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I trust that all of you are doing well and have settled into the new year!

The opening of our UGA Veterinary Medical Center—literally a year ago this March—freed up some badly needed space on our main campus, which means that our transformation continues. We are about to witness the result of our first major repurposing of space in our old Veterinary Teaching Hospital: the Center for Vaccines and Immunology. While UGA CVM researchers have delved into vaccine work dating back to our founding, the advent of our CVI marks a new brick-and-mortar facility on our campus solely devoted to the research and development of vaccines. For more details about this new facility, check out the story on page 4.

The changes afoot don’t stop there. Among the news we share in this issue:

- Faculty in our Poultry Diagnostic and Research Center and Veterinary Diagnostic Laboratories have been working with state and federal officials and the regional poultry sector to prepare for a possible outbreak of highly pathogenic avian influenza.
- After a lengthy search, we are proud to introduce our new Harbor Lights Chair in Small Animal Studies, whose work focuses in the realm of absorbable polymers, biofabrication and tissue engineering.
- That era of having little elbow room at our CVM did lead to some good. Find out what happened in our Department of Infectious Diseases when a virologist and a disease ecologist/entomologist shared an office.
- Six of our students spent summer 2015 in varying locations around Southeast Asia. I hope you’ll enjoy reading Ashlynn Turner’s (DVM 2018) deeply personal story about her immersion in Indonesia’s culture, as well as the photos from Ashlynn and her five schoolmates, who also share snippets from their journeys.
- Last, but not least: Kathy Bangle, a pillar of our CVM family since 1999, has moved up to a new position in UGA’s main development office. We now have a new director of Development and a new director of Veterinary External Affairs, both very friendly and familiar faces. We also have two other new faces on our team.

Don’t forget that our upcoming annual Veterinary Conference and Alumni Weekend is early this year. I hope I will see you in Athens during the March 11-12 event.

Best wishes to all of you in our community for peace and prosperity in 2016! Thank you for all you do to help our CVM thrive!

Sheila W. Allen
Sheila W. Allen
Dean
CENTER FOR VACCINES AND IMMUNOLOGY TO OPEN SPRING 2016

By Tara Bracken

This spring, the Center for Vaccines and Immunology will open the doors of its newly renovated research facilities. Housed in the old Veterinary Teaching Hospital space, the Center will eventually accommodate up to 10 research groups comprising 100 total faculty and staff. In addition to training future scientists, the Center’s researchers will focus on expanding their understanding of the immunology of infectious diseases and how vaccines work in different populations based upon age, gender and ethnicity.

“We want to know more about why people and animals react differently to vaccine formulations so that we can construct vaccines that work well in as many people and animals as possible,” said Ted M. Ross, PhD, a Georgia Research Alliance Eminent Scholar in Infectious Diseases who also serves as the CVI’s director.

The CVI’s initial renovations will accommodate between four to six research groups, which will occupy the space within the first five years. The plan is to expand the facility as more funding becomes available, with the goal of ultimately housing 10 laboratories. The first phase of renovations will convert a portion of the first floor of the old VTH to roughly 15,000 square feet of state-of-the-art laboratory space. Another 12,500 square feet of space will become available to researchers by the time the Center’s renovations are completed. The renovations are supported by the GRA, the Office of the Vice President for Research, the Office of the Provost, the College of Veterinary Medicine and the Department of Infectious Diseases.

Given the long history of vaccine research and development at the university, form new collaborations between investigators and provide access to high-end facilities and instruments. Though the vacancy left by the teaching hospital’s recent move to its new facilities created an ideal opportunity to give the CVI a home, the CVI itself is the culmination of years of planning.

“The idea of the Center actually goes back to 2007,” explained Fred Quinn, MS, PhD, who heads the Department of Infectious Diseases and is a founding member of the CVI. “In cooperation with UGA Vice President for Research David Lee, we put in a proposal to a Board of Regents initiative for hiring seven faculty in Infectious Diseases and we won the award.” Five of the seven faculty hired are full-time or joint appointments in the CVM. One of the resulting hires was Don Harn, MS, PhD, a GRA Distinguished Investigator in Infectious Diseases who joined the CVM in March 2009.

“When we were hiring Don, one of the discussion points with him was the development of some more coordinated effort toward a vaccine center,” said Quinn. With that began a nearly decade-long collaboration to garner the funding and support required to establish such a center.
The final push to make the CVI a reality came with the early 2015 hiring of Ross, who was serving as director of the vaccines and viral immunity program at the Vaccine and Gene Therapy Institute of Florida. Ross brings with him his extensive experience in designing, developing and testing novel vaccine candidates, particularly against viral diseases. His current research and development collaboration with pharmaceutical giant Sanofi Pasteur has resulted in an experimental universal influenza vaccine, which Sanofi Associate Vice-President for Research Harry Kleanthous, PhD, announced at the World Vaccine Congress in Madrid, Spain, in November.

“You need someone to materialize the whole idea of a vaccine center, to spearhead that effort, and I think Ted Ross is the perfect person to bring this together,” said fellow CVI investigator Biao He, PhD, who is both a GRA Distinguished Investigator and the Fred C. Davison Distinguished University Chair in Veterinary Medicine.

Building a formal infrastructure for vaccine research and development promises to provide a host of new benefits for the UGA faculty and students involved. “The collaboration, the synergy, I think that’s the main thing,” said He, “but also the Center will definitely benefit our effort to have a large program project to compete more effectively with other institutions for federal and industry funding.” Negotiations are ongoing with Sanofi Pasteur to provide funding for the Center, as well as to aid in the translation of basic research performed by CVI researchers into vaccine candidates for human clinical trials.
The new lab spaces in the old teaching hospital also provide an opportunity to gather investigators focused on vaccine development and immunology under one roof. “Sometimes you can have somebody you want to work with, but they’re in a different building and they might as well be in a different country,” said Ross. “With a facility, now you have people of like minds all in the same location and you can synergize your different expertise to not only develop vaccines, but also to understand how vaccines work and to understand the host-pathogen interaction.” Providing the CVI with a home base in one central location will also facilitate the establishment of state-of-the-art core facilities, providing ready access to a range of high-end instruments from microscopes to flow cytometers. The facility will help attract new talent, too. Current plans are for five new professors to join the ranks of CVI faculty.

The CVI’s physical presence promises to advance the educational goals of the University much as its research goals. “For the Center, one of the goals is to train the next generation of scientists,” said Ross. “We want to get them involved in areas that they might not have as much opportunity to now by bringing in new faculty that have a vaccine-related or immunology-related focus and new pathogens that we don’t currently use on this campus.” The presence of an organized program and solid infrastructure for the study of vaccines also enables investigators to write a more competitive application for a training grant from the National Institutes of Health. Such a training grant would provide graduate students with funding for their stipends, research projects and travel to scientific meetings.

With the College of Veterinary Medicine as the Center’s home base, vaccine investigators will have access to unique resources unavailable to researchers at other institutions. “We have the facilities to do many things that other people cannot do,” said He. “We have animal model choices that no one else has as much access to as we do, and also the veterinary expertise—we have people have that available to them,” said Trent. “I think it’s amazing. There’s a lot that can be done here.”

The founding researchers of the CVI hope that, given time, the unique opportunities afforded by the Center will help to promote the infectious disease research being performed at UGA and encourage a new level of collaboration both on campus and off. “You put yourself out there and people see what you’re doing, and maybe there’s more interaction—not just within the department, or college or the university, but among institutions as well,” said He. “Maybe this will become the nucleus of much greater things.”
A research team based at the UGA College of Veterinary Medicine has discovered a novel gene—erm(46)—that confers antibiotic resistance in Rhodococcus equi, a soil-dwelling bacterium which commonly infects foals and causes opportunistic infections in immunocompromised people. The finding was made in collaboration with researchers at the University of Edinburgh, Texas A&M University, and the University of Washington.

Dr. Steeve Giguère, the Marguerite Thomas Hodgson Chair of Equine Studies and a board-certified large animal internal medicine specialist, led the team, which sequenced the genomes of antibiotic-resistant and antibiotic-susceptible R. equi isolates collected from foals in four states. They searched each isolate’s genome for genes with similar sequences to known genes that cause bacterial resistance to the macrolide class of antibiotics in other bacterial species. Through their search, they discovered a new gene, which was named erm(46) by the Nomenclature Center for MLS Genes at the University of Washington.

When the team cloned erm(46) into susceptible R. equi isolates (those that are normally inhibited by antibiotics), they found that erm(46) induced a high level of resistance to macrolide, lincosamide and streptogramin B antibiotics. Moreover, they found that the gene can be transferred from resistant to susceptible isolates of R. equi during bacterial mating. “This process likely contributes to the spread of resistance,” said Giguère.

Their finding is the first molecular characterization of resistance to these three classes of antibiotics in Rhodococcus equi. “Before, we knew we had resistant isolates, but we did not know how resistance occurred and we had no molecular markers to identify and track the resistant bacteria,” said Giguère.

Rhodococcus equi, a Gram-positive intracellular pathogen, is one of the most important causes of disease in foals between three weeks and five months of age, said Giguère. So far, Giguère and his team have identified antibiotic-resistant R. equi isolates carrying erm(46) in New York, Florida, Texas and Kentucky—where, on one farm producing 100 to 170 foals a year, as many of 40 percent of infected foals were found to carry resistant isolates.

The bacterium is present in soil year-round, but because it typically causes disease only in foals up to five or six months of age, illnesses typically manifest in spring and summer. “It is believed that most foals become infected through inhalation of R. equi within the first few weeks of life, and they start showing clinical signs of pneumonia between three weeks and five or six months of age,” said Giguère.

People may come into contact with Rhodococcus on farms, while gardening, or during other activities that disturb dirt; however, it typically only causes infection
in immunocompromised individuals. Not all R. equi causes disease in foals. A piece of DNA located outside the chromosome, called a plasmid, is responsible for making R. equi virulent in foals. Variations on this plasmid can be found in pigs and also cattle.

The spread of drug-resistant Rhodococcus may be a growing problem, said Giguère.

“It’s something that was unheard of 15 years ago, and now we’ve found it in multiple states. We need to conduct a well designed epidemiological study to really know the prevalence of resistant isolates across the country.”

The team’s study was recently published in the Journal of Antimicrobial Chemotherapy (tinyurl.com/q4kzg5g).

Coauthors on the study include: Londa J. Berghaus, Mary K. Hondalus and Jennifer M. Willingham-Lane from the University of Georgia College of Veterinary Medicine; Elisa Anastasi, Jose A. Vasquez-Boland and Iain MacArthur from the University of Edinburgh; Noah D. Cohen from Texas A&M University; and Marilyn C. Roberts from the University of Washington.

Their work was funded by the Morris Animal Foundation, the largest private funder of companion animal research.
Bioengineer joins UGA CVM

Karen J. L. Burg, a bioengineer whose cutting-edge work centers on absorbable polymers, biofabrication and tissue engineering, joined the College of Veterinary Medicine in January as its Harbor Lights Chair in Small Animal Studies. Burg is one of five professors to be hired under UGA President Jere W. Morehead’s Presidential Extraordinary Research Faculty Hiring Initiative, which launched in 2014 to help bring internationally recognized scholars to UGA.

“Dr. Burg brings an extraordinary record of accomplishment to the University of Georgia, and she will play a significant role in expanding this institution’s capacity to inquire and innovate to improve human health,” said Pamela Whitten, senior vice president for academic affairs and provost.

“Dr. Burg will collaborate with our faculty working in regenerative medicine who are focused on treating conditions in animals and humans that will benefit from cells and tissues grown in the laboratory,” said Sheila W. Allen, dean of the College of Veterinary Medicine.

Seven of Burg’s inventions have been patented, one of which is the basis of a biomedical company that focuses on developing tools to help doctors quickly diagnose and combat breast cancer. Her work in the laboratory includes building arrangements of cells, taken from patients, to assist in the identification of early-stage diseases. Her research team is also finding ways to use normal, healthy cells to build replacement parts for cancer or bone trauma patients who have had unhealthy or damaged tissue removed.

“Dr. Burg earned her bachelor’s degree in chemical engineering, with a minor in biochemical engineering, from North Carolina State University and master of science and doctor of philosophy degrees in bioengineering from Clemson University. She subsequently completed a tissue engineering postdoctoral fellowship at Carolinas Medical Center.

Burg joins UGA from Kansas State University, where she served as vice president for research and a professor of chemical engineering since 2014. Prior to joining Kansas State University, Burg served as the interim vice provost and dean of the Graduate School at Clemson University from 2011 to 2014, and interim vice provost for research and innovation from 2007 to 2011, during which time she established the South Carolina Institute for Biological Interfaces of Engineering. Burg joined the Clemson University faculty in 1999 as an assistant professor of bioengineering. In 2005, she was promoted to full professor and was named the university’s Hunter Endowed Chair & Professor of Bioengineering; in 2015 she was named Hunter Endowed Chair & Professor Emerita at Clemson University.

“The College of Veterinary Medicine research initiatives are focused on both animal and human health; it will be exciting to find ways to connect engineering tools with these efforts. I’m looking forward to working with clinicians and researchers to identify projects that advance clinical practice and medical science while helping to train students, residents and interns,” said Burg.
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Last winter through spring, states from California to Illinois saw a massive outbreak of highly pathogenic avian flu—one that avian health experts and the poultry industry don't want to repeat in other parts of the country as wild birds, which carry the viruses, migrate south during fall 2015 and winter 2016.

First identified in the Pacific Northwest in December 2014, the H5N2 and H5N8 strains of highly pathogenic avian influenza (HPAI) spread through 211 commercial and 21 backyard poultry flocks in 21 states until its last detection in mid-June 2015. This resulted in the culling of 7.5 million turkeys and 42.1 million egg-laying and pullet chickens, devastating businesses and costing federal taxpayers more than $950 million, according to the U.S. Department of Agriculture's Animal and Plant Health Inspection Service.

The H5N2 and H5N8 virus strains, spread through wild birds (particularly resident and migratory dabbling ducks), had a couple of features which made them uniquely devastating, according to Mark Jackwood, PhD, who is head of both the UGA Poultry Diagnostic and Research Center (PDRC) and the College of Veterinary Medicine's Department of Population Health, as well as an expert on avian viruses. First, they were reassortments of highly pathogenic Asian flu strains with low-pathogenic strains from North America. Second, both strains had a particularly long incubation period. While most HPAI strains have an incubation period of two to three days, these two strains incubated for twice as long before birds showed signs of illness.

Poultry Experts Prepared for Potential Avian Flu Outbreak

By Sandra McGill

Graduate students from the UGA Poultry and Diagnostic Research Center tend to young turkeys vaccinated against HPAI. In collaboration with the USDA Southeast Poultry Research Laboratory, researchers at the UGA PDRC are testing different vaccines that may be used as a last resort to vaccinate commercial poultry in the event of an outbreak of highly pathogenic avian influenza during winter and spring 2016. Photo by Whitney Mathisen.
“Birds were shedding virus and people were tracking it around before we even knew that the birds were sick,” said Jackwood. “And that’s very unusual for high-path viruses.”

The combination of novel virus reassortment and long incubation period was “a deadly combination for our commercial poultry,” said Jackwood.

Daniel Perez, PhD, a Georgia Research Alliance Distinguished Investigator and the Caswell Edison Chair in Poultry Medicine at the UGA PDRC, points to perhaps lax biosecurity as one of the reasons so many farms were devastated by the earlier outbreak.

“Always the key is biosecurity,” said Perez, referring to the need to keep farms free from disease. “When you lower your biosecurity, that’s when you can get hit.”

With the southern migration of wild birds anticipated this fall and winter, Jerry Saliki, DVM, PhD, DACVM, a virologist who heads the UGA Athens Veterinary Diagnostic Laboratory, said both state and federal agencies have emergency response plans in place in case HPAI is seen in Georgia. PDRC and other agencies have been sharing this information via word of mouth, Internet articles and local newspapers. HPAI will also be discussed at the International Poultry Scientific Forum in January 2016.

Saliki also said HPAI’s appearance in Georgia is not guaranteed.

“It’s more important to reassure the public that we are ready to deal with it if it gets here, not to tell them it is imminent and we’re going to have devastation and economic destruction,” said Saliki.

Jackwood, Perez and Saliki are among the many state and federal emergency responders who will put a stamping-out plan into action within a matter of hours, should HPAI make its way into Georgia. This plan involves the culling of infected commercial and backyard flocks and monitoring of a six-mile radius around the infected flock for additional infected birds.

Unfortunately, there is no treatment for infected birds. In a worst-case scenario, state and federal agencies have a vaccine protocol ready to go. Administering it, however, may lead to serious economic consequences as other countries may place an embargo on Georgia poultry. Because Georgia is the nation’s top chicken-producing state shipping to more than 130 countries, bird vaccination will be an action of last resort.
“I think we’re lucky that Georgia is maybe not a major stopover for migratory birds,” said Perez. Georgia lies within the Atlantic Flyway, the easternmost flyway in the United States. However, he cautions that infection can spread through other potential hosts, including other birds and even mammals. These hosts “may not be susceptible to disease from the virus, but they may be susceptible to infection. They can become silent carriers of the virus, and of course spread the virus. And certainly that brings risk of infection in poultry,” said Perez.

Signs of infection in a bird include respiratory and gastrointestinal symptoms, although birds may die suddenly without displaying clinical signs. It is important to note that respiratory and gastrointestinal symptoms are common in many types of avian illnesses, and the birds may not necessarily be infected with HPAI. That’s why testing is so vital.

“The best thing you can do is test, as soon as you find birds showing clinical signs, to rule it out,” said Saliki. “Not every bird that shows respiratory disease has influenza. And that’s why it’s important to test and rule it in or out.”

Jackwood also cautions that HPAI in commercial flocks must be reported to state and federal authorities and to the OIE, the World Organization for Animal Health.

Commercial operations can do a lot to prevent the spread of diseases, including HPAI.

“There are many simple steps related to biosecurity, in terms of this infection, that will go great lengths in preventing transfer of this disease from one place to another,” said Perez. “Don’t wear the same boots from chicken house to chicken house or chicken farm to chicken farm. Disinfect the trucks; disinfect your vehicles. Change clothes, if possible, when going from farm to farm or from chicken house to chicken house.”

Saliki also recommends monitoring who accesses the farm and poultry houses, installing footbaths and vehicle wheel baths, and controlling movement on the farm.

Owners of backyard flocks and free-range birds need to be even more cautious. These birds are the most at risk because they are the most likely to come into contact with wild birds, HPAI’s reservoir. Perez recommends restricting their mingling with wild fowl as much as possible. Likewise, owners of aviaries with exotic birds would do well to keep their birds from mingling with wild birds.

“The problem is not the backyard flock,” said Perez. “The problem is how much in contact with wildlife they are. If the birds are contained in an enclosed space, and they don’t come into contact with wildlife, chances are that that backyard flock will be free of flu.”

The good news is that these strains of HPAI are not transmissible to humans. The U.S. Centers for Disease Control and Prevention is monitoring the disease closely should that change. The strains are also highly susceptible to killing by heat, so consumption of fully cooked meat and eggs is safe because cooking is enough to kill the virus.

Saliki notes that, if HPAI does strike, consumers may see a rise in poultry and egg prices this winter. Prices tripled in some markets during the HPAI outbreak in 2015.
If you come across a potentially infected bird, contact one of these agencies:

The UGA Poultry Diagnostic and Research Center
706.542.1904

The Georgia Poultry Lab Network
Avian Influenza Hotline
770.766.6850

The Georgia Department of Agriculture
Avian Influenza Hotline
855.491.1432

For More Info

The UGA Veterinary Diagnostic Laboratories
HPAI Preparedness
t.uga.edu/1XX

The Georgia Department of Agriculture
Avian Influenza Response Center
agr.georgia.gov/avian-influenza.aspx

**Source: USDA Animal and Plant Health Inspection Service
**Source: USDA, USGS, National Fishway Council, U.S. Fish and Wildlife Service, National Wildlife Refuge System
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Chikungunya virus—a disease with such an outlandish name seems like it should be confined to a fittingly exotic locale. However, within 50 years of its discovery, the mosquito-borne virus, which causes a high fever and joint pain, has spread from the forests of its native Central Africa to the Indian subcontinent, the coasts of the Mediterranean Sea and in 2013, the Americas. With the first case of Chikungunya acquired within the United States occurring in Florida in 2014, it is clear the virus is finding ways to establish itself in parts of the world where it has never before been seen—the lingering question is, “How?”

UGA College of Veterinary Medicine researchers Melinda Brindley, an assistant professor jointly appointed to the departments of Infectious Diseases and Population Health, and Courtney Murdock, an assistant professor jointly appointed to the Department of Infectious Diseases and the Odum School of Ecology, have recently teamed up to explore that question. Brindley, a virologist, and Murdock, an entomologist, are merging their research interests to explore how differences in local climate affect Chikungunya virus transmission at the levels of both the virus and its mosquito vector. Ultimately, their work will shed light on how Chikungunya is expanding into new regions and will help predict where the virus can spread next.

The collaboration between these two labs started almost by chance. “Courtney and I were hired at the same time and we were co-housed in the same office, so we got to know each other very well,” said Brindley. Murdock had extensive experience with mosquitoes in the context of malaria, a parasitic infection carried by mosquitoes, but wanted to expand her field of research to include viruses. “I was the closest virologist—literally, I was sitting next to her—so we started talking,” said Brindley.

Murdock, a disease ecologist by training, performed her postdoctoral work studying how environmental variation influences the outcome of parasite-mosquito interaction in malaria. Murdock’s work at UGA has followed a similar line of research, focusing on how variations in temperature across a landscape affect mosquito traits such as lifespan and reproductive rate to influence their ability to spread disease. “When you use climate change models or any model that builds in climatic influences to transmission dynamics, they usually work with broader weather patterns that are characterized by general circulation models or coarse weather pattern trends,” said Murdock. “The question is—are these the climatic conditions that the mosquitoes actually experience?” To answer that question, Murdock’s lab conducts field-based experiments at rural, suburban and urban sites around Athens to see how hot spots created by concrete and other reflective surfaces affect local mosquito populations.

Brindley may be new to the field of mosquito research, but she is a veteran virologist, having performed her
doctoral research and two postdoctoral projects investigating how a wide range of viruses, including Ebola, measles and equine infectious anemia virus enter a host cell. The ongoing work in her lab at UGA seeks to understand cell entry mechanisms of arenaviruses, a family of viruses that can cause meningitis or hemorrhagic fevers in humans. Brindley is particularly interested in proteins involved in cell entry that are located on a virus’s envelope, a layer of viral proteins and host lipids surrounding many viruses.

Together, Murdock and Brindley are hoping to understand how temperature changes affect the mosquito’s ability to transmit Chikungunya virus and influence the virus’s ability to infect a host. “Previous publications have found that the genotype of the mosquito, the genotype of the Chikungunya strain and the environment all have effects on how well the mosquito can transmit virus,” said Brindley. How well the mosquito is able to transmit Chikungunya virus at different temperatures could shed light on the likelihood of the disease taking hold in an area that has been recently colonized by the mosquitoes.

*Aedes aegypti*, commonly called the “Yellow Fever mosquito,” and *Aedes albopictus*, the Asian tiger mosquito, are the two species of mosquito capable of transmitting Chikungunya virus to humans. *A. aegypti* and *A. albopictus* are native to Africa and Southeast Asia, respectively, but the advent of a global economy and changing climates provided the mosquitoes with an opportunity to travel around the world, bringing with them the myriad diseases they carry, including Chikungunya. Today, both species can be found all over the southeastern United States, and *A. albopictus* lives as far north as Iowa and New Jersey.

Scientists have attempted to develop mathematical models to predict this spread of mosquito-borne diseases, but the accuracy of such complex models is limited by a dearth of empirical data on components of the system that play key roles in disease transmission. “If we don’t understand how the pathogen and vector competence are going to respond to environmental changes, it’s going to limit our predictive power,” said Murdock. Murdock’s and Brindley’s disparate but complementary scientific backgrounds make for an ideal partnership to fill this critical gap in knowledge, particularly those related to changing temperatures.

Murdock is interested in answering lingering questions about how different environmental temperatures will affect the mosquito’s vector competence, or ability to serve as a vector for Chikungunya. “There’s very little known about how Chikungunya responds to environmental temperature within the insect vector,” explained Murdock. “This is really important because a lot of people are trying to map how Chikungunya is going to spread with climate change or into new areas with *A. aegypti* or *A. albopictus* re-expansions.”

*A. aegypti* is Chikungunya virus’s native vector, but as the disease spread to Asia and the Indian subcontinent, it developed mutations that enabled it to be transmitted by *A. albopictus*, albeit less effectively. Over time, some strains of the virus developed mutations in their envelope proteins that made *A. albopictus* a more efficient vector for the disease. However,
the benefit these mutations confer on the virus may change with different environmental conditions. “We’re interested in exploring not only temperature effects on the pathogen and the mosquito immune responses within *A. aegypti* and *A. albopictus,*” said Murdock, “but we’re also interested in how temperature might affect whatever function that mutation is conferring.”

Brindley plans to investigate these mutations to gain a better understanding of how they make *A. albopictus* a more permissive host for Chikungunya, as well as how they might affect further spread of the disease into the United States and other previously Chikungunya-free parts of the world. “I am interested in how the switch happened between Chikungunya *A. aegypti* and *A. albopictus* infection,” said Brindley. “I’ve always worked on virus entry, so that the fact that there are two mutations in the envelope very much piqued my interest.” Additionally, she hopes to determine at a molecular level whether different ambient temperatures induce changes in the viral envelope or replication machinery, and whether those changes would affect the transmission of the virus by its two mosquito hosts. The results of these experiments would have greater implications for the ability of these mosquitoes to transmit Chikungunya virus under different climatic conditions.

Ultimately, understanding the effects of temperature on Chikungunya transmission by mosquitoes will not be enough to paint a complete picture of what the future holds for the disease. However, Brindley’s and Murdock’s collaboration provides a unique opportunity to fill important gaps in knowledge, lending more predictive power to current models and paving the way for future research and collaboration. “In the end, you’re going to have to work with all of the other life history traits that are relevant for transmission. The Chikungunya project is going to be a springboard to asking those types of questions,” said Murdock. “This is just the first step.”
Approximate distribution of *Aedes aegypti* in the Untied States*

*This map was developed using currently available information. *Aedes aegypti* mosquito populations (a known vector of chikungunya) may be detected in areas not shaded on this map, and may not be consistently found in all shaded areas. The shaded areas are NOT locations of chikungunya transmission.

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Approximate distribution of *Aedes albopictus* in the Untied States*

*This map was developed using currently available information. *Aedes albopictus* mosquito populations (a known vector of chikungunya) may be detected in areas not shaded on this map, and may not be consistently found in all shaded areas. The shaded areas are NOT locations of chikungunya transmission.

*Maps from U.S. Centers for Disease Control and Prevention*
Researchers in the Department of Infectious Diseases have identified a signaling protein critical for host defense against influenza infection. The findings, recently published in PLoS Pathogens, shed light on how a single component of the body’s defense system promotes effective immunity against viral infections—particularly respiratory viruses—that affect mucosal sites.

The protein tumor progression locus 2, or Tpl2, is an important regulator of the immune response, controlling signaling downstream of cell surface and intracellular receptors that recognize the presence of pathogens. “Tpl2 regulates inflammation and inflammation is a necessary part of a host’s defense against infection,” said Wendy Watford, corresponding author on the study and an associate professor of infectious diseases in the CVM. Watford and Teneema Kuriakose, her former graduate student and lead author on the study, collaborated with Ralph Tripp, a professor and GRA Eminent Scholar of infectious diseases.

The study demonstrates a key role for Tpl2 in induction of antiviral genes, including Type III interferons, a type of immune signaling protein important in mediating antiviral responses. Though interferon production is known to play a large role in host defense against viral infections, prior to this study little was known about how Tpl2 functions in that environment. These results go a long way toward developing an understanding of how the body fights viruses that infect mucosal sites, such as influenza and rotavirus, and could help guide the design of more effective countermeasures against viral infections. “Ultimately the goal is to generate better vaccines so that we can drive immunologic memory and protect people against subsequent infections,” Watford said.

This year, the Georgia Farm Bureau is offering two scholarships of $2,500 each to UGA CVM students who are currently enrolled and have a focus on large animal or food animal practice. The scholarships will be awarded this spring and distributed this summer. The UGA College of Veterinary Medicine Scholarship from the GFB is part of a recent expansion of scholarship offerings made possible through the GFB Foundation. We will let you know in our next issue which of our students receive the award, for which the deadline was in February.
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UGA INVOLVED IN INTERNATIONAL VETERINARY EPILEPSY TASK FORCE

Dr. Simon Platt, a professor of neurology and neurosurgery in the CVM’s Department of Small Animal Medicine and Surgery, is one of four experts representing institutions in the United States on the International Veterinary Epilepsy Task Force. The group of veterinary neurology clinicians and neuroscientists have come together to formally agree on key aspects of diagnosing, treating and researching canine and feline epilepsy—a disease commonly seen in veterinary practice.

The independent organization, founded in 2014, has produced seven consensus statements which were recently published in BMC Veterinary Research (Vol. 11, 2015; www.biomedcentral.com/1746-6148/11/148) and outline a number of recommendations and classifications on epilepsy. The consensus statements are designed to help streamline classifications, definitions, therapeutic outcome measures, and neuroimaging and neuropathology standards that will yield better comparable data for understanding, researching and treating the disease.

“For many years, epilepsy in cats and dogs has been a significant issue for the veterinarian but unlike for human epilepsy, we have not had a consensus developed based on multinational, institutional and individual knowledge and experience,” said Dr. Platt. “This Task Force effort represents a crucial step in the right direction toward more effective diagnosis and treatment of pets with seizures and may help to draw important parallels with the human disease, benefitting both of our worlds.”

UGA receives NSF grant to develop graduate training program in disease ecology

UGA received a $2.99 million grant from the National Science Foundation to develop an interdisciplinary graduate training program in disease ecology. The program will be led by Vanessa Ezenwa, an associate professor of disease ecology who is jointly appointed to the CVM’s Department of Infectious Diseases and the Odum School of Ecology. The five-year grant is part of the new NSF Research Traineeship program, established to support innovative models for interdisciplinary graduate education with a focus on critical research needs in science, engineering and math. The grant will support 30 doctoral students, with the first cohort entering the program in fall 2016.
$2.1 MILLION NSF GRANT FUNDS STUDY ON EFFECT OF URBANIZATION ON HEALTH OF IBISES AND THEIR ECOSYSTEMS IN SOUTH FLORIDA

A $2.1 MILLION GRANT from the National Science Foundation’s Ecology and Evolution of Infectious Diseases Program will be used to understand how being fed by humans may be changing the health, ecology and behavior of white ibises in South Florida, where urban development has encroached upon their wetland habitats. The findings of the study could apply to other wildlife species that have grown cozy with humans at public parks and other human-altered landscapes. The findings could also have serious implications for human health.

“...In a previous study, and using molecular typing methods, we found that the strains of Salmonella that white ibises are infected with genetically matched some of same that some people get sick from, particularly in Florida,” said Sonia Hernandez, an associate professor of wildlife health who is jointly appointed to the College of Veterinary Medicine and the Warnell School of Forestry and Natural Resources. “Because white ibises move from urban to natural environments readily, they might be responsible for moving these strains around over large distances.”

Other researchers on the project are Jeff Hepinstall-Cymerman, an associate professor in the Warnell School; Sonia Altizer, a professor, and Richard Hall, an assistant research scientist, both in the Odum School of Ecology; and Kristen Navara, an associate professor in the College of Agricultural and Environmental Sciences.

A NEW OAK TREE!

ABOVE: A new Willow Oak was planted on the front lawn of the College just days before Christmas. It replaces the former Willow Oak that grew in that spot for many years.

BELOW: The old oak had to be removed last July when a large limb fell following a storm and UGA arborists determined the ancient oak could not be saved due to disease. The new oak was made possible by gifts to the College from alumni, faculty, staff and friends. Photos by Whitney Mathisen.
Researchers at the University of Georgia College of Veterinary Medicine will lead a collaborative four-year study aimed at understanding the neurological mechanisms responsible for changes in taste following Roux-en-Y gastric bypass surgery and also diet-induced obesity. Their work will be funded by a $2.48 million grant from the National Institutes of Health.

“Understanding how the signals from our gut to our brain are altered by both diet-induced obesity and RYGB will lead us to new treatments for effective weight loss,” explained Dr. Krzysztof Czaja, an associate professor of neuroanatomy who is the lead investigator on the project. “In addition, we will have a greater understanding as to why RYBG is an effective surgical treatment for obesity.”

Based on their previous work, Czaja and his collaborators believe that damage to the vagus nerve unleashes a cascade of metabolic events that result in altered signals sent by the gut to the brain, including how our brain encodes tastes and satiety. Their study, titled “Vagal Influence on Brainstem Plasticity and Neural Coding of Taste,” will test their theory and also link the changes that occur during synaptic remodeling. This research is supported by the National Institute on Deafness and Other Communication Disorders of the National Institutes of Health under award number 1R01DC01390401. The team includes researchers from Binghamton University in Binghamton, New York, and Pennsylvania State University in State College, Pennsylvania.
Did you know

that art experts occasionally reach out to veterinary institutions for help with researching and authenticating significant works of art? The reason is due to the settings available on our x-ray equipment. The Diagnostic Imaging service at our Veterinary Teaching Hospital recently helped the Georgia Museum of Art x-ray this painting, “A Portrait of a Youth,” which will make its public debut in September 2016 at the museum.

The painting, dated 1827, is signed by Alexey Venetsianov (1780-1847), a Russian artist and one of the most important painters of the early 19th century. Until recently, no one knew this painting existed except for a New York gallery that acquired it in the 1960s and a private, anonymous collector who purchased it from the gallery. “The likeliest explanation is that this is an intimate small-scale family portrait that remained in the family of the portrait sitter until probably about 50 years ago,” explained Asen Kirin, a professor of art history at the Lamar Dodd School of Art and curator of the exhibit. Kirin is authenticating the portrait in preparation for its upcoming debut. “It is rare to encounter an unknown work of a major artist. And this is such a superbly painted portrait,” he added.

The x-ray revealed that the original canvas had been removed and expertly restored, probably 40 to 50 years ago. There were no prominent underdrawings or underpaintings found, “but we were able to establish that the painting survived without any major losses to the painted area, and there were only three very small areas that were carefully filled in by a conservator,” Kirin said.

Even without the help from our Diagnostic Imaging service, the museum and CVM boast strong ties, as three CVM faculty members are on the museum’s membership board, the Friends of the Georgia Museum of Art: Drs. K. Paige Carmichael, Ira G. Roth and Ben Brainard.

For more information about the exhibit, visit tinyurl.com/nlce4ed.
A UGA-led research team discovered a new species of the parasite *Eimeria* in fecal samples from a Kentucky population of mourning doves, which is one of the most abundant birds in North America and one of the most harvested game birds in the United States.

Michael J. Yabsley, MS, PhD, an associate professor of parasitology and wildlife diseases appointed to the Southeastern Cooperative Wildlife Disease Study, led the team, which sampled intestinal tracts from 100 legally harvested mourning doves collected on a private farm southwest of Georgetown, Kentucky. The team’s discovery of *Eimeria lyoni* marks the third description of an *Eimeria* species from the genus Zenaida and the first report of *Eimeria* in the mourning dove. The team’s findings were published in the July issue of Comparative Parasitology (Vol. 82, issue 2, 2015).

Yabsley is jointly appointed to the College of Veterinary Medicine and the Warnell School of Forestry and Natural Resources. Coauthors on the report include Yabsley’s graduate student, Karen Bailey, who is also the founder and president of the Kentucky Wildlife Center; and, baccalaureate student Henry C. Adams of UGA’s Odum School of Ecology.
UGA VTH OFFERS ADVANCED RADIATION THERAPY AND SMALL ANIMAL REHABILITATION SERVICE

By Cindy Rice

**The University of Georgia** Veterinary Teaching Hospital is up and running at its new, state-of-the-art facility, located at 2200 College Station Road. Inside the Hospital, you’ll find a thoughtfully designed environment centered on the patient. It houses the latest technology, advanced diagnostics and dedicated treatment spaces for large and small animals.

The Hospital is part of the new UGA Veterinary Medical Center, which also includes an education building for teaching third-year veterinary students. The Center encompasses just over 300,000 gross square feet and was built to enable the College of Veterinary Medicine to better meet its students’ educational needs and its current and future patient care demands.

**Advanced radiation therapy now available**

When the UGA VTH moved into its new facility, it upgraded its linear accelerator to one of the most advanced models available, the Trilogy® system, putting UGA on the leading edge of veterinary radiation therapy nationwide.

One of the main advantages of this machine is its ability to deliver radiation beams to a tumor with significantly increased accuracy, sparing more of the surrounding normal tissue. This results in decreased side effects in a significant proportion of our patients.

The Trilogy® also allows us to offer stereotactic radiation therapy (SRT) for the treatment of certain types of tumors, such as nasal, brain and spinal tumors. SRT is different from traditional radiation therapy in that a
higher dose of radiation can be used. As a result, the number of radiation treatments needed decreases (for example, from 20 treatments to one to five treatments). This is especially advantageous for veterinary patients, since they require general anesthesia for each radiation therapy session.

Our radiation oncology service, lead by Dr. Koichi Nagata, recently completed its first case using SRT, placing UGA among an elite group of veterinary hospitals currently offering this treatment option.

The behavioral medicine service is now accepting new patients. This service provides mental health care for all animals through comprehensive evaluations of behavioral problems and mental disorders, behavior therapy, house calls and more. The behavioral medicine service operates out of the Community Practice Clinic, located on the main UGA CVM campus off of East Campus Road.

Dr. Leticia M. Dantas rejoined the service in January, allowing the Hospital to once again offer this specialty. Dantas is a diplomate of the American College of Veterinary Behaviorists and also has a PhD in behavioral medicine, animal mental health and welfare.

To make a referral or request a consultation, please call 706.542.3221.

Dermatology adds two clinicians

The UGA VTH recently hired two board-certified dermatologists.

Dr. Frane Banovic joined the Hospital faculty in July. He comes to UGA from North Carolina State University, where he completed his residency and fellowship in investigative dermatology.

Dr. Fiona L. Bateman joined the Hospital in January. She has more than seven years of experience in veterinary dermatology, including serving as the founder and director of Animal Dermatology Solutions in Australia.

Using nuclear scintigraphy in equine lameness cases

Did you know that the Hospital offers nuclear scintigraphy (bone scan) to help diagnose obscure or multiple limb equine lameness cases? This imaging modality allows us to detect the location of problems in the lower and upper limbs, back, pelvis and neck through the use of a radioactive isotope. Areas of the body undergoing remodeling absorb the isotope at a higher rate which creates “hot spots” that can be detected using a gamma camera.

Once the problem area or areas have been identified, additional diagnostic modalities such as ultrasound, radiography, CT and MRI can be used to further characterize the lesion(s). Our equine imaging specialists and clinicians will then work with you and your client to offer targeted treatment options for the specific injury.
Clinical trial opportunities

The Hospital is currently offering several clinical trials. Below is a brief summary of some of our newer studies. To learn more, please visit: vet.uga.edu/research/clinical/current

**CATS WITH SARCOMAS**
Study to determine the effectiveness of an adjunct therapy in cats with fibrosarcoma

**DOGS WITH BRAIN CANCER**
Study to determine the effectiveness of a novel chemotherapy delivery system to canine brain tumors

**DOGS WITH PROTEINURIA DUE TO CHRONIC KIDNEY DISEASE**
Study to determine the effectiveness of a new treatment to reduce urine protein loss in dogs

**DOGS WITH SUSPECTED HEART DISEASE**
Study to investigate platelet activity in dogs with heart disease

**DOGS WITH ARTHRITIS OF THE ELBOW OR KNEE**
Study to evaluate the efficacy of tramadol on pain and dysfunction

**HORSES WITH BLADDER STONES**
Study investigating a new technique for the removal of bladder stones in standing, sedated horses

Now offering small animal rehab service

The small animal rehabilitation service, which launched when the Hospital moved into its new facility, is dedicated to using physical rehabilitation to improve the quality of life of your small animal patients. Through the use of underwater treadmills and other treatment options, this service helps its patients achieve improved mobility, strength, fitness and cardiovascular health. Learn more at: t.uga.edu/21W

Rehab technician Jodi Seidel uses an exercise ball to help improve Sunshine Wilder’s core strength and stability as she recovers from a recent TPLO (knee) surgery. Seidel oversees the Hospital’s new small animal rehabilitation service, which is available to inpatients and outpatients. *Photo by Christopher B. Herron.*
SUPPORTING GEORGIA’S AGRICULTURE INDUSTRY ONE HERD AT A TIME

By Cindy Rice

WITH GEORGIA BEING HOME TO ATLANTA, several fortune 500 companies and an expanding movie business, some may not realize that agriculture is the state’s No. 1 industry.

This includes the production of nearly 1.7 billion pounds of milk a year and the management of 1 million beef cattle. In fact, the dairy and beef industries combined have the second highest animal agricultural commodity value in Georgia with total farm gate values exceeding $1.5 billion.*

Helping to safeguard these important commodities is the goal of the production medicine team at the UGA Veterinary Teaching Hospital.

This service travels to dairy and beef operations throughout the state and works closely with producers and their veterinarians to improve herd health. They also offer consulting services throughout the Southeast.
“Herd health is an essential component to the success of any dairy or beef cattle operation,” said one of the service’s veterinarians, Dr. Brent C. Credille, who specializes in large animal internal medicine and beef production medicine. “This ranges from any obvious illnesses in the herd to how well they are performing as a group. You can’t just look at one cow. You have to know how to evaluate the whole herd and make recommendations for improvement based on that.”

These recommendations not only help the owner’s operation be more profitable in the long run, but they also help ensure the quality and safety of the final product—our food.

“We tend to take a fairly holistic approach,” Credille said. “We look at management practices, nutrition, the environment and genetics when trying to improve the quality of a herd rather than just relying on medical options.”

Their services include bull breeding soundness exams, evaluating herd management practices, reproductive evaluations, herd outbreak investigations, milk quality testing and herd improvement strategies, to name a few.

For more information, to make a referral, or to set up an appointment, call 706.542.3223.

*Statistics from the UGA College of Agricultural and Environmental Sciences’s 2014 Georgia Farm Gate Value Report.

The new Large Animal Hospital includes a separate food animal treatment area to meet the specific needs of our cattle clientele. Here, Dr. Brent Credille, an assistant professor of beef production medicine, and Dr. Emily Snyder, who is getting her master’s degree in food animal medicine, examine a calf with a broken leg in one of the facility’s many stalls. Photo by Christopher B. Herron.
A NEW VIEW

**Dr. Jonathan Chambers**, a professor emeritus of surgery, recently scrubbed in on a hip replacement at the new UGA Veterinary Teaching Hospital, which opened last March. The event marked the first time in seven years that Dr. Chambers had participated in a total hip replacement surgery (he assisted by passing the instruments)—but, that’s not what made this event unique. What did? Chambers is the only veterinarian to have participated in surgeries at three hospitals during the UGA CVM’s history! “The new facility is just gorgeous,” said Chambers, who was part of the original planning committee, during the 1990s, for the new hospital.

In 1979, Chambers performed the first total hip replacement in what was then the CVM’s new hospital, located on Carlton Street. Within 10 years of that facility’s 1979 opening, walls were being knocked down to increase the number and size of the operating rooms to accommodate the latest technologies. “Two of the old ORs were just so small and basic,” he noted. “There wasn’t enough room for all the new technologies that came along over the years, especially as the sophistication and complexity of the surgeries we were performing increased.”

Chambers is delighted with the outcome of the new VMC. “They built a facility that will last. These ORs are more than adequate in size and will allow for expansion as technology comes along that we haven’t even dreamed of yet!”

Jonathan Chambers, professor emeritus of surgery. *Photo by Christopher B. Herron.*
Inside the new, state-of-the-art University of Georgia Veterinary Teaching Hospital, you’ll find a thoughtfully designed environment centered on the patient. It houses the latest technology, advanced diagnostics and dedicated treatment spaces for large and small animals. And at the heart of it is the staff – from doctors to nurses to students in training – providing our hallmark compassionate care.
My Indonesian Odyssey

Freeman Foundation grants sent 6 students to Southeast Asia.

My experience in Indonesia began in late May at the Yogyakarta airport, when I was greeted by the smiling face of Adretta Soedarmanto, a third-year veterinary student at the Gadjah Mada University, or UGM. Soedarmanto graciously volunteered to show me around UGM and help me settle in that day. I toured UGM’s facilities, receiving curious stares as I walked through hallways and courtyards. There was no chance of blending in as the only blonde in the vicinity. Although I stood out like an alien who had taken a wrong turn to Earth, I was welcomed by all who crossed our path. This day was filled with many “firsts”: riding a motorbike; eating a meal with my bare hands in a restaurant; leaving my shoes behind before entering a building, room, or someone’s home; hearing the Islamic Call to Prayer, and, being...
surrounded by a language of which I knew very little. I enjoyed soaking up the new sights, the busy noises of the streets and the hospitality of the people I met.

Just nine months earlier, I had arrived for orientation as a first-year student at UGA’s College of Veterinary Medicine, excited to be one step closer to becoming a veterinarian. Having developed a passion for traveling during my undergraduate years, I was determined to find a way to discover the world during my veterinary education. In orientation, I learned about the Certificate in International Veterinary Medicine program for UGA CVM students. To receive this certificate, students must complete certain courses, conduct a research-based project, be proficient in a foreign language and spend at least three weeks interning in another country.

Several months later, a fellow student, John Rossow (DVM 2017), emailed CVM students to encourage applications for the Asia-Georgia Internship Connection Grant through the Freeman Foundation. These grants are awarded biannually to students seeking to complete an internship of at least four weeks in a country in Southeast Asia. Ecstatic, I immediately began working on my application.

I had no connections of my own in Southeast Asia, but I was determined to find an opportunity. Dr. Corrie Brown, a professor of pathology who is a faculty advisor on the CIVM program, proved to be a great connection to many international veterinary colleges and she facilitated introductions to her colleagues across the world. Through

Dr. Brown, I met and soon befriended Putri Pandarangga, a veterinarian from Indonesia who was getting her master’s degree in veterinary pathology at UGA. It was Pandarangga who connected me to Dr. Indar Julianto, director of international affairs at the UGM—the oldest and largest institution of higher education in Indonesia. Dr. Indar agreed to host me for UGM’s summer internship program and we began to plan my summer as the first American student to visit their veterinary school.

Thanks, in part, to Rossow, six CVM students spent summer 2015 in Southeast Asia. (For many of us, this was our first time writing a grant proposal, but our efforts paid off!) Rossow traveled to Laos and Thailand to develop a photo catalog of common lesions found in swine, cattle and Asiatic buffalo at slaughter. Julie Thompson (DVM 2018) conducted research with Salmonella and Campylobacter in wild birds with the Universiti Putra Malaysia in Malaysia. Scott Epperson (DVM 2018) worked to improve the protocols on avian influenza surveillance in humans in Bangladesh. Stephanie Howell (DVM 2018) and Amanda Morvai (DVM 2018) spent time volunteering and working with elephant veterinarians in northern Thailand. While we all traveled to the same region of the world, we had varying experiences with regards to both culture and veterinary exposure. (See sidebar starting on page 38 for photos from the other five internships.)
My internship time was divided between UGM’s small animal clinic and hospital, and the field. I usually worked with Dr. Slamet, a man who quickly demonstrated his indefinite amount of knowledge on any species we encountered, from cats to cobras to cattle. While at the clinic, I noticed the biggest difference between our facilities and theirs was the laid-back atmosphere at UGM. While there were always cases, surgeries or projects to work on, I never once saw anyone stressed or in a rush. The students always found time to get lunch, pray and—sometimes—nap! The rooms of the hospital surround an outdoor courtyard and the windows remain open, in hopes that a breeze will blow through the hot, humid rooms. I had the freedom to help in all areas of the clinic, assisting with whatever procedure I stumbled upon.

In the field, I was inspired by the students who worked to make a difference in the local communities. For instance, as part of a senior research project, the students educated local farmers on the importance of nutrition for livestock. Most families on the island of Java own at least one cow that provides milk, meat and financial support for the family. Disposable income is not common in these areas and any increase in size or production can make a significant difference for these families. Cattle farmers are not always aware of the effects that proper care can have on their animals and this project encouraged them to increase efforts to provide nutritional supplements. The data collected for the project aimed to find a correlation between supplementation of specific minerals and the cows’ health. I appreciated seeing the students and veterinarians not only treat the cattle, but also spend time getting to know the farmers, understanding their practices and encouraging them to routinely monitor the health of their animals.

Regardless of whether they were in the field or the clinic, the ingenuity of the veterinarians and students regularly amazed me. The most high-tech materials and machinery were not available, but the doctors always got the job done with the simple tools to which they had access. For instance, I vividly remember the day I rode to the school with Dr. Slamet to help capture three macaques that had escaped their enclosure. We arrived to find students surrounded by colorful yarn, glue, tape, PCV pipe and syringes. Come to find out, they were making their own tranquilizer guns—from items you could find in an arts and crafts store!
Although I was doubtful, the students successfully used their homemade blowguns to tranquilize and recapture the escaped macaques.

Learning how to examine a venomous snake and give injections to a crocodile were definitely challenging tasks, but my biggest challenge was the language barrier. Indonesian students are required to take English classes in grade school, but the level of comprehension and fluency varies greatly. There are more than 700 indigenous languages spoken in Indonesia, but Bahasa Indonesia is the official language has been used as a common language for centuries. My attempt at learning common Indonesian words and phrases was much appreciated by the students. Sometimes, I could jokingly trick students into believing I could speak their language, but this was nowhere near the truth and I continuously inquired into the topics of conversations. I tried to get to know each student I met, however, my best friends became those who had the most experience with English and could understand my sarcasm and humor.

Getting to know the Indonesian people, learning about their culture and appreciating their way of life had a huge impact on my personal growth. I made every effort to understand the Indonesian and Islamic culture by living as they lived. Indonesia is home to the largest Muslim population in the world and each morning starts off with the Call to Prayer being recited clearly over the city from the surrounding mosques. This call is heard four more times throughout the day, and the people make time in their schedules for these prayers. The sound of the call surprised me during my first days in the country, but soon became a soothing reminder of the need to step back and appreciate life in this beautiful country. Islam is entrenched in their culture, and the people are connected through their beliefs and united through their traditions. The Indonesians are among the most generous and caring people I’ve been fortunate to meet through my travels.

Part of my stay coincided with Ramadan, a 30-day period devoted to fasting, introspection and prayer. When I first arrived, Dr. Indar apologized that I would spend my last week during this “time of fasting.” I wasn’t sure what this meant for me and was a little skeptical. But, the more I learned, the more excited I became to experience what life was like during Ramadan, when Muslims do not consume food or drink during daylight hours for a month. The community gathers together for meals at sunset and the atmosphere is filled with a sense of unity and spirituality.

Despite the challenges, my time in Indonesia was truly enriching. I not only gained valuable knowledge and skills, but also formed new friendships and gained a deeper appreciation for the Indonesian culture and people. Indonesia is a beautiful country with a rich history and diverse traditions, and I am grateful for the opportunity to have been a part of it.
water from sunrise to sunset. I, too, fasted (for a few days). These days of self-control through my thirst and hunger gave me an enhanced perspective on the strength and the devotion of the Muslim people. My relationships with those around me also grew as we broke the daily fast together with beverage and food at each sunset.

My time in Indonesia was spectacular! Waking up each morning in a new country with a new day filled with unknown surprises strengthened my drive for never-ending adventure and learning. The kindness and acceptance of the students and professors made each day better than the last. While there, I learned I had received the Health Professions Scholarship through the U.S. Army Veterinary Corps. Knowing my career as a U.S. Army officer will bring opportunities to work around the world, I welcome a future of connecting with cultures far and wide.

One of my favorite afternoons was spent tubing through the caves of Goa Pindul (goa means cave in Indonesian). Our guide led us through the darkness, where we saw amazing rock structures and bats swooping above our heads with his flashlight. After exiting the cave, we continued tubing to enjoy the waterfalls that followed!

Could you imagine doing an exam on an animal that can kill you with one bite? This Bornean keeled green pit viper was handled with hooks and tongs until Dr. Slamet could quickly grab its head to examine inside its mouth. Dr. Slamet is an expert on poisonous snakes, and he knew to keep us from trying out this swift and dangerous maneuver.

This is a typical cattle market in rural Yogyakarta. Almost every family outside of the city owns at least one cow or bull, which they keep in their backyards. They congregate at markets such as this to find and barter for their chosen animals.
Each weekend was spent visiting the numerous beaches along the southern coast of the island. When you’re with other veterinary students, there’s sure to be animals involved! At this particular beach, my friends took me on a tour of this sea turtle rehabilitation center, where I was able to hold a leatherback turtle and the green turtle in this photo.
MORE ASIAN ADVENTURES

Five other students also received the Asia-Georgia Internship Connection Grant through the Freeman Foundation to travel to Southeast Asia for internships during summer 2015. What follows is a brief look at their adventures.

JOHN ROSSOW (DVM 2017), who is enrolled in the CVM’s DVM/MPH dual degree program, wanted to travel to a country in which he had no aptitude for the language. He traveled to Vientiane, Lao People’s Democratic Republic, and also to Bangkok, Thailand, where he worked with the Mahidol Oxford Tropical Medicine Research Unit and the U.S. Armed Forces Research Institute of Medical Sciences to develop a photo catalog of common lesions found in swine, cattle and Asiatic buffalo at slaughter. “From negotiating per diems with the director of the Lao PDR National Animal Health Laboratory to working overnight shifts in a Lao slaughterhouse, I was able to experience the eccentricities and hardships that go hand-in-hand with international research, while growing into a more worldly and flexible person. I will be able to take the invaluable lessons that I learned while working in Southeast Asia and use them in my future veterinary career.” Photos and captions provided by John Rossow.

(1) I am pictured left, outside the animal holding area of the Done Dou Modern Slaughterhouse in Vientiane, Lao PDR. In the middle is research assistant Keo Chomdara; on the right is the veterinarian in charge of the slaughterhouse, Dr. Choummaly. Dr. Choummaly allowed me to conduct research and collect samples in the slaughterhouse and Mr. Keo was a paid research assistant provided by the Lao PDR NAHL.

(2) During my internship, I was able to observe their slaughter process and examine the viscera of processed animals at the Done Dou Modern Slaughterhouse.

(3) Here, I am outside of the National Animal Health Laboratory in Vientiane, Lao PDR, which is the agency that granted me permission to conduct my research. All samples collected from the slaughterhouse were brought here for initial processing before being shipped to the US AFRIMS in Bangkok, Thailand.
JULIE THOMPSON (DVM 2018) traveled to Kuala Lumpur, Malaysia, for an internship at the Universiti Putra Malaysia Falkulti of Veterinary Medicine, where she worked with Dr. Saleha Abdul-Aziz in the Public Health Lab and completed a short project on the isolation and identification of Salmonella and Campylobacter in wild birds. “Although this trip certainly gave me hands on experience working in a veterinary public health lab, I feel I will remember the people most of all. Within our lab alone, there were individuals from Malaysia, Nigeria, Pakistan and the United States who all shared stories of home, religious and cultural customs, favorite foods, pictures of loved ones and more. It was truly an immersion experience and I feel I have gained the most simply from being able to interact with these people from all over the world.” Photos and captions provided by Julie Thompson.

(1) These are the people I worked with in the veterinary public health lab at UPM. From left to right: our lab assistant, Puan Fauzia Nordin; Dr. Saleha Abdul-Aziz, me and Dr. Mohammed D. Goni, who is working on his MPH.

(2) This photo was taken in front of the prime minister’s palace in Putrajaya. On the left is Dr. Jalila Abu and on the right is Dr. Saleha Abdul Aziz.

(3) Ashlynn Turner and I rented a motorbike for a day to explore Penang Island during our weekend visit there. Penang is a small island off the west coast of peninsular Malaysia and is known for its amazing food!
SCOTT EPPERSON (DVM 2018) spent his summer in Bangladesh working for both the Influenza Division of the U.S. Centers for Disease Control and Prevention, and the International Centre for Diarrhoeal Disease Research, which is located in Dhaka. Epperson, who has an MPH from the University of Arizona, spent two months evaluating an avian influenza surveillance system and also helping to revise the protocol for investigation of human infections with avian influenza viruses. His work required an understanding of the poultry raising and selling practices, and led him to multiple visits to live bird markets in Dhaka and elsewhere in the country. “People in Bangladesh were incredibly generous and seemed genuinely interested to find out what I was doing in their town. I was able to talk about my work and find out a little bit about their lives as well. Some of the most memorable experiences from my trip aren’t the ones that involved sightseeing or a weekend getaway, but rather the moments that gave me a greater insight into people’s daily lives and the Bangladeshi culture. While the work was interesting and challenging, these simple memories are the things I will take with me and which continue to fuel my interest in international veterinary medicine.” Photos and captions provided by Scott Epperson.

(1) This is a typical scene from the streets of Dhaka. Other than walking, bicycle rickshaws (seen in the background with the blue coverings) are the main mode of transportation on the narrow and crowded roads.

(2) This is me outside the Khan Mohammed Mridha Mosque during a sightseeing tour of Old Dhaka.
During her four weeks at the Maetaman Elephant Camp in Chiang Mai, Thailand, **Stephanie Howell** (DVM 2018) spent her mornings bathing, feeding and cleaning enclosures for the elephants in the camp. In the afternoons, she and the other volunteers answered questions for visitors to the camp, and also helped with cooking and peeling vegetables in the kitchen, assisting with first aid for the elephants and packing grain to feed the elephants. After her time in Chiang Mai, Howell traveled to Krabi, in southern Thailand, and shadowed an elephant veterinarian for two weeks. “He taught me to clean and medicate wounds, trim nails, administer fluids and injectable medications, and draw blood from elephants. Each day we treated the elephants staying at the hospital, and in the afternoons we traveled to local elephant camps and homes to assess the health of the elephants working there. During this time, I was able to see a lot of Thailand and really had a chance to immerse myself in the local culture. Everyone is considered part of a family, and it was a wonderful experience to learn new things and feel so welcome during my time there.” *Photos and captions provided by Stephanie Howell.*

1) This picture was taken at Maetaman Elephant Camp near Chiang Mai, Thailand. BeBo, the elephant pictured here, is one of the tallest elephants at the camp and the elephant I was assigned to work with during my time here. His mahout, LongWan, has been working at the camp for 15 years and has a very strong bond with BeBo.

(2) This picture was taken during morning treatments at the elephant hospital in Krabi, Thailand. I am cleaning an abscess on an elephant’s head that went unnoticed by the owner for a while and had to be treated. The elephant’s mahout, or trainer, is standing with him to keep him comfortable and me safe. With a patient 10 feet tall, the staff has to be creative and resourceful in finding a way to reach the patient for care. *Photo by Khajohnpat Boonprasert, DVM.*

(3) This picture was taken during morning treatments at the elephant hospital in Krabi, Thailand. I am cleaning a puncture wound on an elephant’s foot from stepping on a sharp log. In order to lift her foot for treatments, her foot is placed in a sling and hoisted by a 5-ton crane from the rafters and her ankle is gently secured with ropes to keep her balanced. After cleaning and medicating her foot, we placed it in a large waterproof sock to keep her sole protected during the day. *Photo by Khajohnpat Boonprasert, DVM.*
AMANDA MORVAI (DVM 2018), who wants to become a zoo veterinarian and has always dreamed of working with elephants, also traveled to Chiang Mai to intern at the Maetaman Elephant Camp through the Friends for Asia program. “My time in Thailand was truly an invaluable experience, as I was able to interact hands-on with these magnificent creatures every day. I was allowed to work with the veterinarian at the elephant camp, who taught me how to treat abscesses, assess skin condition, evaluate causes of lameness, change wound dressings, remove parasites and give injections. In addition, I gained experience in general elephant husbandry and behavior by cleaning my elephant’s enclosure, feeding him, giving him vitamins, riding him down to the river and bathing him twice a day, and simply by being able to observe the elephants 24/7. I could not have asked for a better way to spend my summer!”

(1) This is me trekking up a mountain with my elephant, Boom-Mee, whom I cared for during my four weeks at the camp in Chiang Mai.

(2) Twice daily, the elephants at the camp in Chiang Mai are led down to the river to be bathed and enjoy some playtime in the water, which often results in friendly water fights between the elephants and humans alike. The elephant mahouts help us with this task. In this photo, I am in the red shirt.

(3) While in Chiang Mai, I also visited Tiger Kingdom, which aims to increase Thailand’s tiger population through captive breeding (though, the tigers bred at the facility live their lives in captivity). Tiger Kingdom estimates that about 120 wild tigers still inhabit the country; more than 100 tigers live in captivity at their facilities.
VALERIE C. MARCANO (DVM 2017), who is enrolled in the CVM’s DVM/PhD program, received a 2015 Foundation Poultry Scholarship from the American Association of Avian Pathologists.

The AAAP also presented ERIC SHEPHERD (DVM 2016) the L. Dwight Schwartz Travel Scholarship to present his work, “Development of Real-Time Quantitative RT-PCR assays to detect GA07, GA08, and GA13 Infectious Bronchitis Virus,” at the Avian Medicine Section of the Annual Meeting of the American Veterinary Medical Association.

SARAH SAPP, who is pursuing her PhD, won the Best Student Poster Award at the 64th International Conference of the Wildlife Disease Association, held in Australia in July. Sapp also received third place for her oral presentation at the annual symposium of the UGA student chapter of the WDA.

ISABELLE DESPREZ, DVM, a specialty intern on the zoological medicine service, won third place at the Association of Exotic Mammal Veterinarians International Conference on Avian, Herpetological and Small Animal Medicine. Her research project was titled, “Intravenous Lidocaine and Buprenorphine Effects on Postoperative Pain and GI Motility in New Zealand White Rabbits.” JESSICA COMOLLI (DVM 2016) won first place at the conference for her project titled, “Comparison Between Endotracheal Intubation and Laryngeal Mask Airway in New Zealand White Rabbits Undergoing Laparotomy.” Both projects were led by RODNEY SCHNELLBACHER, DVM, who was a resident on the service from 2011-2014.

LAYLA SHAIKH, VMD, DACVR, who recently completed her residency on the diagnostic imaging service, received the “Outstanding Oral and Poster Presentation” award at the American College of Veterinary Radiology conference in October for her project titled, “Use Of A 15-Channel Knee Coil Versus A 6-Channel Body Matrix Coil For Magnetic Resonance Imaging Of The Distal Equine Limb At 1.5T.”

JILL HICKS, DVM, a resident on the Neurology and Neurosurgery service, received a research award at the American College of Veterinary Internal Medicine meeting for her project titled, “Evaluation of Temozolomide and Gadolinium Conjugated PLGA Microcylinders in the Canine Brain.”

ANDREW WOOLCOCK, DVM, DACVIM, who recently completed his residency on the internal medicine service, also received a research award at the ACVIM meeting for his research project titled, “Evaluation of the Use of Baseline Cortisol to Monitor Twice-Daily Trilostane Therapy in Dogs With Spontaneous Hyperadrenocorticism.”

CHRISTINA VARIAN, a PhD student in pathology, won the National Geographic Young Explorer’s award for her doctoral dissertation project titled, “Influences of food web dynamics on multi-host vector-borne disease: Using Chagas disease as a model system.”

DAVID BALINSKY (DVM 2018) received a grant from the UGA Office of Sustainability to create an aquaponics system at the UGA CVM.

PATRICK BALES (DVM 2018) received a 2015 Veterinary Student Leadership Award from the Lesbian and Gay Veterinary Medical Association. Bales will work with recipients from three other schools to create a strategic plan for the national Broad Spectrum Veterinary Student Association in 2016. Their aim is to develop a more formalized network for linking veterinary student chapters and clubs throughout North America.
RESIDENTS WHO RECENTLY PASSED SPECIALTY BOARDS

The following veterinarians recently passed specialty board certification exams. All have served, or currently serve, as residents at our Veterinary Teaching Hospital or studied in specialty areas at the CVM.

LAYLA SHAIKH, by the American College of Veterinary Radiology

ANDREW WOOLCOCK, by the American College of Veterinary Internal Medicine

AMY DIXON-JIMENEZ, by the American College of Veterinary Internal Medicine in cardiology

JENNIFER PIERRO, by the American College of Veterinary Internal Medicine, in oncology

RENEE BARBER, by the American College of Veterinary Internal Medicine, in neurology

YUN-TING WANG (MAM ’13), by the American College of Poultry Veterinarians

ELIZABETH DALE (DVM ’13, MAM ’14), by the American College of Poultry Veterinarians

SARAH TILLEY (MAM ’14), by the American College of Poultry Veterinarians

THOMAS “TJ” GAYDOS (MAM ’14), by the American College of Poultry Veterinarians
The annual Science of Veterinary Medicine Symposium, which highlights research conducted by students, was held Oct. 8. A total of 21 students were recognized for their work:

**ORAL PRESENTATIONS**

**Veterinary/Undergraduate students**
1st place: Dylan Djani (DVM 2017)
2nd place: Mireya Smith (DVM 2018)

**Graduate students**
1st place: Tara Bracken (Infectious Diseases)
2nd place: Mathew Abraham (Infectious Diseases)
3rd place: Melissa Miller (Infectious Diseases)

**Residents and Interns**
1st place: Selena Lane (Resident, Small Animal Emergency/Critical Care medicine)
2nd place: Bianca Lourenço (Resident, Small Animal Internal Medicine)
3rd place: Jill Hicks (Resident, Neurology)

**Post-docs**
1st place: Constantinos Kyriakis (Infectious Diseases)
2nd place: Clement Gnanadurai (Pathology)
3rd place: Ying Huang (Pathology)

**POSTER PRESENTATIONS**

**Veterinary/Undergraduate students**
1st place: Shelbe Rice (DVM 2018)
2nd place: Morgan Adkins (DVM 2018)
3rd place: Victoria Demello (DVM 2018)

**Graduate students**
1st place: Samantha Tucker (Infectious Diseases)
2nd place (tie): Robert Williams (Veterinary Biosciences and Diagnostic Imaging)
2nd place (tie): Christina Varian (Pathology)

**Residents and Interns**
1st place: Xia Guo (Post-doc, Physiology and Pharmacology)
2nd place: Xiaobing Cui (Post-doc, Physiology and Pharmacology)
3rd place: Claudia Baumann (Post-doc, Physiology and Pharmacology)

The UGA CVM welcomed the class of 2019 during its annual White Coat Ceremony held Sunday, Aug. 16. Sponsored by the Georgia Veterinary Medical Association (GVMA), this event officially recognized 114 members of the incoming class by donning them in lab coats to be worn during their veterinary education. The incoming class includes 88 women and 26 men. This class features a wide variety of interests, including: 31 percent interested in companion animal medicine; 37 percent interested in mixed-animal medicine; 11 percent interested in zoo animal and wildlife medicine; 4 percent in food animal medicine; 11 percent in public health; 6 percent in equine medicine. *Photo by GradImages.*
Sheila W. Allen, DVM, MS, DACVS, was named Veterinarian of the Year for 2015 by the Georgia Veterinary Medical Association. Dr. Allen has served as Dean of the College since 2005.

Michelle Barton, DVM, PhD (‘90), DACVIM (LAIM), is now director of Clinical Academic Affairs and heads the academic affairs office at the UGA Veterinary Medical Center, which is where third- and fourth-year veterinary students are now based. Mary Hondalus, DVM, PhD, DACVIM (LAIM), is director of Pre-Clinical Academic Affairs and is located at the main CVM campus, where first- and second-year veterinary students are based. Dr. Barton is a professor of large animal internal medicine in the Department of Large Animal Medicine. Dr. Hondalus is an associate professor of infectious diseases in the Department of Infectious Diseases.

Corrie Brown, DVM, PhD, DACVP, of the Department of Pathology, received a 2015 Alumni Achievement Award from the University of California, Davis, where she earned her PhD. Dr. Brown was also one of eight veterinarians who in 2015 were accepted as new fellows of the Veterinary Medicine Academy of the National Academies of Practice.

Holly Sellers, MS, PhD, received the Bruce W. Calnek Applied Poultry Research Achievement Award, which is given annually to a member of the American Association of Avian Pathologists who has made outstanding research contributions resulting directly or indirectly in a measurable, practical impact on the control of one or more important diseases of poultry. Dr. Sellers is a professor in the Poultry Diagnostic and Research Center.

Melinda Camus, DVM, DACVP, and Scott Secrest, DVM, MS, DACVR, were selected to participate in the 2015-2016 UGA Teaching Academy Fellows Program. Dr. Camus is an assistant professor of clinical pathology in the Department of Pathology. Dr. Secrest is an assistant professor of diagnostic imaging in the Department of Veterinary Biosciences and Diagnostic Imaging.

Ray Kaplan, DVM, PhD, DEVPC, DACVM (Parasitology), a professor of parasitology in the Department of Infectious Diseases, was part of a team that won the Southeast Area Technology Transfer Award for their “Technology to Aid in the Control of Internal Parasites in Sheep and Goats.”

Don Harn, MA, PhD, became the director of the Faculty of Infectious Diseases effective Jan. 1. Dr. Harn is a Georgia Research Alliance Distinguished Investigator and a professor in the Department of Infectious Diseases.

Jeremiah Saliki, DVM, PhD, DACVM, was awarded the E.P. Pope Award at the annual meeting of the American Association of Veterinary Laboratory Diagnosticians. The award is bestowed upon persons who have made noteworthy contributions to the AAVLD and the field of veterinary diagnostic laboratory medicine. Dr. Saliki is director of the Athens Veterinary Diagnostic Laboratory, head of the lab’s Virology/Serology section and a professor in the Department of Infectious Diseases.
Margie D. Lee, MS, DVM, PhD, is one of 10 new members appointed by U.S. Agriculture Secretary Tom Vilsack to the National Advisory Committee on Microbiological Criteria for Foods. Dr. Lee, who is a professor in the Poultry Diagnostic and Research Center, will serve for the 2015-2017 term.

John Fischer, DVM, PhD, is one of 19 new members appointed by U.S. Agriculture Secretary Tom Vilsack to the USDA Advisory Committee on Animal Health. Dr. Fisher, who is director of the Southeastern Cooperative Wildlife Disease Study, will serve on the committee through June 2017.

Andrew R. Moorhead, DVM, MS, PhD, DACVM, was recently board-certified by the American College of Veterinary Microbiology (Parasitology).

In November, Kelsey Hart, DVM, PhD, DACVIM (LAIM) became director of Georgia Veterinary Scholars Program and Jennifer Smith-Garvin, DVM, PhD, became co-director. Dr. Hart is an assistant professor of large animal internal medicine and Dr. Smith-Garvin serves the College as assistant director for research and graduate affairs. The two replace Susan Sanchez, BSc, MScc, PhD, CBio, MIBiol, who led the program for eight-and-a-half years. Dr. Sanchez will continue to serve GVSP as its consulting director; she also is a professor in the Department of Infectious Diseases and section head of Microbiology and Molecular Biology for the Athens Veterinary Diagnostic Laboratory. In addition, she serves as the chair of One Health @ UGA.

Karen J. L. Burg, MS, PhD, the first Harbor Lights Chair in Small Animal Studies (see story on page 9).

Timothy Burg, PhD, professor in the Department of Veterinary Biosciences and Diagnostic Imaging. Dr. Burg will also serve as director of the UGA Office of Science, Technology, Engineering and Mathematics Education.

Puliyur Seshadri Mohankumar, BVSc, PhD, professor of anatomy in the Department of Veterinary Biosciences and Diagnostic Imaging.

Lois Zitzow, DVM, MS, joined UGA as director of University Research Animal Resources and also as an associate professor of laboratory animal medicine in the Department of Population Health.

Frane Banovic, DVM, PhD, DECVD, is an assistant professor of dermatology in the Department of Small Animal Medicine and Surgery.

Fiona Batemen, BVSc, MACVSc (Small Animal Medicine), DACVD, is an assistant professor of dermatology in the Department of Small Animal Medicine and Surgery.

Rebecca Wilkes, DVM, PhD, is an assistant professor of infectious diseases in the Department of Infectious Diseases; Dr. Wilkes is based at the Tifton Veterinary Diagnostic and Investigational Laboratory.

Erin McConachie, DVM, DACVIM (LAIM), is a clinical assistant professor of large animal internal medicine in the Department of Large Animal Medicine.

Pej Rohani, PhD, a professor who is jointly appointed to the Department of Infectious Diseases and the Odum School of Ecology.

Jae-Kyung (Jamise) Lee, PhD, is an assistant professor in the Department of Physiology and Pharmacology.

Mark Ruder, DVM, PhD, is an assistant research scientist based in the Southeastern Cooperative Wildlife Disease Study, in the Department of Population Health.

Eric Harvill, PhD, is the UGA Athletic Association Professor of Microbiology and Infectious Diseases in the Department of Infectious Diseases.
CAREER CHANGE!
A PART-TIME JOB HELPED AN ELEMENTARY SCHOOL TEACHER DISCOVER HER PASSION FOR VETERINARY SCIENCE

Kari Fine Coulson (PhD ’12, DVM ’14) taught elementary school before discovering she had a passion for the veterinary sciences. The UGA CVM’s Veterinary Medical Scientist Training Program helped her change careers. We talked to Dr. Fine Coulson about why she decided to shift her career focus and why she chose the UGA CVM to help her attain her career goals.

WHERE ARE YOU FROM?
I’m originally a North Carolina native, but my family and I moved around quite a bit both locally and internationally when I was growing up. I’ve recently moved back to North Carolina from frosty Michigan, with my husband and son, and am enjoying being back home with close family and friends!

WHAT DID YOU DO BEFORE COMING TO UGA?
I graduated from the University of Vermont with a degree in elementary education. Over a span of 4 years, I taught kindergarten, first and second grades in Massachusetts and then North Carolina. While teaching, I started working part-time for my local veterinarian and discovered I had a deep passion for the veterinary profession. After much deliberation, I decided to go back to school to become a veterinarian. While taking some prerequisite courses for veterinary school in the evenings, I became involved in a research project at University of North Carolina, Greensboro, studying the effects of caste on DNA mutations and aging in honey bee populations. Through this experience, I decided I wanted to integrate a scientific research component into my veterinary training. When I finally completed my prerequisite courses, I moved to Georgia and applied to the Veterinary Medical Scientist Training Program (VMSTP) at UGA, which would later provide me a unique opportunity to obtain both my PhD (in infectious diseases) and my DVM degrees.
WHAT MADE YOU CHOOSE THE UGA CVM FOR YOUR EDUCATIONAL GOALS?

After discovering my dual interest in veterinary medicine and infectious disease research, I knew I wanted to simultaneously pursue both interests. I was specifically interested in the VMSTP program offered at UGA. The VMSTP is coordinated by both the CVM and the Graduate School to provide students with the educational and financial support needed to achieve a DVM and PhD. This program is flexible, allowing students to work through both challenging programs in a way that addresses individual needs.

WHAT MADE YOU WANT TO PURSUE THIS PARTICULAR DEGREE?

Aside from offering the VMSTP, which specifically addressed the integrated professional training I wanted to pursue, UGA has exceptional veterinary and infectious disease programs. The clinicians and professors are extremely knowledgeable and truly care about their students.

WHAT ARE YOU DOING NOW?

Currently, I am employed by the USDA Veterinary Services as a field Veterinary Medical Officer (VMO).

HOW DID YOUR EDUCATION HERE AT THE UGA CVM PREPARE YOU FOR YOUR CURRENT POSITION?

UGA not only gave me a solid foundation in clinical veterinary medicine, but also provided an opportunity for integrated training in infectious diseases, which is a fundamental component to successfully performing my duties as a VMO with the USDA.

WHAT ASPECTS OF THE PROGRAM WERE MOST BENEFICIAL TO YOU?

The curriculum at UGA CVM allows students to pursue varied interests within the field of veterinary medicine. With a public/corporate emphasis, I was able to engage in a variety of national and international externships during my senior year. This range of experiences broadened my understanding of veterinary medicine and provided for networking opportunities which were instrumental in obtaining my current position. I certainly appreciated having the flexibility to tailor my clinical experiences to my personal professional interests.

WAS THERE A PARTICULAR PROFESSOR HERE WHO MADE A BIG IMPACT ON YOUR TIME HERE?

It would be too difficult for me to pick any one professor who influenced my education more than another. I will say that without question, UGA CVM has an outstanding large animal faculty. As a group, they work very hard to teach veterinary medicine in the context of agriculture production systems. This kind of instruction is invaluable in practice and I believe is a real strength of the program.

WHAT’S YOUR FAVORITE PART OF YOUR CURRENT JOB?

My position as a VMO allows me to utilize both my training in food animal medicine as well as my background in infectious diseases by participating in federal program disease surveillance. Federal regulatory medicine supports state and local veterinarians in protecting national food animal agriculture and I enjoy being a part of that. Additionally, I work with tremendously knowledgeable and supportive veterinarians who have taught me a great deal about balancing regulatory responsibilities and supporting local food animal producers.
The trees surrounding Lake Herrick have shown their autumnal red, orange, and purple palette and now stand bare as wintertime in Athens arrives. Along those arboreal lines, we are especially thankful to welcome a new oak tree to our front lawn to replace the majestic old tree that lived here for decades. A heartfelt thanks to all of you who contributed to the purchase of this new tree. Those of us at the CVM are excited to watch its measured maturation and relax under its shade for the next few decades.

Our Alumni Board last met in October on the day of the Dean’s Tailgate party. It was wonderful to see friends old and new. We were both saddened and happy to learn that Kathy Bangle, a long time and very much loved cornerstone in the College’s External Affairs office, was promoted to a new position within the UGA Division of Development and Alumni Relations. Congratulations to Marti Brick, who was named the new director of External Affairs, and to Molly Thomas, who was named director of Development!

At the last Board meeting, we discussed methods to involve alumni with students and recent graduates. Along those lines, a special thanks to fellow classmates Brett Levitzke (DVM ’00), who is also a member of our Board, and Tim Loonam (DVM ’00), who came to campus for an Alumni Speaker Series event to offer early career opportunity advice to our students. We would love to host other alumni who are interested in sharing their expertise with our students in small or large groups. Please contact our External Affairs office (give2vet@uga.edu or 706.542.1807) if you would like to participate.

Members of our Alumni Association also met in Macon for the annual Macon BBQ, for which we extend a special thanks to Jeff and Stephanie Jordan (both DVM ’92) for again hosting this fun event! Be sure to join us for our alumni gatherings at the regional veterinary meetings in Georgia and South Carolina later this year. As always, we invite you to call and let us know if you would like to host a local Alumni function.

Remember, all graduates of the UGA CVM are automatically members of the Alumni Association and we do not collect dues. If you want to nominate alumni for recognition, get more involved with the Alumni Association, or have other questions or comments, contact the CVM’s External Affairs office.

Go Dawgs!

Chad Schmiedt
DVM (’00), DACVS
President
JACINTA SMITH (MS ’04) was selected as a UGA 40 Under 40 award winner for 2015. Smith is a microbiologist for the U.S. Centers for Disease Control and Prevention. She also earned her undergraduate degree from UGA in 2001 and is currently pursuing a doctor of public health degree from the College of Public Health.

JASON EISELE (DVM ’02) and FRANK BATTEN (DVM ’72) both made the UGA Alumni Association’s 2016 Bulldog 100 list, which celebrates the 100 fastest-growing businesses owned or operated by UGA alumni. Dr. Eisele owns Specialized Veterinary Services in Fort Myers, Florida, and Dr. Batten owns Vets Pets in Wilson, North Carolina.

BENJAMIN BRACKETT (DVM ’62), MS, MA, PhD, received a 2015 Alumni of Distinction award from the UGA Graduate School. Dr. Brackett is retired as a professor and chair of the Department of Physiology and Pharmacology. He pioneered the first repeatable in vitro fertilization and influenced the first IVF production of animals and humans. In 1983, he established Reproductive Biology Associates, an infertility clinic. In addition to being a CVM alumnus, Dr. Brackett earned three other degrees from UGA: a BSA in 1964, an MS in chemistry in 1964, and a PhD in biochemistry in 1966.

ANGELA DODD (DVM ’00) and LISA STACY (DVM ’07) have co-founded Animal Wellness Center of Athens, which opened in November.

The South Carolina Association of Veterinarians recognized two of our alumni at their fall meeting. PATRICIA HILL received the 2015 Distinguished Veterinarian of the Year award. DONALD GAMBLE received the 2015 Veterinarian of the Year award. Both Drs. Hill and Gamble are from the class of 1984.

Dr. Bracket is seated second from the end, right side, with his classmates at his 50th reunion in 2012. 
Photo by Wingate Downs Photography.
OBITUARIES

Sara J. Moore (DVM ’59); Gray, Ga.; June 12 • Pierre Wait (DVM ’61); Denmark, S.C.; June 29 • Marguerite Duffy (DVM ’71); Charlotte, N.C.; July 1 • Homer E. Connell (DVM ’57); Grandview, Mo.; July 7 • James W. Palmer (DVM ’62); Thomasville, Ga.; July 14 • Charles W. Haynie (DVM ’70); Griffin, Ga.; July 23 • David L. Ruehle (DVM ’69); Thomson, Ga.; Aug. 7 • Donovan B. Bell (DVM ’50); Dublin, Ga.; Aug. 8 • Daryl C. Johnson (DVM ’60); Athens, Ga.; Aug. 21 • Edwin M. Odor (MAM ’82); Tavares, Fla.; Aug. 21 • Samuel F. Garrett (DVM ’66); Griffin, Ga.; Oct. 7 • David W. Dreesen (DVM ’60); Winterville, Ga.; Nov. 12 (see box) • Hugh M. Scott (DVM ’59); Keysville, Ga.; Nov. 17 • Wayland F. Hogan (DVM ’55); Ocala, Fla.; Nov. 26 • Thomas B. Clarkson (DVM ’54); Clemmons, N.C.; Dec. 1 • Robert D. Whiting (DVM ’59); Mechanicsville, Va.; Dec. 10 • Thomas A. Hutto (DVM ’85); Mt. Pleasant, S.C.; Dec. 14 (see box) • Eric J. Lovell (MAM ’93); Pensacola, Fla.; Dec. 16 • John R. Hagaman (DVM ’63); Huntersville, N.C.; Jan. 1

**DR. DAVID W. DREESEN**, of Winterville, Georgia, died on Nov. 12 due to complications from Myasthenia Gravis. Dr. Dreesen earned his BSA from the UGA College of Agriculture in 1956 and graduated from the College of Veterinary Medicine in 1960. By the mid 1960s, after several years of employment with the USDA and additional training at several universities, he was promoted as one of the first USDA epidemiologists. Dr. Dreesen's long and distinguished career included time as Georgia’s state veterinarian; executive director of the Atlanta Humane Society and SPCA; as a scientist with the Pan American Health Organization (WHO); and vast service to his profession, including to the FDA and AVMA. After his work with WHO, Dr. Dreesen returned to his alma mater and served on the CVM’s faculty, retiring as a Professor Emeritus in 1998. His numerous awards for his contributions to public health included being recognized by the AVMA in 2000 as the Public Service Veterinarian of the Year; the Helwig-Jennings Award from the American College of Veterinary Preventive Medicine for “significant and lasting contributions” to his field; and being named a Distinguished Alumnus by the UGA CVM in 1995. Dr. Dreesen is survived by his loving wife of 60 years, Alice Mewborn (Libby) Dreesen (DVM ’58), their children and grandchildren.

**DR. THOMAS A. HUTTO JR.** of Mt. Pleasant, South Carolina, died at his home on Dec. 15. Born in Charleston, Dr. Hutto earned his undergraduate degree from the University of South Carolina and graduated from the UGA College of Veterinary Medicine in 1985. He dedicated his life to loving animals through his veterinary practice. Hutto and Merrill Irvin (DVM ’73) established West Ashley Veterinary Clinic in 1987 and later added a sister clinic, Northwoods Veterinary Clinic, in North Charleston. Dr. Hutto served on the Veterinary Alumni Association board from 2011 to 2015.
Why We Give

Congratulations to the Class of 1988 on your recently endowed scholarship!

For almost a decade, members from the CVM’s Class of 1988 have been working toward endowing a scholarship fund. They hit their goal—a $25,000 achievement—this fall!

The idea originated after their 20th reunion when Brenda Horton, a well-known, loved and now retired member of the CVM’s Office for Academic Affairs, called Ralph Askren to let him know that his class had raised such a significant amount during the reunion class campaign that the class could choose what to do with the funds. Horton tasked Askren with polling his classmates to find out what they wanted to do. “That’s quite a challenge, 20 years after graduation,” noted Askren about his quest to reach his classmates. But, he succeeded.

“The overwhelming consensus was to use the funds for a scholarship,” he said, “which then became a goal to endow a fund.”

For help, Askren reached out to classmates Bob Brewster, Jimmy Cobb, Richard Duffey and Patrick Tanner, who forged a committee. “The class wanted to focus not on economic need or academic standing, but on individuals who showed themselves to be service minded, altruistic, and giving of themselves—not just to animals, but to people as well,” members of the committee said.
Through the years, the committee members worked together to encourage their classmates, friends, family members, local businesses and others to contribute to the fund. They have been steadfast in this effort, even while the College shifted its giving priorities toward raising the money needed to build the new UGA Veterinary Medical Center, which opened last March.

While it has been a lengthy effort, the committee members say they found multiple benefits through their endeavors, especially the ability to reconnect with old friends. But perhaps the biggest gift to the committee and their classmates is the knowledge that they will make an impact on their profession and their alma mater in perpetuity.

“The cost of veterinary education is becoming an increasingly difficult challenge for students. Now endowed, our scholarship will make a lasting impact on the future of our profession by helping to allay those costs and will be a permanent vehicle showing our support for the University of Georgia College of Veterinary Medicine,” the committee said by email. “In addition, the scholarship is a tangible representation of the bond that saw us through the rigors of our years of study and continues to unite us these many years later. We all share overwhelming enthusiasm for this accomplishment.”

Determining the scholarship criteria was also part of the committee’s tasks. Going forward, this scholarship will be awarded to a rising senior veterinary student in good standing at the CVM who has demonstrated both a superior collegial demeanor in relationships with faculty, staff and fellow students, and has shown personal sacrifice in meeting the needs of animals and people. It will only be awarded in years where the pool includes outstanding applicants for the scholarship. Considerations for the award include congeniality, benevolence, selflessness, initiative, breadth of involvement in professional opportunities, assistance to fellow classmates, demonstrable care of animals, community involvement, degree of commitment of personal time in altruistic activities, and demonstrated occasions of “going the extra mile.”

The first scholarship is expected to be awarded in 2018, which will mark the class’s 30th reunion year.

“The class made this happen,” noted Askren, who credits Horton with keeping the project on track by sending the committee members notes of encouragement from time to time. “It just took a few individuals to help keep the ball rolling.”

“There are many worthwhile demands on our resources these days,” the committee members said about giving. “Finding something one believes in and working in some capacity to see it flourish is a very rewarding experience. Giving does not always have to involve a donation of funds. A commitment of one’s time, talents, etc., can be just as important.”
Your classmates want to know what’s happening in your life. Drop us a line! Please include your current contact information, including your phone number and email address, to help us keep our alumni database up to date. Send your information to:

vetalums@uga.edu
or fax: 706.583.0242
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<td>Annual Open House at the UGA CVM</td>
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<td>Phi Zeta Ceremony</td>
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<td>Honors and Awards Banquet</td>
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<td>May 7</td>
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<td>June 1-5</td>
<td>Emerald Coast Veterinary Conference (GVMA annual meeting)</td>
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<td>August 5-9</td>
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<td>August 8</td>
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**DATES TO REMEMBER**

**CONTINUING EDUCATION COURSES**

CE dates and topics are subject to change. Questions about CE? Contact Melissa Kilpatrick at melissak@uga.edu or 706.542.1451, or online at www.vet.uga.edu/ce

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<tr>
<td>March 11-12</td>
<td>53rd Annual Veterinary Conference and Alumni Weekend</td>
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<td>(at the Georgia Center)</td>
</tr>
<tr>
<td>March 12</td>
<td>Veterinary Technician Conference</td>
</tr>
<tr>
<td>April 10</td>
<td>Wildlife Rehabilitation</td>
</tr>
<tr>
<td>July 15-16</td>
<td>GI Endoscopy</td>
</tr>
<tr>
<td>August 7</td>
<td>Ophthalmology (Wet Lab)</td>
</tr>
<tr>
<td>August 14</td>
<td>Laser Therapy</td>
</tr>
<tr>
<td>September 17-18</td>
<td>Small Animal Surgery (Wet Lab)</td>
</tr>
<tr>
<td>September 24-25</td>
<td>Interventional Endoscopic Surgery (Wet Lab)</td>
</tr>
<tr>
<td>October 8-9</td>
<td>Internal Medicine</td>
</tr>
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</table>

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