2014, which involves at least 100 students on the workforce.

The Harbert College of Business has also partnered with the Norfolk Southern Corporation to cultivate job opportunities for students well prepared in professionalism and communication. Norfolk Southern is a rail industry giant, operating on 19,300 route miles in 22 states and Washington, D.C. It serves every major port on the East Coast between New York City and Jacksonville, Florida; the Gulf ports of Mobile, New Orleans and St. Bernard; the Great Lakes; and numerous river ports.

In June 2022, Auburn University signed a Memorandum of Understanding (MOU) with the Los Alamos National Laboratory (LANL) to work together on joint research proposals, enhance the university's curriculum and educational opportunities and improve LANL workforce-building with faculty and students in the Samuel Ginn College of Engineering.

Lastly, it should be understood with emphasis that this list of accomplishments is representative, not exhaustive, of the genius and industry of individuals as well as of schools and departments, and of the endless efforts by the unlettered staff who work largely unsung to keep the engines humming and the wheels from running off.

And need it be said that it answers the question,
"CAN (WE) BECOME EXCEPTIONAL AGAIN?"
With no false pride, but with grateful hearts, we have met the challenge and we are there. Amen.

Respectfully,
Yr humbl & obdt svt

J.T. Vaughan

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Visit the Alumni Affiliate Group website for more information and to learn more about membership levels.

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