

SUMMER 2024

TRACKS

MAGAZINE



FIRST CLASS

*The veterinarians who paved the way:
Stories from the Class of 1984*

SUMMER 2024

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PERFECTING PERFORMANCE

*New equine performance center impresses as
it begins serving horse community*

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MAGAZINE

THE MAKING OF A VETERINARIAN

*Trials, triumphs, and the transformation
of veterinary students in the Class of 2024*

TRACKS

MAGAZINE

A publication of the Virginia-Maryland College of Veterinary Medicine.

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MESSAGE FROM THE DEAN

As the 2023-24 academic year flows into summer, we send out energetic graduates from the Virginia-Maryland College of Veterinary Medicine who have earned degrees in public health, biomedical sciences, and veterinary medicine. These alumni go into surrounding communities, neighboring states, across the nation, and around the world to improve health – advancing the ideals of One Health, the dynamic interdependence of human, animal, and environmental health.



We celebrate the retirement of several faculty, staff, and administrators who have served the college for many years, including Terry Swecker, retiring director of the Veterinary Teaching Hospital. We welcome new leaders into the college and congratulate those stepping into different roles. The college's leadership team is focused on updating and actualizing our strategic vision to ensure our college's long-term success. Because of these efforts and the dedication of our college's faculty, staff, and students, I am confident that we will continue to achieve a growing success.

In the college, we are privileged to constantly welcome those upon whom the future is being built. Occasionally, we take the opportunity to look back at the great impact of those who previously came through the halls of this college before shaping the precedents that define our current profession. In that light, the first DVM students graduating from the college in 1984 will be returning for their 40th reunion this year. We are proud of their accomplishments and share a few of their stories in this issue.

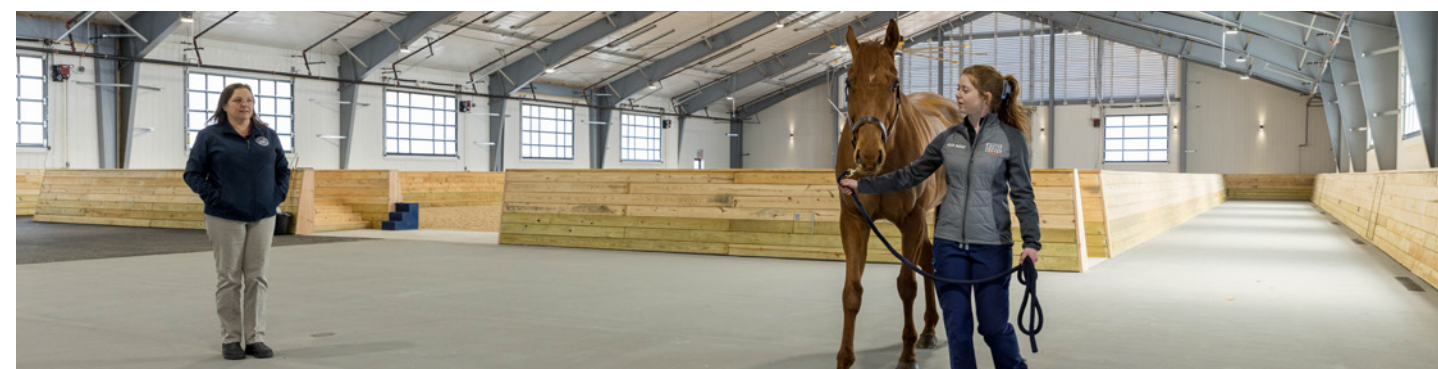
The college has achieved important milestones this year, such as the opening of the Jane and Stephen Hale Equine Performance Evaluation Center. This 21,000-square-foot indoor arena with three different surfaces supports the patients, clients, and clinicians of the Marion duPont Scott Equine Medical Center in facilitating better diagnoses of injuries and lameness in horses.

We value and appreciate faculty in our hospitals and throughout the college who teach and inspire future veterinarians. Bobbi Conner, featured in this issue, mentors students in emergency and critical care, guiding them to becoming problem-solving veterinarians ready to care for animals and people.

Finally, we aspire to move forward as soon as possible with the expansion and renovation of the teaching hospital here in Blacksburg. We sincerely appreciate everyone who supports this college, and we hope you enjoy this issue of *TRACKS*.

M. Daniel Givens

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IN THIS ISSUE: The Virginia-Maryland College of Veterinary Medicine has come a long way in 40 years, from its first class in makeshift classrooms to graduating confident practitioners who have built successful careers in private practice, government and academia.

Today, new facilities, new research, and new directions are celebrated, as the college gears up for a planned expansion of its teaching hospital that will serve new generations of veterinary college graduates into the midcentury.



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NEWS AROUND THE COLLEGE



NEW VETERINARY TEACHING HOSPITAL DIRECTOR ANNOUNCED

Tanya LeRoith DVM '99 has been named the new director of the Veterinary Teaching Hospital, succeeding the retiring Terry Swecker DVM '84, on May 10. LeRoith, who came to the veterinary college in 2005, also serves as director of Virginia Tech Animal Laboratory Services (ViTALS) and as an anatomic pathology faculty member in the Department of Biomedical Sciences and Pathobiology.



ANIMAL INSTRUCTORS PROGRAM IS EXPANDING THIS FALL

The Animal Instructors Program, an initiative designed to give veterinary students early hands-on experience with animals, is expanding its offerings to include no-cost neuters and physical exams to the Blacksburg and surrounding community starting this fall. The program will continue its spay procedures in the spring.



CONGRATULATIONS, CLASS OF 2024

It is our college's great privilege to celebrate the accomplishments of our 96 students earning their BSPH, 47 earning their MPH, 10 earning their M.S., 125 earning their DVM, and 8 earning their Ph.D.



GIVING DAY PROVIDES STUDENT SCHOLARSHIPS

During this year's Giving Day, the college showed its commitment to our future leaders in veterinary medicine, public health, and biomedical sciences by focusing all our efforts on student scholarships. In just a 24-hour period, the college raised over \$90,000 from 331 donors. Thanks to the support of everyone in our community, we are promoting healthier societies and safeguarding the well-being of both animals and humans by graduating knowledgeable and prepared professionals into the community.



PETCO LOVE SUPPORTS CANCER CARE

The Animal Cancer Care and Research Center (ACCRC) will continue offering financial assistance to pet owners thanks to a collaboration with Petco Love and Blue Buffalo, who together provided a two-year grant worth \$150,000. Clinicians at the ACCRC will be able to offer partial or complete coverage of treatment costs based on individual cases and available funds.

TWO COLLEGE FACULTY HONORED WITH EMERITUS STATUS



Gregory Daniel

Greg Daniel, professor of radiology and former interim dean of the veterinary college, has been conferred the title of professor emeritus by the Virginia Tech Board of Visitors.

A member of the Virginia Tech community since 2007, Daniel made significant contributions to veterinary radiology through his work focusing on nuclear medicine.

Daniel taught a wide variety of undergraduate and graduate-level courses ranging across the DVM and Biomedical and Veterinary Science curriculums.

Daniel provided many years of distinguished service as department head, section chief of radiology service, and University Radiation Safety Committee member. From 2017 to 2020, he served his college as interim dean, providing strong leadership during a period of transition.

Daniel received many professional honors and awards, including the Virginia and Edward Thompson Award, the Turnwald Family Innovation Award, Distinguished Virginia Veterinarian, and the Wilford S. Bailey Distinguished Alumni Award from Auburn University.



Jennifer Hodgson

Jennifer Hodgson, professor of microbiology and veterinary educational innovation, has been conferred the title of professor emerita by the Virginia Tech Board of Visitors.

At Virginia Tech for more than 16 years, Hodgson was a faculty member in the Department of Biomedical Sciences and Pathobiology and later in the Department of Population Health Sciences.

From 2008 through 2022, Hodgson served as the associate dean for professional programs in the veterinary college. She orchestrated a major revision to the veterinary medicine professional curriculum implemented in 2016 and wrote major sections of the successful 2014 and 2021 reaccreditations for the college.

Hodgson created and served as editor for the preeminent text on veterinary education, "Veterinary Medical Education: A Practical Guide" in 2017 and for the second edition in 2023.

Hodgson is a Diplomate in the American College of Veterinary Microbiology and a member of the Royal College of Veterinary Surgeons.

FEATURE

THE MAKING OF A VETERINARIAN

THE FIRST DAY: "It was exciting, very exciting, but also very scary as if, 'Am I good enough? Am I going to make it?' " recalled Marquis Harper, a food animal track recent graduate from Henderson, North Carolina.

WHAT DOES IT TAKE TO BECOME A VETERINARIAN?

Veterinary school has been described like a boot camp that pushes students to their limits. Getting into veterinary school often requires multiple attempts for even the most qualified applicants.

Each class is filled with "Type A" highly motivated, hard-working students dedicated to becoming veterinarians and having proven themselves capable of excelling academically. However, even for these high achievers, a professional program presents new experiences.

The recently graduated Doctor of Veterinary Medicine (DVM) Class of 2024 reflects on the grueling yet rewarding path that molded them into veterinarians. What began as an exciting, if daunting, first day of classes (during the COVID-19 pandemic) turned into a profound four-year transformation.

DRINKING FROM A FIREHOSE

"That was the first time where I was like, 'Whoa, this is a lot of information,'" said Kayla Blatman, a mixed animal tracker

from Northern Virginia. She remembered her early encounters with the torrent of material in courses like virology and parasitology. The volume is immense, the pace relentless – an experience likened to "drinking from a firehose."

Students vividly remember their first few weekends prepping for exams and the sobering realization that it is impossible to master every detail.

"I realized there just wasn't enough time to study everything. It's so much material in such a short period of time. There's just not enough time in the day to study everything," said Shayla Clay, an equine tracker from California.

The strategies and philosophies they relied on during undergraduate studies had to evolve.

"At the end of the day, it's more important to understand the 'why' than it is to just memorize the answer," said Roger Mack, a mixed animal tracker headed to a private clinic in Columbus, Ohio.

"For me, it was about focusing on one day at a time or one week at a time, because if I thought about the totality of it all, it was really overwhelming," said Harper.

The program's first two years focus on developing core knowledge, skills, and attributes across different species through the integration of basic and

clinical sciences. Courses are grouped into themes and cover dealing with threats, sensing and seeing, moving, breathing and circulating, and other scientific curricula. In addition, DVM students work on crucial professional competencies, including animal welfare, clinical communication skills, practice management, professional behavior, and other veterinary issues.

Students face exams every two weeks, along with lab exams, a cumulative final exam each semester, weekly quizzes, and case-based problem-solving sessions.

PERSEVERING THROUGH SELF-DOUBTS AND FAILURES

Invariably, there are stumbles along the way that shake students' confidence.

"I failed an exam in vet school, I got a big fat F. It's not something you ever want to see," said Emma Loessberg, a public and corporate veterinary medicine tracker from Richmond headed to a small animal general practice.

For many students accustomed to academic success, "It really instills a seed of self-doubt," Loessberg said. "You question, 'Am I smart enough to be here?' "

Blatman resolved "to keep pushing and keep finding new ways to learn the material" – meeting with professors,



Read more stories from the Class of 2024 at TRACKS Magazine online!

studying with classmates, and experimenting with different techniques until she found what worked for her.

"We have room to fail and improve and get back up and grow," Loessberg said. "It really didn't matter at all. It will not impact my day-to-day life and how I will practice medicine."

EMBRACING A CALLING

"Finishing first year, I studied hard, and I did really well," Harper said. "And I thought, 'OK, maybe I am smart enough and tough enough to make it through this.'

"What they don't tell you when you start veterinary school is that every semester gets progressively harder."

The third year is a transformative point when everything starts clicking into place. In the summer after their second year, students enter clinics for the first time to complete four clinical rotations.

This immersion in a workplace environment allows students to apply their gained knowledge and skills to real-world experiences.

"FINISHING FIRST YEAR, I STUDIED HARD, AND I DID REALLY WELL. AND I THOUGHT, 'OK, MAYBE I AM SMART ENOUGH AND TOUGH ENOUGH TO MAKE IT THROUGH THIS.' WHAT THEY DON'T TELL YOU WHEN YOU START VETERINARY SCHOOL IS THAT EVERY SEMESTER GETS PROGRESSIVELY HARDER."
- MARQUIS HARPER

"Third year really brought it together for me," said Blatman. Those first successful clinical experiences reveal students' newfound capabilities.

For Blatman, assisting with ovine cesarean sections gave her an unforgettable thrill: "I just did that – this lamb is coming into this world because I just did it.' It was a glimpse into what clinics and practice would be."

The later years of the curriculum allow students to focus on an area of interest

called tracking. Once students have gained foundational knowledge in core material during the first two years, they can build on this through advanced courses concentrating on their career goals. Tracks include small animal, food animal, equine, mixed animal, and public/ corporate.

Loessberg also discovered a newfound confidence: "Once I've gotten into clinics, that's really when you realize, 'Wow, I've actually learned a lot. And I'm 10 steps further ahead than I initially thought I was going to be.' "

By the fourth year, spent entirely in clinical rotations, the transformation is striking. Brimming with anticipation for her first job, Loessberg said: "I'm ready to get out there. I've become much more confident that I can do this."

MILESTONES

Among the greatest highs are major milestones – passing demanding examinations like anatomy practicums and, ultimately, the North American Veterinary Licensing Examination.

"Just opening that document and seeing that 'pass,' I felt like I could let out a

breath I had been holding in for the last three and a half years," Loessberg said.

Marshall vividly recalled the thrill of her first successful surgery: "I really like surgery. I like using my hands. And I like thinking things out, getting my hands dirty, so to speak, and actually doing something to help an animal."

Loessberg said: "Veterinary school requires a lot of support from your peers, professors, and family."

Mack agreed: "I don't think this career can be done without working with one another. Whenever I was willing to be vulnerable and felt like I needed more support, I could ask for it."

Victoria Marshall, small animal tracker from Pamplin, Virginia, echoed the importance of her team. "My team is my family and my fiancé. They've all been very supportive. You definitely need a good friend group and good family support system for veterinary school. It's a very rigorous program, but they make it easier to deal with."

CULMINATING AN ARDUOUS BUT REWARDING JOURNEY

Poised to join the veterinary community, students exhibit a newfound self-assuredness and resilience hard-earned through the four years.

"I think I'm a lot better at handling stress. I can take a step back and look at a situation and kind of analyze everything that's happening," Clay said. "Veterinary school teaches you to think differently."

"I'm probably better at managing my life than I used to be, being able to know when to stop," Loessberg said.

"There's so much material, and you want to keep going, and you could keep going forever, you could memorize everything. But, knowing what resources you have and how to go and look things up, I think that's really important."

"I've come a long way. And I've had a lot of ups and downs," Blatman said. "I've gotten to see myself overcome a lot of challenges. Veterinary school has challenged me in a way that I've really never had before."

"I'm grateful to have had the opportunity to be here, and I'm glad I chose to go here. Veterinary school was hard, but I will forever cherish my friendships here," shared Harper.

"I just feel like I've had a lot of opportunity to grow," Loessberg reflects. "And I feel ready."



"I'M PROBABLY BETTER AT MANAGING MY LIFE THAN I USED TO BE, BEING ABLE TO KNOW WHEN TO STOP. THERE'S SO MUCH MATERIAL, AND YOU WANT TO KEEP GOING, AND YOU COULD KEEP GOING FOREVER, YOU COULD MEMORIZE EVERYTHING. BUT, KNOWING WHAT RESOURCES YOU HAVE AND HOW TO GO AND LOOK THINGS UP, I THINK THAT'S REALLY IMPORTANT."
- EMMA LOESSBURG





"IN THE ER YOU WILL FACE THE ANGRIEST, THE SADDEST, AND THE MOST INTENSE PEOPLE YOU WILL EVER MEET. SO IT'S GOOD TO TALK ABOUT HOW TO MANAGE THAT."
- ANNA HOROWITZ

STUDENT EXPERIENCE

CRITICAL THINKING FOR CRITICAL CARE

EMERGENCIES FIND EVERYONE in life, eventually.

The same is true in veterinary medicine, even for clinicians who have purposely gone into a field other than emergency care.

"We need to get our students comfortable with managing emergencies because even if they don't choose to go into emergency-specific veterinary medicine, they're going to see emergencies," said Bobbi Conner, clinical associate professor of emergency and critical care medicine at the college.

"If they're going into clinical medicine, they're going to see things that clients didn't realize was an emergency, or if they're working in a rural area, people are going to come to them with an emergency. So, for me, it's really important that all of our students have that foundation."

Conner teaches the emergency and critical care course, required for third-year students in small animal, mixed animal and public/corporate tracks, and also is a key mentor and leader at the Veterinary Teaching Hospital (VTH) for residents, interns, and students in clerkships learning the ropes of emergency veterinary medicine.

Conner says that the word "critical" in the course's name could just as easily be for critical thinking as it could be for critical emergencies.

"I focus a lot more on the why, rather than the what," Conner said. "For their exams – 'Here's the scenario, tell me what you're going to do, and justify your answer.' And what they don't seem to believe until they go through it is that I'm going to grade them on their justification, not on their answer."

Veterinary medicine is not just about making a diagnosis and prescribing a pre-determined treatment from rote memory of facts and figures. Multiple treatments are potentially effective for the same diagnosis in the same animal, with possibly differing results from case to case.

And then there are clients' finances, limited resources, and ethics to consider, all of which are amplified in the crucible of emergency care requiring quick decisions with animals' lives and human emotions at stake.

"So what about when you've got two patients who both need a transfusion, but you've got one unit of blood?" Conner asked

rhetorically. "That's happened to me many times, and so I ask them now, 'What are you going to do? How are you going to choose?'"

Veterinary medicine also doesn't avoid people – human interactions can be at their most intense with the welfare of beloved pets on the line, and Conner's course helps students learn how to manage those interactions.

"You get really challenging things in the ER that you don't necessarily see in general practice," said Anna Horowitz, a Class of 2025 veterinary student from Bethesda, Maryland. "People are under a ton of stress. They love their pets, this may be the worst day of people's lives. In the ER you will meet the angriest, the saddest, and the most intense people you will ever meet. So it's good to talk about how to manage that, and I think it's really good she focuses entire lectures on that."

Horowitz originally aspired to be an equine veterinarian, but quickly changed her course after spending a summer during her undergraduate college years in Vermont at an emergency veterinary hospital. That eventually led her to the veterinary college at Virginia Tech with ambitions to pursue a career in emergency veterinary care.

"This is my life," Horowitz said. "I am amazed by the variety of the different types of cases you see every day. Every once in a while, something is going to walk in and you're thinking, 'I have never seen that before.'"

Amy Lin, a 2024 veterinary college graduate from Northern Virginia, isn't decided yet on whether she wants to enter emergency care or steer more toward veterinary oncology, but she said she has benefited from Conner's teaching and influence.

"She's really actively thinking of ways to help us learn these concepts, to present them in a fun and interactive way," said Lin, who will be undertaking an internship at a veterinary clinic in New York City to further her experience.

"She made it very applicable to clinical reasoning. It wasn't just, 'Here's the science behind it,' it's more about what you will see when you're out there. This is the logic pattern, your thought process when you approach this."

"Which I really thought was a new perspective. What is the animal telling you? And just based off of that, what can you do to help the animal?"

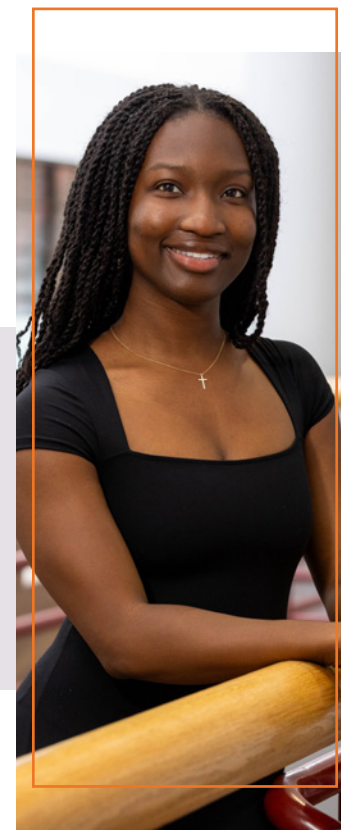


STUDENT EXPERIENCE

EMPOWERING TOMORROW'S LEADERS

Virginia Tech's Presidential Scholars tackle public health challenges

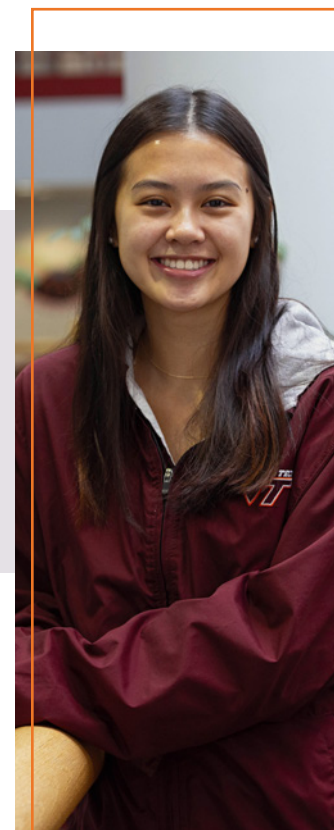
FOUR FIRST-GENERATION STUDENTS, empowered by the Presidential Scholarship Initiative (PSI) and Virginia Tech Advantage, are redefining the future of public health leadership through the growing Bachelor of Science in Public Health degree program within the Virginia-Maryland College of Veterinary Medicine.



NICOLE ODIBO, from Richmond, joined family members on a visit to their native Nigeria in 2018. Her mother brought boxes of food to distribute.

"Seeing the smiles on their faces after receiving it was really impactful for me," Odibo said. "It's probably the reason why I want to do public health – to see the impact I could have on different communities."

Odibo joined the First-Year Leadership Experience, a leadership development program; is a mentor for the Black College Institute; and is involved with F.I.R.E. (Forging Interest in Research and Engagement) Starters, a program opening research opportunities for minorities. The PSI also enabled Odibo to study in Switzerland.



KATHLEEN NGUYEN, from Fairfax, aspires to be a pediatrician.

Nguyen volunteers with Best Buddies, an organization that creates opportunities for people with intellectual and developmental disabilities.

"With this scholarship, my mom is at ease," said Nguyen, the oldest of five children. "I'm able to pursue an education so I can be a doctor one day without worrying about not having enough money to do that. This scholarship has given me everything that I need and more."



MILDA RUSSOM

examined the different parts of a sheep's brain in fifth grade through a program called Girls in Engineering and Math, igniting her passion toward becoming a physician assistant.

Russom, a native of Eritrea who grew up in Northern Virginia, is a member of the Virginia Tech Rescue Squad.

"Covering college is really expensive now, so I'm truly grateful and appreciative that I have an opportunity like this," Russom said. "I love the PSI program – they teach you a lot and they provide advising as well."



BETANEYA DANIEL,

from Woodbridge, first wanted to be a doctor like her parents envisioned when they immigrated from Ethiopia.

"Then I realized that I want to focus on health in the greater sense, and that's when COVID hit, so public health became a huge topic," she said. "I gravitated more toward public health because you're able to look at health in so many ways – environmentally, individually, in a community sense."

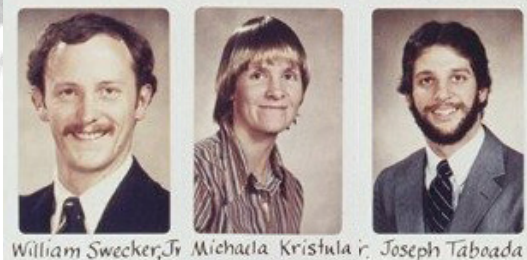
Daniel, who counsels students on substance abuse prevention through Hokie Wellness, ultimately wants a career in health care access consulting.



FEATURE

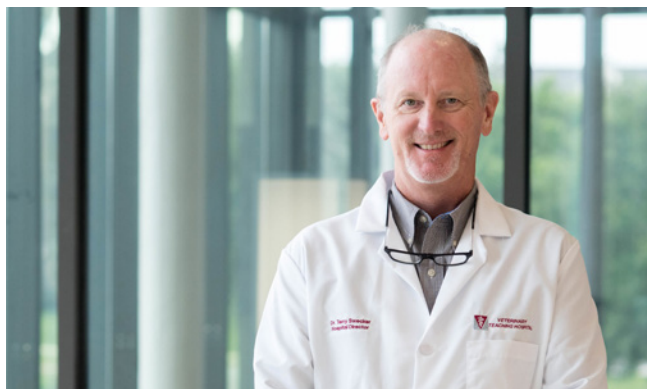
FIRST CLASS:

NEW COLLEGE LAUNCHES LONG ACADEMIC CAREERS



William Swecker, Jr. Michaela Kristula Joseph Taboada

TERRY SWECKER, MICHAELA KRISTULA, AND JOSEPH TABOADA were each among the first graduating class from the Virginia-Maryland College of Veterinary Medicine (VMCVM) 40 years ago in 1984, and each pursued a lengthy career on the academic side of veterinary medicine.



TERRY SWECKER

William S. "Terry" Swecker stepped down as director of the Veterinary Teaching Hospital at VMCVM on May 10 and officially retires from Virginia Tech on June 30, capping a 34-year career at the veterinary college of which he was among the first graduates in 1984.

Swecker, who started as a business major in undergrad but transferred to animal science, said he saw veterinary medicine as a way of working with farmers without owning a farm. The timing of his aspirations as his undergraduate studies were concluding in 1980 couldn't have been better.

"When you're sitting there looking at options and they're starting a veterinary school right here, you're thinking, 'That might work.'"

Swecker recalls starting classes in the University City office building and makeshift space in Saunders Hall before finally moving into classrooms in the Phase I construction of the now-sprawling VMCVM. "But it was all okay, because we didn't have anything to compare it to."



MICHAELA KRISTULA

While Michaela Kristula grew up living in multiple countries as her father served in the Foreign Service, being part of the first class of the veterinary college helped her find four-decade stability as a large animal field service clinician, teacher, researcher, and associate professor at the University of Pennsylvania.

Kristula finished high school in Mexico City, but her family had spent four years in Virginia, and her parents still owned a house in the commonwealth. After two years at Colorado State University, she transferred to Virginia Tech to finish an undergraduate degree in biology because "it was rumored there that Virginia Tech would have a veterinary school."

"I loved Virginia Tech," Kristula said. "I loved my undergrad, I loved veterinary school, and I probably would have stayed there forever if I had got a job there."

"We thought we were special," Kristula said. "Everything was about us. The whole faculty was new as well, so it was all new for them. We all enjoyed ourselves."



JOSEPH TABOADA

Echoing Kristula's observations, Joseph Taboada, who recently retired as a professor of small animal internal medicine after 35 years at Louisiana State University, recalls how special being among the VMCVM's inaugural class was.

"It was really a good experience," Taboada said. "It was a fairly small group of faculty that were there when we started, and they were just completely focused on us. And I don't know that I necessarily realized that at the time. But having been part of faculty since then, and recognizing all of the multiple hats that you have to wear and the multiple responsibilities that you have, I know that group of faculty were really just focused on us at that time. That was something pretty special."

A Georgetown University undergrad from Rockville, Maryland, Taboada applied to several established veterinary schools but accepted an offer from the newest one on the block, located at Virginia Tech but also carrying his home state in the name and its financial support.

"Their approach to medicine and the problem-oriented approach that they used, the clinical reasoning, that was what I was drawn to," Taboada said. "Honestly, that's what probably ended up pushing me toward internal medicine in the long run."





Want to read more about the Class of 1984? Visit *TRACKS* Magazine online!

FEATURE

FIRST CLASS: FROM STARTUP COLLEGE TO STARTUP CLINIC

STARTING FROM SCRATCH was nothing new for Valerie Campbell and Nancy Hall as they built a veterinary practice in burgeoning Northern Virginia in the late 1980s and early 1990s.

They had already come through the inaugural class at the new Virginia-Maryland College of Veterinary Medicine.

Campbell and Hall became friends and business partners studying together in the veterinary college's first graduating class at Virginia Tech, entering in the fall of 1980 and graduating in the spring of 1984.

"It was definitely interesting when we had one classroom in an office building and a library next to it across from the mall and Kroger's at the time," Campbell recalled.

"We weren't even on campus. And the labs were converted sheep barns." Blue Ridge Veterinary Associates, the clinic Hall and Campbell started in 1987

"I LOVE VIRGINIA TECH. I LOVE THE BLACKSBURG AREA. AND, YES, IT WAS A VERY, VERY GOOD EXPERIENCE DOWN THERE BEING IN THE VERY FIRST VETERINARY COLLEGE CLASS."
-NANCY HALL

as a mobile equine service, has grown into a thriving small-animal clinic in Purcellville, with 10 to 12 veterinarians who provide 24/7 emergency services, general veterinary and wellness care, and a long list of specialty and surgical options.

While the early days of the veterinary college faced limited resources, Campbell and Hall simply felt blessed to be in veterinary studies anywhere.

"I just embraced it as we were 64 people, and we had the entire college working for us," said Campbell, who did her undergraduate studies in biology at Mary Washington University.

"There were no seniors above us, there was no dilution of the attention that they were willing to give the first-time veterinary students for the first year."

"I did feel sort of privileged that there was no senior class above us," said Hall, who completed a bachelor's degree in animal science at Ohio State.

"We didn't have to compete with a class above us to get our hands on things."

Campbell and Hall look back in appreciation on their journey from being the pioneers for 40 years of veterinary college graduates to successful veterinarians and businesswomen. "I've always looked back fondly on that," said Hall.



FEATURE

FIRST CLASS: NICHOLS COMBINES MATH APTITUDE, ANIMAL INTEREST FOR CAREER IN PATHOLOGY

DON NICHOLS WAS THE ONLY math major to enter the first class of students at the veterinary college.

Four decades later, Nichols' math includes more than 30 years working for the federal government, a 40-year marriage to a classmate in the first veterinary college class, and a difficult-to-count number of animals on more than 100 acres in Northern Virginia.



Nichols' wife is Valerie Campbell, who along with fellow 1984 veterinary college alumna Nancy Hall started Blue Ridge Veterinary Associates in Purcellville. Nichols met Campbell and Hall on his first day of classes at the new veterinary college in 1980.

"I remember the first day quite well, because I was nervous," Nichols recalled. "I didn't know anybody. I went to the University of Virginia, which is not exactly known for producing veterinary students; they didn't have a pre-veterinary program. Most the students in my class had done undergrad at either Virginia Tech or the University of Maryland."

Veterinary college set Nichols on the path to a pathology career with the federal government, including lengthy stints at the National Institutes of Health, the National Zoo, and the U.S. Army Medical Research Institute of Infectious Diseases. As a civilian pathologist working with the Army, Nichols spent the last 14 ½ years of his career working with highly dangerous diseases such as anthrax, plague, and the hemorrhagic fevers caused by the Ebola and Marburg viruses.

"The rumor back then was there was going to be this veterinary school in partnership with the state of Maryland," Nichols said. "In the history of Virginia and Maryland, we don't necessarily cooperate a lot. But it came off, and just in the right time for me."

SPOTLIGHT

TERESA SOUTHARD SEEKS ANSWERS IN VETERINARY FORENSICS CASES

"THERE'S A SENSE OF SATISFACTION THAT YOU'VE CONTRIBUTED TO THE JUSTICE PROCESS."

AS A BOARD-CERTIFIED veterinary anatomic pathologist, Teresa Southard is no stranger to piecing together clues.

A specialist in necropsies and biopsies, Southard examines injuries and diseases to uncover causes of death or illness. She has a particular interest in forensic pathology, focusing on cases involving animal deaths related to illegal activity, such as neglect and abuse.

Working in forensic pathology can be emotionally challenging, but Southard finds motivation in the impact her work has on justice.

"There's a sense of satisfaction that you've contributed to the justice process," she said. Whether it's proving someone's innocence or ensuring a guilty party faces consequences, she finds it rewarding.

Southard's journey into forensic pathology began with a career in the Air Force and a Ph.D. in biomedical sciences.

While studying at Johns Hopkins University, she volunteered her necropsy skills at a Baltimore animal shelter, where she encountered cases of neglect and abuse.

After joining Cornell University, she gained further forensic experience, performing over 500 forensic necropsies and appearing as an expert witness in nine criminal trials.

In 2021, Southard joined VMCVM, where she collaborates with Baltimore City Animal Control on forensic cases. She explains that forensic pathologists must often go beyond typical necropsy procedures to meet court requirements. This involves careful documentation and even estimating the time of death to aid investigations.

"We have to document everything carefully because if we have to go to court, it's much easier to show a picture than describe what you saw," Southard said.

Despite the critical role they play, veterinary forensic pathologists face unique challenges.

Southard describes the "CSI effect," in which people expect quick, conclusive answers like in television shows. However, in veterinary forensic pathology, data is often lacking, making it difficult to find definitive answers.

Southard is pursuing a master's degree in veterinary forensic sciences at the University of Florida. As part of her thesis, she's collaborating with Virginia Tech's College of Engineering to study bone strength, aiming to create more reliable data for forensic investigations.

Southard also emphasizes the need to better prepare future veterinarians to recognize and respond to signs of abuse and neglect.

She delivers lectures on forensic examination and on testifying as an expert witness. Veterinarians rarely have training in those areas. There is currently no requirement for accredited veterinary colleges in the United States to address the topic, and a recent study showed that more than half of U.S. veterinary schools do not include animal abuse in their core curriculum.

"My goal is that every student who graduates from this school – or any vet school – should be thinking about animal abuse," Southard said. "They should be aware of what some of the common signs are, and they should know what to do when they suspect abuse or neglect, at the very minimum."

RADIATION ONCOLOGY ROCK STAR: ILEKTRA ATHANASIADI

IN ITS FOUR YEARS in operation, the Animal Cancer Care and Research Center (ACCRC) has treated thousands of cats and dogs and conducted research that not only advances veterinary cancer treatment but potentially human medicine as well.

Ilektra Athanasiadi, a radiation oncologist and assistant professor, has been a core part of ACCRC since its founding.

"There was nothing here! I was coming to their meetings with the construction company," she said, recalling the center's early days.

Athanasiadi specializes in using radiation therapy to treat pets with cancer.

"Some people say [this job] is sad, but I think it's really, really rewarding," she said. "We give hope to the owners, even if it's for a short time. Seeing them being happy that we can give them more time with their pets is amazing," she explained.

Her dedication attracts clients from across the state, making her one of only 140 veterinary radiation oncologists in the U.S. Her role involves collaboration, both in clinical practice and

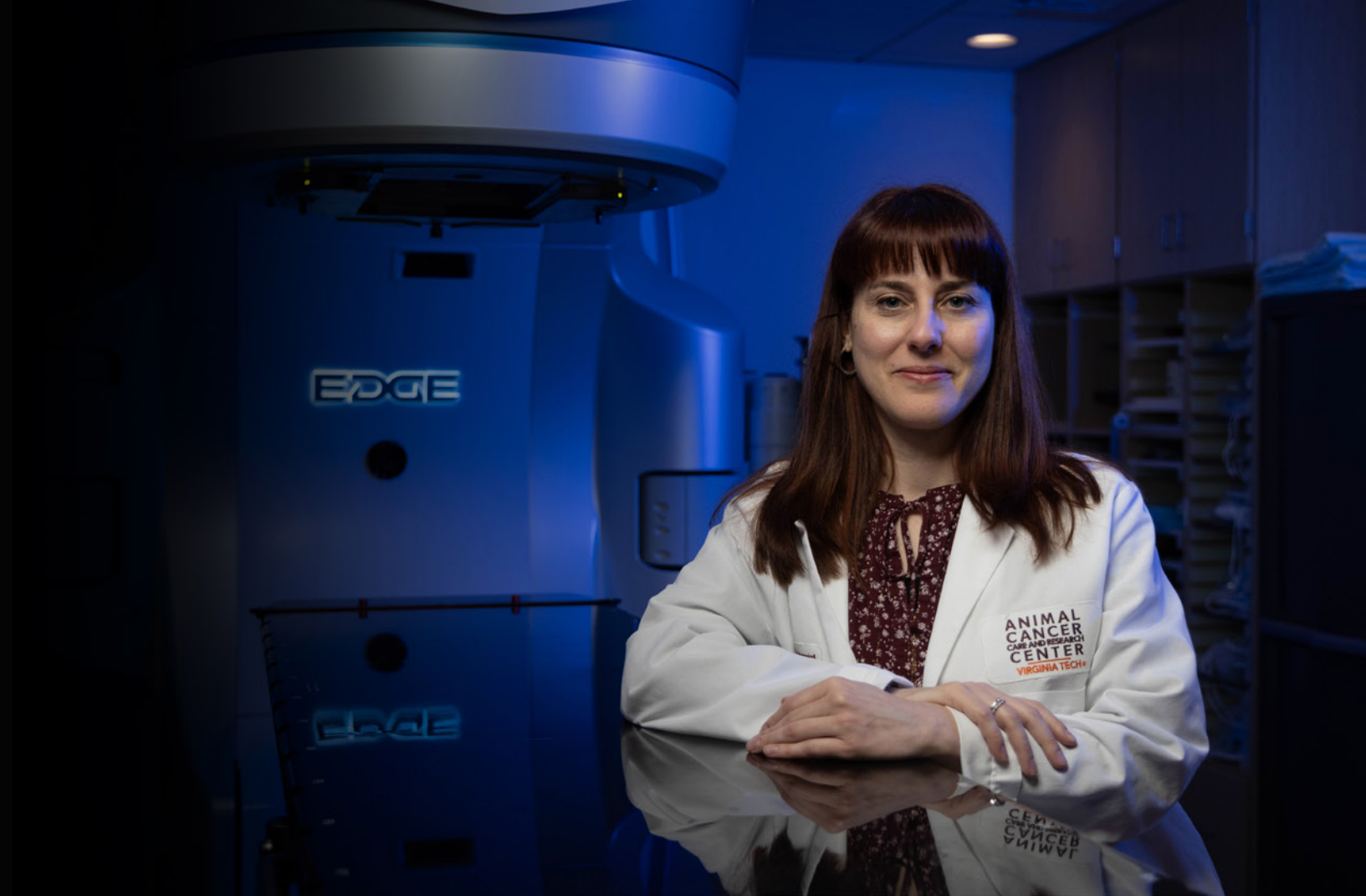
research. She's currently working with Robert Gourdie from the Fralin Biomedical Research Institute on a drug designed to heal heart muscle after a heart attack, which also shows potential for protecting healthy tissue during radiation treatment.

Additionally, she's in discussions with the Pulmonology Department at Johns Hopkins to develop a new method for delivering radioisotopes to the lungs.

Athanasiadi's path to oncology began in her native Greece, where her mother was a veterinarian. Despite her early ambition, she wasn't sure which specialty to pursue until her grandmother died from breast cancer, guiding her toward oncology.

After completing veterinary school and gaining experience in Greece, Germany, and Switzerland, she finally secured a residency at Purdue University. "It took me about 10 years to get into a residency in the United States," she said.

Through her work as a radiation oncologist, Athanasiadi is changing the lives of pets and pet owners across Virginia and beyond.



FLORI BLISS: A LIFELONG LEARNER

From her early days cleaning out stalls to her current role as chief of small animal physical rehabilitation at the Veterinary Teaching Hospital, Flori Bliss' journey has been built upon resilience, a passion for animal welfare, and a drive for continuous learning.

As she navigated the complexities of veterinary science, Bliss' path has been marked by not only her dedication and strength but also the critical support of mentors. Through her commitment and positive spirit, Bliss has become an inspiration for the next generation of women in STEM, demonstrating that leadership is not just about reaching the top but also about lifting others along the way.

Her shift from large to small animal care led her to the Licensed Veterinary Technician (LVT) program. As a surgical nurse in



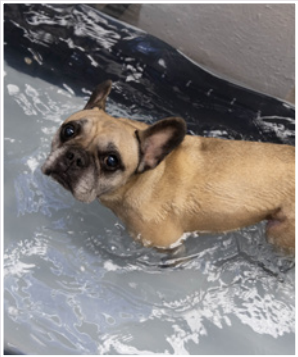
Central Sterile Supply, she discovered her interest in surgical procedures and saw the need for structured rehabilitation for animals recovering from surgery.

"You're spending more time with owners, prepping patients for surgery, and helping with discharging those patients," she said. This experience led her to physical rehabilitation, a relatively new field in veterinary medicine at the time.

Bliss recalls a turning point when a colleague handed her a flyer for a canine rehab certification program. "If it weren't for her handing that to me, I'm not sure I would have pursued it or even known about it," she said.

As chief of small animal physical rehabilitation, Bliss is shaping the future of veterinary medicine. She leads the rehabilitation service at the Veterinary Teaching Hospital, where she integrates hydrotherapy, therapeutic laser treatments, and customized exercise plans into patient care.

Bliss is also a mentor, guiding both students and licensed veterinary technicians. "I'm ready to take on the challenge," she said.





RESEARCH

HELPING DOGS LIVE THEIR BEST LIVES

Audrey Ruple collaborates with the Dog Aging Project, largest-known study of dog health

AUDREY RUPLE SAYS HER DREAM is to help dogs live to be 30 someday. But the relatively short life spans of dogs that grieve their owners so much also enable a more complete study of canine health that could shed light on how to increase longevity and quality of life for dogs and humans alike.

Ruple, the Metcalf Professor of Veterinary Medical Informatics, serves on the executive leadership team of the Dog Aging Project, believed to be the largest study ever conducted of canine health and living environment.

Ruple explains that the Dog Aging Project is a long-term study examining dogs' health and welfare throughout their lives, gathering annual data to identify factors that influence their health.

"We're collecting information on these dogs annually, getting a data set that spans their entire life span," she says, which provides an extensive data source for examining health trends. The project is supported by more than 40 educational, research, and clinical institutions and receives primary funding from the National Institute on Aging, part of the National Institutes of Health.

Ruple's involvement in the project comes from her expertise in clinical trials, epidemiology, and veterinary science, but also from her love of dogs. She describes the research as an intense collaborative effort involving universities, nonprofit organizations, and private firms.

The data collected offers significant opportunities to study both canine and human aging due to the shared environments and genetic similarities between humans and dogs.

The success of the Dog Aging Project depends heavily on volunteers. Originally, the goal was to attract 10,000 participants; however, by early 2024, over 47,000 dog owners had signed up. These volunteers are asked to provide detailed information about their dogs' diet, lifestyle, habits, and environment, among other factors. Some participate in more in-depth studies involving direct sampling from their dogs' environment.

"The dog owners are our greatest resource in the project," Ruple says, emphasizing that much of the data comes directly from the dedicated participants. Their commitment allows the Dog Aging Project to gather rich, meaningful information that can contribute to a deeper understanding of both canine and human health and aging.



"A lot of the environmental factors that influence the health of dogs also affect humans in a very similar way, because our genetic structure is so similar," said Ruple.

RESEARCH

USING AI TO MAKE PET CANCER DIAGNOSTICS MORE AVAILABLE AND AFFORDABLE

A PIONEERING RESEARCH PROJECT led by Ph.D. student Christina Pacholec at the veterinary college aims to make significant strides toward revolutionizing lymphoma diagnosis in dogs.

This form of cancer, among the most common in canines, currently requires multiple veterinary visits and costly tests for an accurate diagnosis. Traditional methods like biopsies are invasive and time-consuming, but Pacholec's project aims to change that by leveraging artificial intelligence (AI) to create a more accessible, affordable, and less invasive diagnostic process.

The research involves training an AI tool to analyze cytological images – essentially, examining cell samples under a microscope – to detect early signs of lymphoma. By using over 10,000 lymph node aspirate images from the Veterinary Teaching Hospital, the team aims to train the AI to identify differences between healthy and lymphoma-affected samples. The project's success could lead to early detection, allowing for earlier interventions and improved outcomes.

The second phase of the project involves a technique known as transference, enabling the AI model to identify disease patterns even earlier. This adjustment could drastically improve the accuracy and timing of lymphoma diagnosis, aligning with the "Spectrum of Care" philosophy, which seeks to increase the range of affordable diagnostic options.

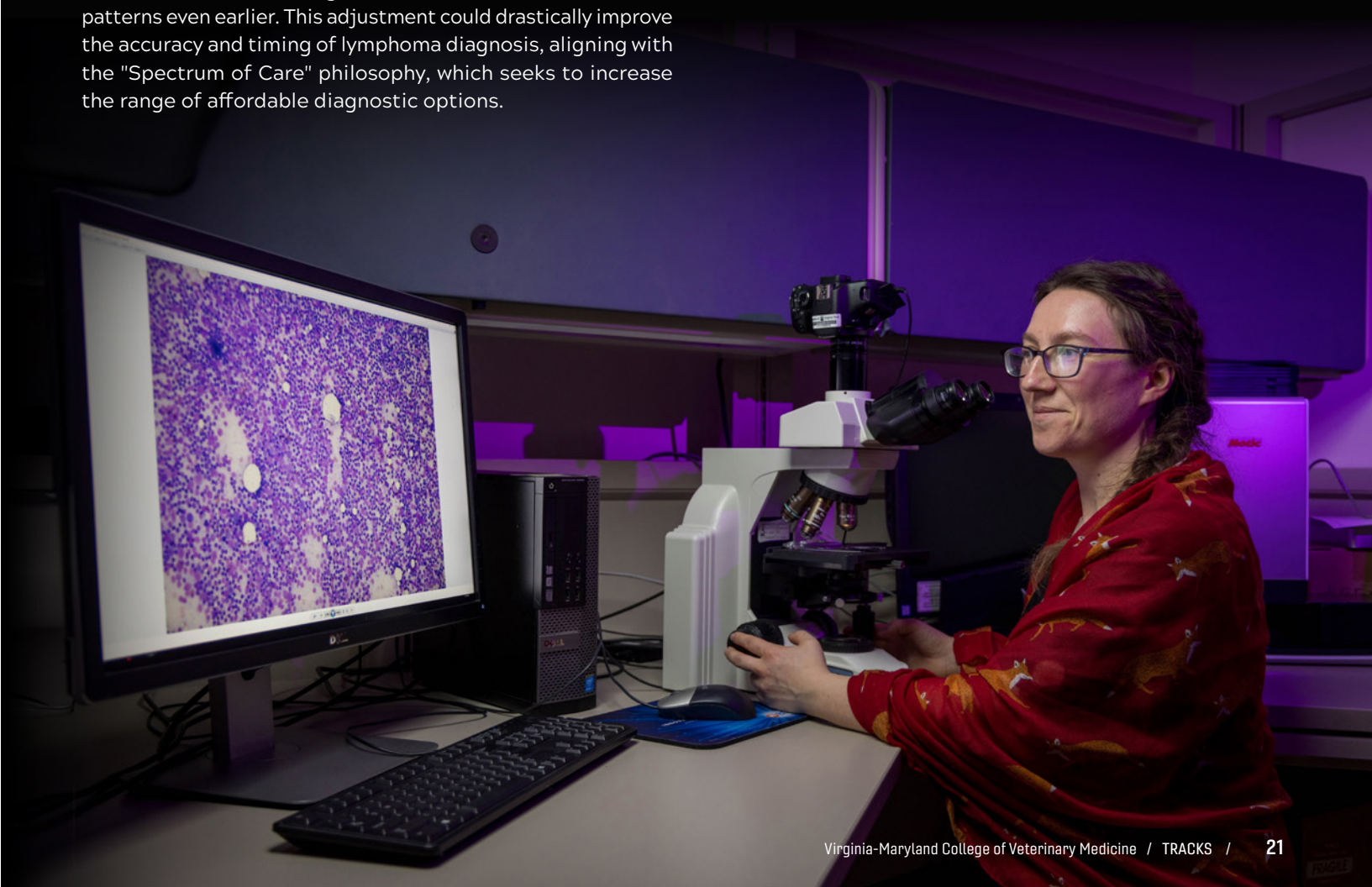
Pacholec's journey into this innovative research began with her desire to make a significant contribution to veterinary medicine. She has a strong clinical background, which has given her a unique perspective on patient care and diagnostics.

"The clinical work only helped because I have seen the differentials, I know the patients," Pacholec said.

Her mentor, Kurt Zimmerman, praises her proactive approach to learning new skills. "Christina's commitment to enhancing her skills in bioinformatics and computational pathology is crucial. Her diagnostic insight and understanding of disease pathogenesis are exceptionally well-developed," he said.

The research is supported by a series of grants, including initial startup internal funding from the college, contributions from the AKC Canine Health Foundation, and a significant grant from the Morris Animal Foundation.

Looking to the future, the project aims to explore broader applications for the AI model, such as identifying minimal residual disease. Pacholec's goal is to collaborate with experts in computer science and engineering to drive innovative research across multiple fields.





RESEARCH

STANTON FOUNDATION GRANT FUNDS CANINE HEART RESEARCH

New research aims to simplify early detection of mitral valve disease in dogs

MITRAL VALVE DEGENERATION is common among small dogs as they age. It's often asymptomatic and not always lethal but can lead to heart enlargement and heart failure. Medications can reduce the impacts and delay the onset of heart failure.

A \$141,000 grant from the Stanton Foundation will fund research by the college to determine if primary care veterinarians using only a stethoscope and chest X-rays can be effective in identifying the dogs that would benefit from medical treatment for myxomatous mitral valve disease before symptoms have occurred.

The research supports the Stanton Foundation's focus on "Spectrum of Care," a concept also embraced by the veterinary college, its Veterinary Teaching Hospital and Small Animal Community Practice veterinary clinic.

Clinicians provide a variety of care options and work with the client to decide together which approach best meets a pet's and the family's needs.

"Clients have a variety of abilities, both from an access standpoint and a cost standpoint," said Sunshine Lahmers, clinical associate professor of cardiology and the research's principal investigator. "The Spectrum of Care concept from the Stanton Foundation is for all clients to feel like they can provide their pets with quality care, even if they can't pursue the gold standard testing."

The study aims to validate the accuracy of simpler diagnostic tools to identify dogs with mitral valve disease that would benefit from treatment without the need for echocardiograms.

"The goal is to see if those techniques work well and have some evidence-based procedures to help general practitioners, like me, be able to make those decisions when we can't send those dogs to a cardiologist," said Jenny Marin, clinical assistant professor in community practice.

The first stage of the study involves reviewing 150 radiographs of asymptomatic dogs with murmurs evaluated at the teaching hospital over the past decade. Kurt Zimmerman, professor of pathology and informatics, will create a decision tree to help clinicians identify cases of asymptomatic mitral valve disease that would benefit from treatment. The second stage will include a pilot study involving 30 dogs to test the model.



FEATURE

PERFECTING PERFORMANCE

New equine performance center impresses as it begins serving horse community

LEADING HER HORSE INTO THE NEW INDOOR ARENA at the Marion duPont Scott Equine Medical Center (EMC) for the first time, equine professional Hannah Schofield was quite impressed.

"Wow, can I have one?" Schofield (pictured on next page) said of her reaction entering the Jane and Stephen Hale Equine Performance Evaluation Center in Leesburg. "It's beautiful. I mean, every detail is right where it needs to be. The footing is great. They have everything they need to do a full complete evaluation of your horse on every surface. It looks great."

Schofield, in a sense, does get to have the new indoor arena, along with thousands of other equine professionals and enthusiasts across Virginia and the mid-Atlantic region.



Want to see more of the new performance center? Visit *TRACKS* Magazine online!

The Equine Medical Center now serves more than 2,400 patients annually.



"I HAVE LOTS OF FRIENDS AROUND THE COUNTRY WHO HAVE TO TRAVEL HOURS AND HOURS TO GET THIS KIND OF CARE AVAILABLE TO THEM."
-HANNAH SCHOFIELD

"I have lots of friends around the country who have to travel hours and hours to get this kind of care available to them," said Schofield, owner of Milestone Sport Horses in Lovettsville, 15 miles from Leesburg in Northern Virginia horse country.

"We're very, very spoiled and lucky to have such a world-class facility at our doorstep."

Schofield, originally from Great Britain, is an eventer who trains and rides horses in cross country, show jumping, and dressage.

The new arena, dedicated in December, has started being used this spring by EMC clinicians to evaluate clients' horses. The Leesburg-based EMC is a 24-hour emergency equine center and teaching hospital of the Virginia-Maryland College of Veterinary Medicine, based on the Virginia Tech campus in Blacksburg.

The new facility, built by Scott-Long Construction of Chantilly, Virginia, has 21,000 square feet of floor area and three riding surfaces to help clinicians better understand and diagnose how horses are affected by various injuries or lameness as they move.

The indoor arena includes a riding area for under-saddle diagnostics, two jogging strips, and two lunging areas. The riding area has an Attwood Equestrians Pinnacle surface, a soft synthetic footing that absorbs moisture and prevents dust buildup. Schofield described it as like "riding on a cloud."

One jogging strip and one lunging area have an asphalt surface while the other jogging strip and lunging area have a more rubbery Padenpor seamless soft surface by Abacus.

While the new equine performance center offers obvious benefit with

its three surfaces and large area with protection from the elements, a veteran clinician at the center sees the comfort of enclosure as a key advantage of the new facility.

"Having an enclosed environment, for me, is most important for having the horse feel less distracted," said Jennifer Barrett, the Theodora Ayer Randolph Professor of Equine Surgery at the center.

"It's very normal for most horses that are performance horses to work inside an indoor arena. Bringing them into an enclosed area where you don't have to worry about them getting distracted by other horses makes a big difference in our ability to detect lameness and other problems."

The new facility adds to the expertise, loving care for horses, and personable service to clients provided by the EMC, Schofield said.

"The minute you get here, you get greeted by a friendly face, which is what you want, people will put you at ease right away," Schofield said. "And in spite of the fact you're working with some of the smartest people you'll probably meet, I think they break it down in a way that's understandable and digestible to everybody, which is really great."

The new facility is a dream come true, Barrett said.

"It's amazing. I'm thrilled," Barrett said. "I've been dreaming about something like this for the 17 years that I've worked here. And now that it's here, I have to pinch myself every day I come to work because this is amazing."

"It was built with every part of what I dreamt of and I got to have input into the surfaces and into the design."

EQUINE SPORTS MEDICINE SPECIALIST COMPLEMENTS COMPREHENSIVE SPORTS MEDICINE FACILITIES

GUSTAVO ZANOTTO JOINED the Marion duPont Scott Equine Medical Center (EMC) on Jan. 10 as a clinical assistant professor of equine sports medicine and lameness.

Born in Rio de Janeiro, Brazil, Zanotto moved at an early age to Curitiba, the capital and largest city in the state of Paraná in southern Brazil. There he grew up riding horses on a family farm, focusing his attention on show jumping and a little dressage. Zanotto always believed that he would work with horses, and as he progressed through his veterinary education, he found his calling in the field of equine sports medicine.

In 2008, Zanotto completed his veterinary degree at Federal University of Paraná in Brazil followed by an internship at University of Sao Paulo (USP), also in Brazil, in 2009. He stayed on at USP to complete a research fellowship before completing his master's degree in veterinary surgery in 2012.



Moving to the United States in 2013, he joined Colorado State University in Fort Collins, Colorado, completing an internship in equine musculoskeletal radiology in 2015, before staying on for an equine sports medicine and rehabilitation residency, which he completed in 2019. During this residency, Zanotto also successfully completed a Ph.D. in Clinical Science.

In 2020 Zanotto joined Texas A&M University in College Station, Texas, as a clinical assistant professor of equine sports medicine and imaging, moving into the position of service chief for the department in 2022.

Zanotto's interest in the Mid-Atlantic region began after he spent time with Kent Allen, a veterinarian who owns Virginia Equine Imaging in Middleburg, Virginia.

Zanotto came to love the location, and due to his desire to continue to work in academia, the EMC looked like a good fit. Staying in academia would allow Zanotto to continue to focus on clinical work while also being able to teach and work on research projects that particularly interested him.

This coupled with the high level of competition venues and athletic horses in the Mid-Atlantic region, and the suite of imaging modalities and comprehensive evaluation facilities for equine athletes at the EMC, were driving factors to Zanotto accepting his new position.

Fresh in Zanotto's memory are the struggles that he experienced during his learning journey, which drives him to pay particular attention to students, interns, and residents that rely on clear and precise direction.

"One of the challenges of teaching as a specialist in a particular field is to ensure that confidence is supported and students are encouraged to broaden their knowledge by reading academic papers, understanding the science behind the treatment and how to apply that science during the evaluation process," Zanotto said.

He plans to focus his research efforts on the diagnosis and treatment of sport horses with particular attention to joints, tendons and orthobiologic visionary medicine (regenerative medicine).



As part of the faculty team at the EMC, Zanotto will focus his attention on the evaluation and treatment of equine athletic injuries.

Competing at equine events from an early age has provided Zanotto with a unique perspective on the work that an athletic horse is expected to do and how best to approach the treatment of sometimes complex performance-limiting issues in the equine athlete.



IN THE HOSPITALS

ROUND-THE-CLOCK CARE SAVES RAMBUNCTIOUS COLT

ATTENDING TO THE NEEDS of a pregnant mare with medical complications does not fit into regular veterinary office hours.

As foaling became imminent for an 18-year-old thoroughbred named Miss Ocean City, clinicians Megan Marchitello and Krista Estell stayed for several nights at the EMC to ensure they would be present for the birth.

Miss Ocean City had been deemed a "high-risk" mare having suffered complications in prior pregnancies. She had also been diagnosed with placental edema.

Miss Ocean City was taken to the EMC in late January, 319 days into what is typically about a 340-day pregnancy. She was fitted with a foal alert device and placed in a video-monitored, well-padded stall.

Eighteen days after the mare's arrival, testing revealed a positive anti-Ua antibody, which indicates a risk for her foal developing neonatal isoerythrolisis. When a mare has this condition, the first milk, or colostrum, can be toxic to the foal. Pre-screened colostrum was sourced from Kentucky to be used for the foal after birth.

On Feb. 21, Miss Ocean City gave birth in the early morning to a beautiful dark bay colt.

After a tense two hours, the colt was standing confidently. The next day, testing determined he could safely nurse from Miss Ocean City, but additional testing of the colt showed partial failure of passive transfer, so he was given plasma.

Five days after giving birth, Miss Ocean City was able to leave the hospital with her colt by her side.

"Miss Ocean City gave us an exceptional colt who is delightful and full of personality," said Ann Backer, the horse's owner and a longtime supporter of the EMC. "Many thanks to EMC staff for three weeks of around-the-clock care given to this mare who has always had difficulty foaling."



IN THE HOSPITALS **JOE'S JOURNEY AT ACCRC INSPIRES OWNERS AND PROFESSIONALS**

MIKE MAYO DIDN'T CHOOSE his dog Joe; Joe chose him.

Mike and his wife, Jeanne, visited Angels of Assisi foster home in Roanoke in 2012 to look at mixed-hound puppies Mike had seen online.

But it was Joe who approached him with soulful eyes and a lick on Mike's mouth, forging an unbreakable bond that would lead through a life of love and fun with the Mayos and Joe's sister Maggie, but also a journey through life and death, compassion and perseverance, at the hopeful frontier of faith and the cutting edge of science.

Joe's journey after being diagnosed with lymphoma in spring 2021 led Mike to the Animal Cancer Care and Research Center (ACCRC) in Roanoke. This VMCVM teaching and research hospital aims to extend the quality of life for pets through compassionate care while undertaking groundbreaking research to uncover new treatments for both animals and humans.

Joe's perseverance and the commitment of the ACCRC team helped Joe exceed expectations, extending his life well beyond the few months that was initially projected.

Despite his battle with the originally diagnosed lymphoma and a subsequent second form of the disease, Joe lived with energy and vitality until Thanksgiving 2023.

"He was so full of life, happiness and love," said Mike Mayo, a national account manager for Everon Solutions. "He was like

that all the way up to the very end. He was still like a puppy. He was 'my boy' and there's no way I was going to give up on him."

"Joe personified the spirit of our mission at the ACCRC," said Dan Vruink, administrator of the ACCRC. "His battle against cancer served as an inspiration to everyone involved in his care."

Joe's journey through treatment, including a 20-week regimen of chemotherapy, was characterized by the compassionate care he received at ACCRC. The team treated Joe and the Mayos like family, offering support, compassion, and even allowing Joe to rest in doctor's offices and students' lounges instead of being caged.

"I asked Dan [Vruink], 'Do you teach these people this compassion and positive attitude that they have?'" Mike said. "And he said, 'We recruit those kind of people.'"

Although Joe eventually was euthanized on Thanksgiving 2023 after a second form of lymphoma rapidly overtook him, the care he received and the bond he shared with the ACCRC team left a lasting impact.

The Mayos remain in touch with the ACCRC team.

"Mike and Jeanne Mayo have become part of the ACCRC family," Vruink said. "Their unwavering commitment to Joe was evident as they collaborated closely with our entire team during his journey. Their steadfast support for the ACCRC has left a permanent mark, and we will forever cherish their friendship."

"SIXTY YEARS AGO, IT WAS PROBABLY SOMETHING NOBODY EVEN DREAMED OF DOING, ESPECIALLY IN VETERINARY MEDICINE. IT'S THE GOLD STANDARD FOR CARE, SAFETY, AND IT WORKS, AND I THINK IT'S REALLY COOL." -JUSTIN GANJEI

IN THE HOSPITALS

LOKI'S LEAP

The golden retriever who overcame the odds with groundbreaking care

IN A DISPLAY OF REMARKABLE innovation, expertise, and heartfelt care, a team at the Veterinary Teaching Hospital recently embarked on a lengthy and involved procedure to improve the life of Loki, a cherished 1-year-old golden retriever.

Through the skilled hands of Audrey Keebaugh, Giulio Menciotti, and Justin Ganjei, Loki underwent a significant, yet minimally invasive, procedure to address a unique liver condition that impeded his normal blood flow.

Loki was diagnosed with a rare condition in which his blood bypassed his liver instead of being cleaned by it, threatening his future well-being without medical intervention.

The team combined their expertise to tackle Loki's challenging condition. Keebaugh, a clinical assistant professor specializing in small animal internal medicine, and Menciotti, an assistant professor in cardiology, were joined by Ganjei, head of minimally invasive surgery and interventional radiology at Veterinary Referral Associates.

Ganjei is a proud Hokie, receiving his Bachelor of Science and Doctor of Veterinary Medicine degrees from Virginia Tech, and he serves as an adjunct assistant professor of small animal surgery at the college.

The procedure aimed to correct the abnormal blood flow, ensuring toxins would be appropriately processed by Loki's liver, thus preventing severe health issues, including neurologic symptoms and seizures.

"Instead of going to the liver, the blood took a shortcut, which could make Loki very sick," Ganjei explained. "We aimed to restore the correct blood flow and ensure his liver could function properly."

Summarizing the meticulous and innovative approach, Menciotti said: "The procedure involved placing a stent and deploying about 20 coils to manage the blood flow carefully. This precision and real-time monitoring via fluoroscopy and pressures were crucial for the best outcome."

Using minimally invasive techniques meant Loki benefited from fewer surgical risks, less pain, and a quicker recovery.



"The complexity of selecting and accessing the specific vessels was challenging, but expected, and having Dr. Ganjei with us was invaluable," Keebaugh said.

Ganjei is a self-proclaimed minimalist. "I think it's exciting, you know, to be able to do something like this," Ganjei said. "Sixty years ago, it was probably something nobody even dreamed of doing, especially in veterinary medicine. It's the gold standard for care, safety, and it works, and I think it's really cool."

Loki's owner Kristina Hollowell was fully informed about the risks and potentials of the procedure. "Knowing all the possibilities was crucial for me. While the procedure carried risks, being informed, and trusting the team made this journey one of hope," she said.

"I do human medical malpractice defense," said Hollowell. "It comes with a lot to think about, and I was probably more informed than most. If I had questions or wanted to discuss different options and why we were leaning this way versus this way, the

doctors were great at answering every question and weren't upset that I could talk about it. It was scary, but they were great about keeping me informed the whole time, which was wonderful."

As Loki's recovery progressed, his energy and spirit rebounded quickly, much to Hollowell's relief and joy.

The collaborative care Loki received from the medical team, including the exceptional support from fourth-year veterinary student Emily Jarvis, exemplifies the profound impact of compassion in veterinary medicine.

"Emily was fantastic," Hollowell said. "She kept me updated and she gave me a phone number in case I had any questions or concerns or wanted to check in outside of her normal 7 to 7. She spoiled him because he's a little high maintenance. She would sit with him while he ate to keep him company."

Loki's recovery and the successful procedure illustrate the power of innovative care and the deep bonds between pets and their owners.



IN THE HOSPITALS **TEACHING HOSPITAL TEAM HELPS CHOP SURVIVE TOXIC INGESTION**

WHEN APRIL AND BRIAN BARLOW let their dogs out on their property in Princeton, West Virginia, little did they know that Chop, their curious Labrador retriever mix, would follow his nose into some almost deadly trouble.

Thanks to attentive veterinary care and an emergency referral to the Veterinary Teaching Hospital, Chop was able to recover from neurological intoxication.

About an hour after letting Chop outside, Barlow looked outside to find Chop shaking uncontrollably.

They took Chop to their local veterinarian, Michelle Postle at Happy Tails Veterinary Clinic. Chop's tremors soon progressed to seizures, and he was vomiting violently.

Postle called the VTH, where veterinary neurologists advised her on doses and medication.

"If it was not for their vet calling us, there is no question the dog wouldn't have made it. What she started with

taking initiative with stabilization is very much why he is alive today," said neurology/neurosurgery resident Leanne Jankelunas.

Before Chop arrived, the neurology and critical care teams met to come up with a game plan to address the seizures, potential brain swelling, and the medications Chop would need to pull through.

"The moment he arrived, he was a combination of anesthetized and comatose," said Laura Vega, clinical assistant professor of emergency and critical care medicine.

"It was all hands on deck. It was fantastic to see multiple services coming together to get everything done so quickly."

Chop was intubated and received medication to decrease brain swelling, reduce convulsions, and to control his tremors.

Activated charcoal helped absorb toxins and intralipid therapy, a fat emulsion

given intravenously, drew toxins from tissues into the blood, where they can be more easily eliminated.

"It takes a village. I am really happy to have the ICU technical staff that I have – we were working together through the night. They really kept him alive and we worked so, so hard. It was a huge effort," said Vega.

Aspirating on his own vomit caused severe infection and inflammation in Chop's lungs, but Chop's liver and kidneys were unscathed.

Testing found that Chop had consumed tremorgenic mycotoxins, which can grow on moldy food and compost piles.

"It turns out that he's a little miracle kid," said Vega. "Neurologically, he was almost back to normal within 24 hours."

"We never dreamed we would be picking him up like this," said April Barlow. "If it wasn't for the VTH team and Dr. Postle's team, our baby wouldn't be coming home with us."

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Philanthropic support is essential to realize this vision without increasing the financial burden on future generations of veterinarians. Your generosity will create a lasting legacy, impacting countless lives and shaping the future of veterinary medicine. Partner with us to build a healthier tomorrow for all.

"Like any medical industry, we evolve - we embrace new technologies, and expand services to better serve our patients. As we continue to evolve, we will see new areas of need, new technologies, and new therapies. We have to create space for our students, interns, and residents to actively learn in an experiential environment."

– Tanya LeRoith, DVM '99
Director of the Veterinary Teaching Hospital

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