In Good Hands
The Foster Hospital for Small Animals stands at the forefront of intensive care
Award–Winning Study Says Test Method Benefits Equine Patients

Dr. Rose Nolen-Walston, a staff veterinarian in large animal internal medicine at Tufts’ Hospital for Large Animals, received an award for the best equine research presented by a resident at the 2005 meeting of the American College of Veterinary Internal Medicine in Baltimore, Maryland. Nolen-Walston completed her residency in large animal internal medicine at Cummings in June 2005.

A total of 80 residents competed in this award program. Nolen-Walston’s presentation, “Effect of Detomidine Sedation on Respiratory System Resistance,” showed that veterinarians can make clinical lung function testing of equine athletes less stressful and more efficient by using a long-lasting sedative during the procedure.

According to Nolen-Walston, airway disease is the second most common cause of decreased performance in equine athletes. Inflammatory airway disease—a condition similar to asthma in humans—is the most prevalent dysfunction of the lower respiratory tract. To diagnose this disease, Nolen-Walston and other veterinarians at the Tufts Lung Function Laboratory use a non-invasive test called forced oscillatory mechanics to measure the performance of small airways in the lung. Horses must be lightly sedated during the procedure for about 40 minutes. Since the sedative traditionally used lasts for half that time, many horses must undergo multiple intravenous injections throughout the testing.

“My research project was designed to investigate whether detomidine—a longer acting sedative—affects the results of lung function testing,” Nolen-Walston explained. “Our data showed there was no significant difference between the results of horses sedated with or without detomidine. This should allow us to improve the clinical lung function testing of equine athletes, making the procedure less stressful to the horse and more beneficial for the veterinarian.”
The Cummings Contribution

Avian influenza has captured the concern and curiosity of people throughout the world. At the Cummings School, we see how this one threatening disease illustrates the intersection of multiple aspects of veterinary medicine, in particular, domestic poultry and poultry keepers, livestock disease monitoring, wildlife health surveillance, companion animal medicine, and public health. Avian influenza has had a devastating impact on poultry farmers and allied industries; it is now clear that the disease is moving along the migratory routes of certain wild birds; a domestic cat contracted the disease in Europe; zoo cats died from eating infected poultry in Asia, and more than 100 people who have contracted the virus from direct contact with infected birds have died worldwide.

What are we doing?

Our wildlife health veterinarians are working with state, regional, and national agencies, taking advantage of programs we've built through years of wildlife health surveillance, to establish systems for tracking avian influenza and for ensuring coordination between organizations. We are augmenting our longstanding federally funded research efforts on preventing and controlling the agents of food and waterborne infectious diseases, we are adding faculty and building a facility devoted to the study of the important diseases that are transmitted from animals to people.

We have faculty members, funded by the Food and Agriculture Organization (FAO) of the United Nations, and soon will have students on the ground in Indonesia, a hotspot of avian influenza in poultry and poultry keeping. They are using epidemiological tools and our experience in controlling similar viral diseases to assess this critical situation and recommend science-based policy solutions to control the disease.

We have boosted our commitment to educating our students in principles of public health, adding a faculty member dedicated to the discipline. See the story on our global health curriculum in this issue.

We are spreading the word about the importance of encouraging more veterinarians to choose careers in public service and biomedical research, improving and protecting public health. Dr. George Saperstein's editorial opinion piece on the following page, reprinted from the Worcester Telegram & Gazette, is an example of this effort.

The value of our innovative, comprehensive Cummings School curriculum, which includes focused programs in areas such as international veterinary medicine, conservation medicine, and wildlife medicine not found at most other veterinary colleges, is apparent in the face of a challenge like avian influenza.

FROM THE DEAN

Veterinarians play a vital role in maintaining public health

BY DR. GEORGE SAPERSTEIN

PREVENTING A BIRD FLU PANDEMIC BY DEVELOPING A VACCINE FOR HUMANS is like trying to stop a volcano by sprinkling water on the lava flow. Our first step must be to control outbreaks in animal populations—before the flu mutates.

More than 75 percent of all infectious diseases emerging in the last 50 years have been zoonotic diseases, those that move from animals to people. Besides avian flu, these diseases include AIDS, Lyme disease, mad cow disease and SARS.

More people are not familiar with the veterinarian as public health practitioner. But when avian flu reaches America, it will be a public health veterinarian who first detects it in a migratory or domesticated bird. These are veterinarians who understand the biology and behaviors of animals, the agents that infect them, the systems that house them, the environments in which they live, and the risks to people who care for them.

This little-known breed of veterinarian is a member of the same profession that loves taking care of your cat, dog or hamster. But the ultimate patient is also humankind.

Overall, there is a lack of awareness how veterinary medicine is tied into public health, a dearth of positions for veterinarians in public health, and insufficient funds for research in this field. Of the approximately 80,000 veterinarians in the United States, only about 4 percent are working in federal, state or local government or in the uniformed services. These few public health veterinarians and researchers are marshaling meager resources to create national and international surveillance systems for avian influenza in both wildlife and domestic animals.

Let me repeat: The key to preventing a pandemic of avian influenza in people is a swift response to an outbreak in animal populations—before the flu mutates.

It seems obvious, but it still needs to be said: America needs more students trained for careers in public practice and veterinary research, strengthening our nation's ability to develop critical emergency response plans to protect people, animals and the environment against outbreaks of zoonotic diseases.

America needs more students trained for careers in public practice and veterinary research, strengthening our nation's ability to develop critical emergency response plans to protect people, animals and the environment against outbreaks of zoonotic diseases.

Kudos to Sen. Wayne A. Allard, R-Colo.—a retired veterinarian—and Rep. Charles W. Pickering Jr., R-Miss., for introducing this bill, as well as to Sen. Edward M. Kennedy, D-Mass., and the 14 other members of Congress, Democrats and Republicans alike, who have joined them as cosponsors. Increasing the number of veterinarians who apply their skills to public health practice and biomedical research will provide assurance that more veterinarians are on the public health team when we need them.

George Saperstein, DVM, is assistant dean for research at the Cummings School of Veterinary Medicine at Tufts University.

Dr. James N. Ross, Jr., distinguished professor of small animal medicine, retires after 24 years of service

Crossing the Owl with the Bull

In retirement, Ross plans to work half time indulging his joy in starting new endeavors and support for the veterinary hospital in Buzzards Bay. As president of the Massachusetts Veterinary Medical Association, he’ll also stay active in the profession. And he expects to stay involved “peripherally” with Cummings School. In his absence, colleagues say it is his excellent teaching that the school will miss most. Every single Tufts veterinary student in the past 24 years has learned cardiac vascular physical exam skills as only Ross can teach. Others cite the gap of not having Ross to ask the hard questions, as well as losing some of the institutional memory: knowing the history of what worked, didn’t work, and why. Says Anwer, “Some of us have asked, ‘Who’s going to keep us on track? Who will go down the basic checklist about what’s right for the school, the students, and the profession, before coming to a decision?’

If they were to ask Ross himself, he’d most likely answer, “Well, that depends.”

AN ENTREPRENEURIAL NIGHT OWL

Ross had earlier worked in laboratory animal medicine with hominoids, as he helps to launch a specialty veterinary hospital in Buzzards Bay. As president of the Massachusetts Veterinary Medical Association, he’ll also stay active in the profession. And he expects to stay involved “peripherally” with Cummings School. In his absence, colleagues say it is his excellent teaching that the school will miss most. Every single Tufts veterinary student in the past 24 years has learned cardiac vascular physical exam skills as only Ross can teach. Others cite the gap of not having Ross to ask the hard questions, as well as losing some of the institutional memory: knowing the history of what worked, didn’t work, and why. Says Anwer, “Some of us have asked, ‘Who’s going to keep us on track? Who will go down the basic checklist about what’s right for the school, the students, and the profession, before coming to a decision?’

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Crossing the Owl with the Bull

IN BRIEF

LIFE WITH A BULL

Stories like these paint Ross’s entrepre- neurial side. But he sees himself first as a veterinarian—a profession he began to consider when, as a kid growing up in Ohio, he joined a farm veterinarian on his rounds. His gift for getting along with ani- mals, however, surfaced as a toddler often visiting a farm owned by family friends.

Life hours—only to find the car locked inside the parking garage. Ross’s colleagues might consider the bull to be a perfect first best friend for someone who spent so much of his incur- bency pushing—whether on ideas or people. Always it was for good cause, as he kept pushing the agenda of what was best for the school, the students, and the profes- sion. He was also known for provoking debate to elicit new perspectives and make people rethink decisions. He often pushed back on people simply to test the strength of their convictions, not because he dis- agreed. And his trademark phrase, “Well, that depends,” often pushed people to go beyond simple answers. Ross is also credit- ed with significant pushes within the field of veterinary medicine. He was instrumen- tal in the establishment of the American College of Veterinary Emergency and Critical Care (ACVECC) and the cardiol- ogy specialty group within the American College of Veterinary Internal Medicine (ACVIM).

LEAVING—AND LOOKING AHEAD

Among all his achievements at the school, “clearly my biggest joy—other than the school’s success—has been hiring people and watching them mature as excellent cli- nicians, academicians, or researchers,” says Ross. Many of them remain at the school today, many in positions of high responsi- bility such as Anwer, who cites Ross’s men- toring as an important factor. “He always took joy and obvious pride in our success,” he says. “It didn’t matter whether he did it or not. In my mind, that’s one of his greatest attributes.” Ross also found new ways to collaborate with people in other spheres, driving the acquisition of the Tufts emergency clinic in Walpole, now TuftsVETS, as a foundation for a com- bined veterinary residency program in emergency treatment services.

In retirement, Ross plans to work half time indulging his joy in starting new things and support for his specialty veterinary hospital in Buzzards Bay. As presi- dent of the Massachusetts Veterinary Medical Association, he’ll also stay active in the profession. And he expects to stay involved “peripherally” with Cummings School. In his absence, colleagues say it is his excellent teaching that the school will miss most. Every single Tufts veterinary student in the past 24 years has learned cardiac vascular physical exam skills as only Ross can teach. Others cite the gap of not having Ross to ask the hard questions, as well as losing some of the institutional memory: knowing the history of what worked, didn’t work, and why. Says Anwer, “Some of us have asked, ‘Who’s going to keep us on track? Who will go down the basic checklist about what’s right for the school, the students, and the profession, before coming to a decision?’

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CONFERENCE SET FOR JULY 30–31

Veterinarians and their technicians should regis- ter now for this summer’s Northeast Veterinary Conference (NEVC), to be held July 30-31 at the Four Points by Sheraton Resort in Hyannis, Mass. Developed by and for the veterinary communi- ty, this annual conference features nationally renowned clinicians presenting the latest advances in veterinary medicine. Conference attendees will have ample time to hone their skills, network with their peers, and expand their corporate contacts. The NEVC is a collaborative effort between Tufts Cummings School of Veterinary Medicine and the veterinary medical community of New England. It is a non-profit endeavor and all net proceeds are used to pro- vide scholarships for students attending Cummings Veterinary School.

To register or for more information about the NEVC, contact the Office of Continuing Educa- tion at 508-887-4723; susan.brogan@tufts.edu or visit this website: http://www.tufts.edu /vet/nevC.

COMMENCEMENT: SAVE THE DATE

Cummings School of Veterinary Medicine at Tufts University will hold the school’s 24th commencement at 3 p.m. on Sunday, May 21. The ceremony will be held rain or shine in front of Tufts’ Franklin M. Low Center on Route 30, North Grafton, Mass.

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In Good Hands

The Foster Hospital for Small Animals stands at the forefront of battling infection and bringing other advances in the ICU.

First-year resident Dr. Amy Trow, V04, was on duty in Internal Medicine in the Foster Hospital for Small Animals—one of her rare shifts outside Emergency and Critical Care—when she got the page. She answered it matter-of-factly, assuming it was just routine, but soon learned differently: it was her own dog, Siler (“Si Si”) that had been seriously injured and was on his way to the emergency room.

By Leslie Limon  Photographs by Melody Ko
Si Si, with two other dogs at the house where Trow and her housemates lived, had bolted from the yard after a section of fence was toppled by a stiff wind. His bad fortune was to dash into the path of an oncoming car.

His good fortune was that members of the Tufts community happened to come onto the scene just moments after the accident occurred. One of them, Dr. April Paul, a resident in emergency and critical care at TuftsVETS emergency clinic in Walpole, was walking her dog, Savannah when she saw Si Si lying in the road with the driver of the car cradling his head. She immediately recognized the dog as Trow’s and started examining his injuries. Among other things, she was having a great deal of trouble breathing.

Paula McCarthy, a former veterinary nurse and the wife of Dr. Robert McCarthy, V93, clinical associate professor, was driving by and stopped to help. Paul placed the injured dog into McCarthy’s car. As they headed for the Foster Hospital ER, she called ahead to alert them that she was bringing in Si Si and that he would need a chest tube. So by the time they arrived, a whole battery of people—including Dr. Armelle de Laforcade, V97, assistant professor of clinical sciences; three residents; and several students—was ready for him.

They quickly intubated him to relieve his breathing. insert a urinary catheter, put him at an increased risk for acquiring an infection while in the ICU. She also knew that every catheter, venous line, or breathing tube inserted—and Si Si had a whole assortment of those—is a breach in the body’s natural barriers to infection. And she was aware that infections acquired in both human and animal hospitals can be fatal, particularly in critical cases, because they are so resistant to antibiotics.

MRSA: OUT OF THE HOSPITAL AND INTO THE COMMUNITY

Though both human and animal patients are susceptible to infection, the bacteria causing those infections are often different. One notable exception is Methicillin-resistant Staphylococcus aureus, or MRSA, a human pathogen that now crosses over to cats and dogs—and possibly back again. The past five to 10 years have seen a rise in MRSA infections acquired by humans in the community at large, outside of hospital settings. Does this mean an increase in the incidence of MRSA infections in animals outside the veterinary hospital? Dr. Scott Shaw, V98, assistant professor of clinical sciences at the Cummings School, aims to find out. In a study of six dogs diagnosed with MRSA, Shaw confirmed that all were community-acquired infections—most likely transmitted to them from their owners. “Among veterinary small animal hospitals, we’re at the forefront of looking at this emerging problem, but we’re limited by the amount of research funding available,” says Shaw. He states that, since the crossover of MRSA from animals to humans is not yet recognized widely as a public health problem, only veterinary hospitals will always work

sions, or bruised lungs, were causing the breathing problem. He needed to be sedated so he could be placed on a ventilator.

As distressed as she was about Si Si, a mixed breed she’d rescued from a North Carolina animal shelter, Trow wisely stepped back and let others treat him. “I was incredibly upset that he had life-threatening injuries, so because he’s my own personal pet I really had to distance myself from what was happening,” she says. “I visited him in the ICU during his stay, but I made a significant effort not to spend too much time there, since I also had to make sure to take good care of all of my own patients.”

She was confident that he was in the best of hands. But her training in the ICU had made her acutely aware that Si Si and his caregivers would be battling more than his injuries: his severely weakened condition put him at an increased risk for acquiring an infection while in the ICU. She also knew that every catheter, venous line, or breathing tube inserted—and Si Si had a whole assortment of those—is a breach in the body’s natural barriers to infection. And she was aware that infections acquired in both human and animal hospitals can be fatal, particularly in critical cases, because they are so resistant to antibiotics.

A LEADERSHIP ROLE

It’s been the mission of Dr. Scott Shaw, V98, assistant professor of clinical sciences, to identify and manage risk factors for hospital-acquired infection (HAI), particularly in emergency and critical care. Together with Dr. Elizabeth Rozanski, assistant professor of Clinical Sciences, and Dr. Paul, Shaw conducted a 14-month study of 307 dogs admitted to the ICU for a stay of 24 hours or longer. His first task in embarking on the study was to determine what had already been done. He found that others had published studies on the incidence of HAI in veterinary settings, but in very limited contexts. So he looked to—and borrowed from—a data collection model developed in 1970 by the Centers for Disease Control and Prevention for human HAI. As a result, the Tufts project was the first to study veterinary patients to the same extent as has been done for humans. Both the findings, and new sanitizing procedures instituted as a result, have placed the Cummings School in a leadership role in reducing the incidence of infection in the ICU for patients like Si Si.

The data collected by Shaw and his team made it possible to isolate several variables that could be identified as risk factors. The data became invaluable information for developing effective strategies to manage the risk factors over which clinicians have some control. “Probably the most significant finding was a campaign to get people to wash their hands more often,” says Shaw. He explains the factors that have always worked

IT WAS SCARY

Among the residents on duty was Dr. Catherine Rogers, V04, a classmate of Trow’s. She recalls, “When Siler first came in, it was scary since he was definitely having trouble breathing. But he was lucky that he was found by people who knew him—and who let us know he was coming in—so that things could happen so quickly.” They confirmed that severe pulmonary contu-
against hand-washing. ‘You’re supposed to wash them immediately before you touch your patient and immediately after. But that’s just not the way people have been trained to do it,’ he says. ‘Besides, washing your hands properly with soap and water takes about a minute. If you really did that between every patient contact, washing your hands would be a lot more difficult thing to implement,’ believes the positioning of hand sanitizers between cages ‘has really made it easier for people to make it a habit. Just from observation, the techs and the doctors seem to be much more conscientious about it.’

MANAGING THE CHALLENGES OF VENTILATION
Sterile protocols become significantly more important with patients who, like Si Si, need to be ventilated. The fact of just being on a ventilator puts a patient—human or animal—at high risk for developing pneumonia, a complication that can be catastrophic. Dr. Megan Whelan, V03, one of the residents who helped stabilize Si Si and who ventilated him overnight, in the ICU, explains, ‘When you’re on a ventilator, you lose the function of all the normal mechanisms that help protect your airways and allow you to expel secretions, so they all just go down the tube. We have to be very careful in moisturizing for infection. When we extubate a patient, we take a sample and do a culture of any debris on the tube.’

Whelan sat with him overnight, managing his blood pressure and vital signs, making sure the chest tube was working, and emptying it—always wearing sterile gloves and using sterile syringes—whenever small amounts of blood appeared. By the time Rogers returned to the ICU the next morning, Si Si was oxygenating well and was stable. By 9:00 a.m., they had weaned him off the ventilator. He continued to do remarkably well, particularly considering the shape he’d been in when he entered. Other than the injury to his thorax from the force of the impact with the car, his wounds turned out to be relatively minimal, consisting mostly of abrasions and cuts. To his relieved owner’s delight, he remained free of complications and went home to recuperate after just three days in the ICU.

Looking back, Trow says she feels ‘incredibly fortunate’ that Si Si ended up at the Foster Hospital, and believes he wouldn’t have survived otherwise. Tiow, who has spent time in other veterinary teaching hospitals, notes, ‘At Tufts, there seem to be a lot more notable policies and practices in the ways patients are handled to prevent infection. I know there’s a level of concern about it in other places, but it’s not as prominent, I think, because they don’t have someone like Scott, who has dedicated his research to it.’

People don’t learn from what you tell them to do, they learn from watching you do. So it’s important for faculty to model the appropriate behavior.

CATNIP AND YOUR DOG WIN NATIONAL HONORS
The Cummings School newsletter Catnip won numerous awards at the recent Cat Writers Association’s national conference in San Mateo, California, including the prestigious CWA President’s Award as the top national newsletter. This means the newsletter dominated more than 269 entries in 36 categories.

Among the judging comments: ‘This national-circulation newsletter consistently gives its lay readers important information in an entertaining package of well-thought-out, well-executed articles, columns, photos, and illustrations. Its black and white design is attractive, its content organized and easy to read. It obviously reflects the interests of its readers, while guiding them gently into being more responsible and educated cat owners.’

The Cummings School companion newsletter Your Dog was also honored at this year’s Dog Writers Association of America 2005 Writing Competition in the categories of special interest magazine and best feature in a newsletter.

Both newsletters provide a range of information about your pet’s health, behavior, diet, and general well-being.

If you would like to subscribe to either of these award-winning newsletters, call 1/800-829-0926 for Catnip or 1/800-829-5116 for Your Dog and ask for the special introductory rate of $20. (Or, send your request and check to Subscription Services, P.O. Box 420234, Palm Coast, FL 32142.) Ask for department 86DTVM.
As human and animal habitats collide, scientists and ethicists face the difficult task of finding new ways for these populations to coexist. Cummings School faculty brought these controversial issues to the table in a debate that asked hard questions, looked at all sides, and engaged students and experts in seeking new solutions.
Participants in a recent day of discus-
sions on wildlife and public policy at the Tufts Center for the Study of Animals and Public Policy (CFA), kept returning to this question. The day started with a guest lecture in the Masters in Animals and Public Policy program and ended with a roundtable discussion among a diverse group of researchers and clinicians [see sidebar]. The question is how humans think about other animals, how we react to human-animal conflict, and how we balance divergent interests and world views.

Like Marbles in a Bag

Those who set wildlife management policy typically align themselves with the hunting community: people who think of wildlife as prey. And that’s as it should be, notes Jan Dizard, Ph.D., Charles Hamilton Houston Professor in American Culture and Sociology at Amherst College. Dizard, an avid hunter, asserts, “For the past 13,000 years, at least in North America, people have been natural predators of animals. To remove that is to remove part of the equation.” Dizard explains to public policy stu-
dents that the North American view of the game is “it belongs to the people and not the elite, as in Europe—a deliberate push by early colonists.” Hence big limits and off seasons to ensure democratic access to species such as the once scarce but now supernaturally abundant white-tailed deer.

One pitfall of linking wildlife manage-
ment to hunting, suggests Allen Rutberg, Ph.D., research assistant professor at the CFA, is that wildlife policy tends to reflect hunters’ view of animals as a population with interchangeable members, ignoring animals’ individual traits and life histories. Rutberg, whose background is in animal behavior, cites as an example the resistance of wildlife managers to the reality that female deer form social communities—standard among wild animals. Rutberg states that ignoring this, he adds, because it interferes uncomfortable with the notion that deer are “like marbles in a bag, and each year you pull out so many.”

Pet-Like or Pest?

Most people, on the other hand, typically do see animals as individuals, with personality and purposeful behavior. What starts with our pets extends to the wildlife we observe in our backyards: generally the same animals in the same species. With this in mind, assistant professor and assistant director for graduate education at the CFA, notes that scientists and ethicists increasingly recognize the importance of animal personality, social-
ity, and culture. In wolves, for example, individual personality and social relations play a large role in the survival of the pack. Dizard admits to seeing individualities in his pet dogs, yet maintains that “as a matter of prac-
ticality, we have to think in species terms about white-tailed deer.” This means making tough calls about managing their ubiquity in back yards and suburban malls that, to his chagrin, encroach on wildlife and hunting habitat. He acknowledges, however, that the rapid development of places in which no deer hunting has made lethal control less and less useful, which means that the division between hunters and animal protectionists is not doing wildlife any favors.

Rifles also occur when people’s personal relationships with wildlife lead to devotion in the extreme. Some, for example, will risk jail in order to keep feeding deer. This leads to conflicts with people who are fed up with them—some of whom are former devotees. Rutberg deplores the fact that, where he lives, increasing numbers of people once thrilled to see a beaver in a pond and hear the slap of its tail “are not thrilled anymore. They’re shoot-
ing them without permits and throwing them in the landfill with no regard for the beaver or the ecological services it provides.” Rutberg makes the same fate possible for any animal, wherever “instead of its being a resource filled with wonder, it’s seen as a damn nuisance.”

To Kill or Not to Kill?

Divisions over our views of animals spill over to debates about how to manage our conflicts with them. In their discussion with Dizard over lethal versus nonlethal (specifically contraceptive) methods of wildlife management, Rutberg and his public policy students focused on effectiveness and natu-
ralness. In species terms, Rutberg maintains that contraception does nothing to reduce current population. Rutberg refutes this by explaining how population biology works over the course of a year, deer naturally die for one reason or another.


Jan Dizard, Ph.D., is Charles Hamilton Houston Professor in American Culture and Sociology at Amherst College, and adjunct faculty at the CFA. His research interests include changes in people’s perceptions of and attitudes toward nature, and their effects on environmental poli-
cy. He is the author of MortalStakes: Hunters and Hunting in Contemporary America.

Jennifer Jackman, Ph.D., M.S., V.D., teaches courses on American government at Western State College and ‘Animal Protection as a Social Movement’ for Duquesne University and Humane Society University. She recently completed a survey of attitudes towards coyotes in Barnstable County, MA. She serves on the Spencer Conservation Commission.

William S. Lynn, Ph.D., is assistant professor and assistant director for graduate education at the CFA. He writes and speaks on animal welfare, wildlife conservation, and the enviro-
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Florina Tseng, DVM, is assistant professor of Environmental and Population Health and assistant director of the Wildlife Clinic. A clini-
cian, she specializes in wildlife medicine and works with seabirds and works with seabirds and works with seabirds and works with seabirds. She serves on the Seabird Ecological Assessment Network (SEANET), a collaborative effort to assess seabird population health on the eastern seaboard.

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Participants to the right (left to right) William Lynn, Ph.D., Florina Tseng, DVM, Jan Dizard, Ph.D., and Allen Rutberg discuss the thorny issues that surround animal population control.

A Roundtable Discussion

Participants in the roundtable discussion held under the auspices of the Tufts Center for Animals and Public Policy (CFA):

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Participants (left to right) William Lynn, Ph.D., Florina Tseng, DVM, Jan Dizard, Ph.D., and Allen Rutberg discuss the thorny issues that surround animal population control.
that encourage residents to keep pets inside. And what about feeding birds? With sheepish grins, most people around the table admit they do, but know they shouldn’t. Tseng delivers a gentle lecture on, among other things, the risk of salmonella with bird feeders, but admits “they’re wonderful to watch.” Rutberg wonders if there’s a way—through education—to harness the good impulses of people who insist on feeding wild animals, and redirect them towards the greater good of wildlife.

A NEW MODEL OF COEXISTENCE?

Lynn sees a critical role for wildlife management—not as managing wildlife, but as managing our relationships to wildlife as we keep encroaching on their habitat. He believes that educating people, and giving them incentives to do the right thing, is a better solution than controlling the animals. And he resists the idea of segregating wildlife from humans in reserves and parks. Having grown up in northern Ontario “where we routinely live with very large mammals in abundance,” he advocates a model of “deep sustainability,” using both science and ethics to teach humans to coexist with wildlife without adversely affecting it.

Tseng agrees, but wonders how that model would sustain populations of smaller species with very specific habitat needs. Jackman and Rutberg are politely skeptical, believing that it places a lot of trust on both animals and humans to behave properly. Dizard is characteristic direct: “Deep penetration, Bill, I think is asking for deep trouble. Deeply ingrained habits and ways of life make living with certain kinds of wildlife species very difficult. It’s not just because people don’t like inconveniences. It brings into the fore sharply differing world views of the value of nature and the relationship between the human species and others.”

WHERE DO WE GO FROM HERE?

Almost despite themselves, participants begin to shape a general direction as they discuss possibilities, consequences, and trade-offs. Some level of coexistence seems reasonable in a system that includes large reserves as well as areas accommodating humans and wild creatures alike. Both non-lethal and lethal measures to reduce conflicts need to be considered. Though many decisions will be tough—and unpopular—they must be individualized and situational, taking into account behavioral and ecological factors as well as matters of public safety and health. And substantial public education, both science- and ethics-based, is vital.

As he wraps up, Rutberg returns to Tseng’s question about translating academic discussions into policy. He calls out the fact that academics typically seek out differences among themselves so they can publish something distinctive. After the laughter of recognition dies down, he turns serious: “From a policy standpoint, we really have to be looking for common ground so that people who agree that bears and deer have intrinsic worth, or even some worth, can save what’s out there.”

THE GIFT IS IN THE GIVING

When Corina Kotidis of Framingham, Mass., turned six years old this December, she did not receive any toys or dolls or books. Instead, Kotidis asked friends and family who attended her birthday party to donate funds to the Wildlife Clinic at Cummings School of Veterinary Medicine at Tufts University.

She then delighted Tufts veterinarians with a $430 donation. When asked why she chose to support Tufts, Kotidis said simply, “I like animals.” Quite an understatement, considering that Kotidis and her family own 19 animals, including dogs, hamsters, guinea pigs, birds, chinchillas, fire bellies, gerbils, fish, and a rabbit.

“I just think it’s wonderful in today’s world when people are not just thinking about themselves, but are trying to help other people or animals in need,” said Dr. Mark Pokras, V84, director of the Tufts Wildlife Clinic. “We can definitely use Corina’s donation to help animals in our clinic."

Corinna’s mother, Dr. Nina Balodimos, said she and her daughters have attended the Cummings School annual open house in Grafton for many years. “We are impressed with all of the veterinary care Tufts is providing...
THE PROGRAM’S PRIMARY OBJECTIVE IS TO PROMOTE SUSTAINABLE LIVELIHOODS AND HEALTHY ENVIRONMENTS IN INTERNATIONAL COMMUNITIES, AND TO PROVIDE AN INTERNATIONAL EDUCATION TO VETERINARY STUDENTS.

Ask someone to craft a global health “dream team,” and they’ll bring to the table professionals in medicine, public health, nutrition, biocultural sciences, epidemiology, and international and public policy. Until recently, a doctor of veterinary medicine would have been excluded from that assemblage—or perhaps invited as an afterthought. But that’s rapidly beginning to change, given that three-quarters of all emerging human diseases are zoonotic, or transmitted to humans from animals.

CROSSING THE BOUNDARIES “Veterinarians absolutely play a crucial role,” explains Jonathan Epstein, DVM/MPH02. Epstein is a research scientist with the Consortium for Conservation Medicine (CCM), which consists of the Cummings School, Johns Hopkins Bloomberg School of Public Health, and the U.S. Geological Survey’s National Wildlife Health Center and Wildlife Trust. “Veterinarians can get a grip on how these diseases work in their natural reservoirs,” he says, “and understand how the interaction between humans and animals leads to the transmission of these pathogens into humans.” He reports that the Centers for Disease Control are developing an animal health section and have begun to hire veterinarians to lead initiatives. Multidisciplinary collaborations in global health, he notes, are being driven by the National Institutes of Health (NIH) and other funding bodies, bringing to the same table researchers who traditionally have worked separately on the same problem.

Doing so is precisely the aim of the $375,000 grant awarded by NIH to Dr. Jeffrey K. Griffiths, director of global health and associate professor of public health and nutrition, biomedical sciences, epidemiology, and international and public policy. Until recently, a doctor of veterinary medicine (he was the first) was likely to create new problems. The Consortium for Conservation Medicine (CCM), Dr. Jonathan Epstein, DVM/MPH02, was a member of the international team that identified the horseshoe bat as the reservoir of the deadly SARS virus that struck southern China in 2003.

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THE INTERNATIONAL VETERINARY PERSPECTIVE Epstein knows well about building such bridges. As one of only two veterinary students in his public health program, he was always seizing opportunities to offer perspectives his classmates hadn’t considered. And because he was also fulfilling the requirements for a certificate in international veterinary medicine (he was the first veterinary graduate to do so), his insights carried a global slant. Since Epstein, eleven other graduates have received the certificate, and more than 150 students have worked on research projects in over 25 countries since the International Veterinary Medicine Program was launched in 1981. The program’s primary objective is to promote sustainable livelihoods and healthy environments in international communities, and to provide an international education to veterinary students. The original impetus for the program came early in the school’s history from veterinary faculty who arrived at the school anxious to do research that would raise the human standard of living through animal health. Dr. George Saperstein, assistant dean for research in environmental and population health, explains, “Many came with a strong background in development, and recognized that especially in agrarian societies, the standard of living depends on agricultural and livestock production.” In 1981 the veterinary school received a major grant for what would become the Niger Integrated Livestock Program, a joint project with the Fletcher School of Law and Diplomacy that “put us on the map,” says Saperstein.

POPULATION HEALTH AS CONSENSUS One of the first Tufts veterinary students to work on the Niger project was Dr. JoAnn Lindemayer, V85, associate professor of environmental and population health. After spending three years in the Peace Corps in Senegal, “northern Africa,” she entered the veterinary school knowing she wanted to care for animals in developing countries. In her first year, she helped write the Niger proposal. “When we got the grant, I said, ‘That’s it, I’m going there in my fourth year. I did that by collapsing all my externships into a three-month period.”’ There she saw the degree to which the health of animals determines the health of human populations. The experience convinced Lindemayer that a master’s degree in public health would give her the additional skills she needed to make an impact on improving what she terms “population health, or the interaction of animal and human health that maximizes the health of both populations. That involves some level of risk and a certain amount of consensus.”

A self-described “public health veterinarian,” Lindemayer serves as a liaison to the DVM/MPH program and is director of a public health core course in the veterinary curriculum. She sees the course as a way to encourage veterinary students to “become invested in the major role we play, and act on that conviction.” She also numbers among those who would encourage the university as a whole to build on the Cummings School’s achievements in global health. To that end, she sees Griffiths’ proposal to create a central repository of Tufts faculty involved in global health issues as “wonderful. It’s simple and it’s elegant. I can’t think of anything else that could unite the university in a better way.”

Griffiths is gratified to see that his efforts have catalyzed a new interest throughout the university in pulling resources together, not just for research but also for teaching. “If we can come up with a robust, global strategy, my students will take advantage of them, even crossing over into other schools. I see this grant as greasing the wheel.”

DANGEROUS INTERSECTION In Malaysia in 1999, pig farm workers contracted an encephalitis disease, fatal in 49% of reported cases, caused by the Nipah virus. The host is several species of the wild fruit bat belonging to a genus whose range extends from Madagascar eastwards through South and Southeast Asia to the South Pacific islands.

If public health and wildlife management officials had responded by killing a large population of fruit bats, they would have unwittingly set into motion an ecological imbalance likely to create new problems. The Consortium for Conservation Medicine (CCM), of which the Cummings School is a member, instead went beyond the human angle. As team members took into account domestic animal, wildlife, and conservation viewpoints, they considered the ways animals behave in their normal habitat and how disease spreads among them, piecing together an interlocking chain. Farmers had planted fruit orchards so closely to a pig farm that branches hung over the pen. Fruit bats carrying Nipah virus fed on the fruit. As they ate, chewed-up pieces holding bat saliva fell into the pens. The pigs ate the fruit and most likely bits and pieces of other things containing infected bat urine or feces. Thousands picked up the virus, developed a lethal respiratory infection, and began to cough, spewing virus infected droplets into the air. Pig farm workers breathed in the droplets and contracted the disease.

By pinpointing the true source of the problem, CCM’s animal-based multidisciplinary approach allowed them to see their way to an intervention that wouldn’t involve exterminating an ecologically important population of bats. “Nine out of ten times it’s human activities that promote the transmission of pathogens from natural reservoirs into humans,” explains Jonathan Epstein, DVM/MPH02, a veterinary epidemiologist with CCM. “Whether it’s wildlife trade that brings animals from all over into a market setting, or global trade and agricultural expansion—all of that brings us closer to wildlife in a way that these diseases can then spill over to us.” For him, this means that the best interventions are those in which we humans look at our own behavior, get smarter about how we interact with wildlife, and curtail our culpable activities the best we can. In Malaysia, the intervention turned out to be simple: eliminate the infected pigs and cut down the fruit trees. The result? No more outbreaks since 1999.
In July 1979, Elizabeth Kaufman, 73, of South Thomaston, Maine, was reading her local newspaper when she came across an article about Tufts University’s recent establish-ment of a veterinary school in Grafton. Having just lost her faithful and loving companion, a longhaired dachshund named Hansi, she was eager to support the school. A few months later, she gave a modest but meaningful gift to the veterinary school in support of student scholarships, establishing the Elizabeth H. Kaufman Scholarship Fund. It was the first endowed scholarship at the fledgling school.

As the years went by, Kaufman added to the scholarship endowment periodically, finally capping it up in her will. Kaufman’s motivation to give so many gifts after the initial one was the result of the deep and meaningful friendships she developed with the administration at the Cummings School. She also took great pleasure in learning about the scholarship recipients, visiting the campus, and attending commencements.

What originally began as a small gift inspired by her love for animals and respect for veterinarians, has grown to become a significant scholarship fund that now benefits several Cummings students every year. Kaufman’s daughter, Pleasure Crawford, has taken over watch of the scholarship fund since her mother’s passing in 1998. Of her mother’s scholarship, she says, “The lesson to anyone thinking of giving a gift is that you can start small, and it can grow to become something very important.”

One of this year’s scholarship recipients, Kavishti A. Kokaram, V07, who studies veterinary medicine, has a special appreciation for the scholarship because she knew it would always be in the back of her mind, but it wasn’t until she entered her senior year at Tufts that she came to understand what it meant.

Kokaram, who was an aspiring marine biologist, states, “I chose Cummings School because it was a hard school to get into,” and she wanted a challenge. She also appreciated that the school has a rotation in wildlife, “Cummings is the only school that has an entire wildlife staff. It’s unique.”

Kaufman never underestimated the bond that individuals have with their pets, and in turn truly appreciated the veterinary profession. She witnessed first hand the reality that veterinarians do more than help keep animals healthy and happy; one of them being that the patient can’t tell you what’s wrong.”

Kokaram also believes the scholarship reflects Tufts’ biggest strength—its community. “Tufts has a very close-knit community. Professors are friendly and accessible; I will never feel like I am just a number.” It was this same sense of community that inspired Kaufman to keep giving throughout her lifetime.

Kristina (Kris) Delakis V07, another scholarship recipient, expresses similar appreciation: “This scholarship has meant a great deal to me. It’s a real honor to be chosen,” she says. “Growing up in Wisconsin, I also knew I wanted to be a vet. When I was a little girl, all I wanted to do was go to the zoo. I could watch animals for hours. When I graduate from the Cummings School, I look forward to eventually working in a zoo setting.”

Delakis, who studies zoo medicine, wildlife and exotic animals, was attracted to Tufts because it was “a hard school to get into,” and she wanted a challenge. She also appreciates that the school has a rotation in wildlife. “Cummings is the only school that has an entire wildlife staff. It’s unique.”

The Charles Tufts Society, named after the man whose gift of 20 acres of land in Medford, Mass., led to the creation of Tufts University, honors friends and alumni who have included Tufts in their estate plans through bequest provisions, charitable trusts, annuities, and other arrangements. The society includes many supporters of the Cummings School of Veterinary Medicine.

Members of the Charles Tufts Society are invited to special events on the Cummings School’s Grafton campus and to an annual luncheon hosted by President Bacow on the Medford campus.

Tufts University is deeply grateful to the individuals listed below, members of the Charles Tufts Society whose ultimate philanthropic gifts will strengthen the Cummings School of Veterinary Medicine for future generations. Their vision and generosity, linking their legacies to the school’s mission, demonstrate their respect for the current work of the Cummings School and their confidence in what will come.

Therese Arcolito
Barbara A. Balbach, Ph.D.
Christopher A. Balestra
and Richard P. Smith*
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Marcia D. Bellermann
Janet S. Birnie
Sue and David Bloom
Bonnie Boyd
Lillian Boyd
Martha H. Briscoe
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Patti and Jeffrey E. Tautenhahn
Natalie C. Tenney
Shirley Thomas
Cecile Trigila
Maudette and Raymond Wallau, A50
Los Wilkinson and Michael G. Kane
Florance T. Wildner
Anonymous Alumni (2)
Anonymous Friends (22)
* Deceased

* Honorary Member

Members of the Charles Tufts Society are invited to special events on the Cummings School’s Grafton campus and to an annual luncheon hosted by President Bacow on the Medford campus. Tufts University is deeply grateful to the individuals listed below, members of the Charles Tufts Society whose ultimate philanthropic gifts will strengthen the Cummings School of Veterinary Medicine for future generations. Their vision and generosity, linking their legacies to the school’s mission, demonstrate their respect for the current work of the Cummings School and their confidence in what will come. In 2006, Ms. Kaufman was invited to join the Cummings School’s Charles Tufts Society for her contributions to the School. She was a Charter Member in 2006 and was honored for her contributions to Tufts.

The Cummings School of Veterinary Medicine gratefully acknowledges the generous gifts of the Charles Tufts Society for their support of the School and its mission. These gifts have enabled the School to expand its research and educational programs, and to attract the best and brightest students.

Members of the Charles Tufts Society are invited to special events on the Cummings School’s Grafton campus and to an annual luncheon hosted by President Bacow on the Medford campus. Members of the Charles Tufts Society are invited to special events on the Cummings School’s Grafton campus and to an annual luncheon hosted by President Bacow on the Medford campus. Members of the Charles Tufts Society are invited to special events on the Cummings School’s Grafton campus and to an annual luncheon hosted by President Bacow on the Medford campus. Members of the Charles Tufts Society are invited to special events on the Cummings School’s Grafton campus and to an annual luncheon hosted by President Bacow on the Medford campus. Members of the Charles Tufts Society are invited to special events on the Cummings School’s Grafton campus and to an annual luncheon hosted by President Bacow on the Medford campus. Members of the Charles Tufts Society are invited to special events on the Cummings School’s Grafton campus and to an annual luncheon hosted by President Bacow on the Medford campus.
When Si Si (left) bolted from her yard head on into an oncoming car, the consequences could have been dire. But fate and fast-action worked in concert to get Si Si the help he needed at the intensive care unit at the Cummings School’s Foster Hospital for Small Animals. See page 6 for the whole story.

OPEN HOUSE: SAVE THE DATE

Join thousands from around New England at the Cummings School of Veterinary Medicine’s 17th Annual Open House on Sat., Sept. 9 from 10 a.m. to 3 p.m.—rain or shine. Located at 200 Westboro Road (Rte. 30) in North Grafton, Mass., the school is offering obedience, police and assistance canine demonstrations, breed rescue exhibitions, animal health care exhibits, tours and demonstrations in Tufts’ animal hospitals, and fun activities for the kids.