TUFTS UNIVERSITY

# Veterinary World

SPRING 1997

Photo by Dietrich C. Gehring

*Dr. Nicholas Dodman is rapidly becoming one of the nation's leading experts in the burgeoning field of animal behavior.*

## Pet Psychiatrist

### NICHOLAS DODMAN PROVES ANIMAL BEHAVIOR IS MORE THAN 'SIT, HEEL OR STAY'

Rosebud, a great big fluffy Old English sheep dog, had a problem. She was territorial and aggressive with visitors to her owner's photography studio in Boston. Not able to stay home alone, Rosebud went with her owner to work, where she promptly misbehaved, barked and charged at clients in the studio.

She ended up at the office of Dr. Nicholas Dodman, director of the Animal Behavior Clinic at Tufts University School of Veterinary Medicine.

"Rosebud was getting progressively worse, so we decided to try something new," said Dodman, who is researching the effect of dietary protein on animal behavior, including aggression and hyperactivity. For a week at a time, Rosebud was put on three diets — with high, medium and low protein levels.

On the medium-protein diet, she was much the same. "But on the low-protein diet," Dodman said, "the owner told me that Rosebud showed dramatic improvement and was very well behaved. She was amazed." On the high-protein diet, Rosebud regressed completely to the point where she tried to bite someone on the street during a walk.

*(See BEHAVIORIST, page 8)*

## FIELD WORK

*Dr. Steven Rowell, V83, below, director of Tufts' Veterinary Diagnostic Laboratory (TVDL), holds a fish-meal bait containing an oral rabies vaccine — the product of a School of Veterinary Medicine project, which for three years, has prevented the spread of rabies to Cape Cod. TVDL also plays a crucial role in public health issues in Massachusetts.*

Story begins on page 6.

Photo by Dietrich C. Gehring

## WHAT'S INSIDE

# MESSAGE FROM THE DEAN

by Philip C. Kosch

## TUFTS WILL LEAD, INNOVATE AND CREATE

My message in the previous issue of *Veterinary World* was titled "Unifying the Family in North Grafton." I am pleased to report that the planning committee has made excellent progress with the architect and that we have raised approximately $1 million in private donations for constructing the anatomy laboratory/education center that will unify our professional degree program on the Grafton campus. The project will be a reality in the next couple of years if we meet our fund-raising goal in the next year. This is my highest priority.

On a more personal note, I have finally unified my own family! My wife, Janene, and our two cockers, Buffy and Daisy, joined me on March 24. We live in temporary digs in Worcester while a new home will be under construction this summer in Shrewsbury. We are together at last!

I have some great news about Commencement on May 18. I am delighted to announce that our commencement speaker will be Dr. Peter Doherty, the first veterinarian to win the Nobel Prize in Medicine (1996). This capstone event for the Class of 1997 will be filmed by the PBS program "NOVA" as producers complete a year-long project that followed some of our students through their last year of veterinary medical education. The show is scheduled to air sometime this fall.

After careful analysis and discussion, I have completed a plan for a new administrative structure that becomes effective July 1. The main element is a reorganization of academic departments. The great majority of Tufts School of Veterinary Medicine faculty will have their appointments in just three departments within the school (a few will remain in tenured appointments in the shared health sciences departments on the Boston campus). A new Department of Biomedical Sciences represents the consolidation of four departments that have 25 full-time faculty. A new Department of Environmental and Population Health represents the consolidation of three departments with 18 full-time faculty. A new Department of Clinical Sciences will include 29 full-time faculty, all with clinical responsibilities in the Henry and Lois Foster Hospital for Small Animals and/or the Hospital for Large Animals.

It is my hope that this reorganization will result in new ideas and synergy and will position the school well for the opportunities ahead. We will be taking a careful look at new initiatives in clinical education, service delivery, graduate education and further program development in the environment and other areas. Stay tuned as we move forward with confidence. Tufts University School of Veterinary Medicine will continue to lead through creativity and innovation.

Phil Kosch

## PHARMACEUTICAL EXEC APPOINTED OVERSEER

Agnes Varis, founder and president of Agvar Chemicals Inc., a New Jersey-based pharmaceutical chemicals distributor, has been appointed to Tufts University's Board of Overseers for Veterinary Medicine.

Tufts' overseers are national and international leaders from business, academia and other fields who provide assistance and guidance to the university's president and Board of Trustees. Their direction to the university community in their distinct areas of focus influences Tufts' advances in curricula and research. The overseers' support has helped Tufts maintain its "most competitive" admissions standards, garner research funds from foundations and government and secure a ranking among the top tier of American universities.

Varis founded Agvar in 1969. She is an active spokesperson on issues facing the generic pharmaceuticals industry and serves as a member on the board of directors of the Generic Pharmaceuticals Industry Association as well as a director of Copley Pharmaceuticals Inc. She is also a member of the Leadership Committee of the Lincoln Center Consolidated Corporate Foundation.

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# This M.D. wants to be a D.V.M.

Photo by Brian DelGiudice

*Timothy Knight, V99, examines Chris, a Doberman pinscher. Note Knight's multi-layered approach to dressing. He says he's down to three or four layers since leaving Hawaii two years ago.*

Editor's note: After 15 years of practicing dermatology in Hawaii, Dr. Timothy Knight was looking for a change. He wasn't necessarily interested in changing his medical discipline, but he wanted to include other species. Next stop: Tufts School of Veterinary Medicine. Knight, who graduated from the University of Missouri School of Medicine and completed a residency in dermatology in 1979 at the University of Maryland, is a member of the veterinary school's Class of 1999.

**Q: What possessed you to leave paradise for New England winters and four years of veterinary training?**

Knight: A lot of people ask me that, and I just tell them that I go where the opportunities are. Tufts is a prestigious private university that offers many opportunities. Don't get me wrong. Hawaii is beautiful. I practiced there for 15 years. I had been to Hawaii several years earlier while I was in the Army and wanted to return. It was fantastic, but it was time for a change and time for new challenges. I'm from St. Louis, so I'll get used to the New England winters. I'm already down to three layers of clothes now.

**Q: Why the change to animals?**
Knight: Well, animals have been my best friends for many years, and there is something very appealing about being able to diagnose and treat any species that walks through the door.

**Q: What impresses you most about Tufts?**
Knight: The faculty. They're the best. They continually impress me with their expertise and knowledge. They are so well known, and yet they are relatively young, which says a lot for the future of the school. Second, my classmates. They are so bright, talented and full of potential. It's a joyful struggle to try and keep up with them.

**Q: What is a typical day like for a second-year veterinary student.**
Knight: Sitting through lectures. And a couple of afternoons I might go to the clinics and work with Dr. Gene Nesbitt [consultant in veterinary dermatology]. Or I'll go to pathology and look at biopsy slides with Dr. Steve Engler [assistant professor of pathology]. We have 16 courses this semester and 19 examinations. I'll tell you, the fun never stops!

**Q: What's the difference between medical school and veterinary school?**
Knight: Well, in many ways, veterinary school is harder. The work is so voluminous and detailed, in part because there are so many species to learn. Medical school is two years of basic sciences and then two years of clinical training on the wards. Here it's three years of sciences and one in clinics. Also, keep in mind that in human medicine, internships and residency programs are the norm, but in veterinary medicine, most graduates will go right out into the field. Competition for formal veterinary residency programs is extremely tight because there aren't many openings. So this is really the only time many of us will have formal access to this level of expertise. For that reason, many students will go directly into large practices with good mentor programs where they can still learn but be supervised. Overall, the veterinary medical education a student receives at Tufts is certainly comparable — and often superior — to human medical education.

**Q: Who has had an impact on you here at Tufts?**
Knight: Many people. I'll give you an example. I remember our orientation two years ago. We were all green recruits, not really knowing anything. And Dr. Sawkat Anwer, who was interim dean at the time, told us: "What we expect from you is that you make a difference." And he really meant that; it came from his heart. I think that's the philosophy in a nutshell here at Tufts. It's just exactly what I want to do in my veterinary career. Make a difference.

# BRIEFLY

## A FELINE TIP

If your tabby has fleas, check out these tips from a recent issue of Tufts' newsletter, *Catnip*.

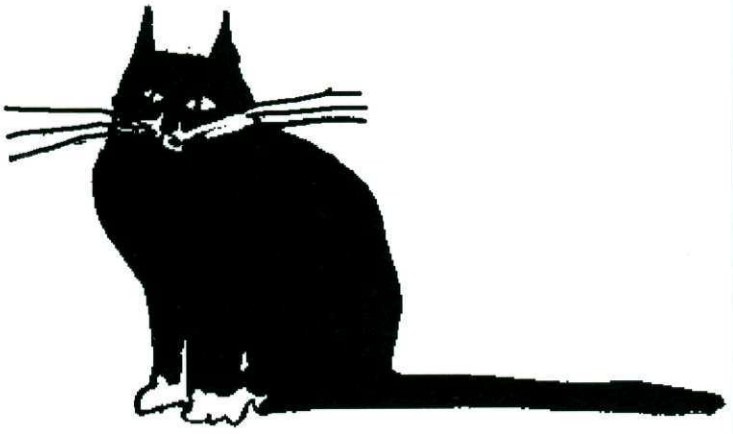
• Treat both the cat *and* its environment. Fleas spend most of their life cycle living on your cat. Although the female lays her eggs on your cat, most of the eggs scatter and end up in the cat's favorite catnap spots. The larvae that emerge are sensitive to heat, humidity and light, so they migrate to protected areas — like the carpet — where they develop within protective cocoons. After finishing its development, the adult flea emerges when it senses the proximity of a host animal. Once on board, the female flea feeds, mates and begins producing eggs. At any given time, adult fleas on your pet account for only 5 percent of the total flea population in the environment.

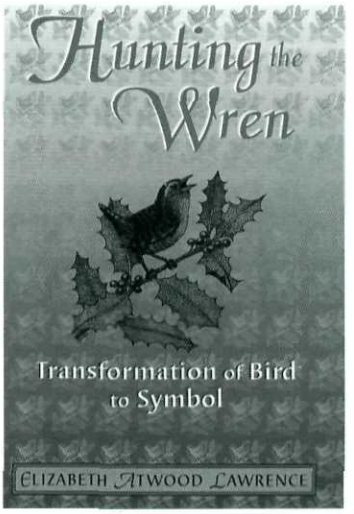
• Because 95 percent of the flea population in your house is composed of developing fleas, use insecticides that kill adult fleas and insecticides that contain either an insect-growth or an insect-development inhibitor. These products interrupt the life cycle of the flea and prevent the eggs and larvae from developing into adult fleas.

• Treat your cat and your home with products that specifically state they are safe for use on and around cats. Look for products that have been approved by the U.S. Food and Drug Administration and the Environmental Protection Agency. Follow directions on the label; most problems with these products occur because owners do not follow the directions. If after administering a flea product, you see your cat salivating excessively, breathing with difficulty or having muscle spasms or seizures, immediately contact your veterinarian or the 24-hour National Animal Poison Control Center (NAPCC) at (800) 548-2423. The NAPCC charges $30 per case, so have your credit card handy.

• Don't waste time with products that don't work. Ultrasonic collars, garlic and brewer's yeast are not effective against fleas.

For *Catnip* subscriptions, call (800) 829-0926.






### Books: *Hunting the Wren* by Elizabeth Atwood Lawrence

An interdisciplinary study, *Hunting the Wren* examines the British and European tradition of the wren hunt, in which a bird that ordinarily was revered and protected for most of the year was killed around the time of the annual winter solstice. In focusing on this ancient ritual, Dr. Elizabeth Atwood Lawrence, professor of anthropology and veterinary medicine in Tufts School of Veterinary Medicine's Department of Environmental Studies, casts a fresh light on the complexities of human-animal relationships.

After introducing readers to animal symbolism, Lawrence describes the wren as a biological entity and as the subject of numerous tales and legends. She describes the wren hunt ceremony and the various meanings ascribed to it. And finally, she relates the ceremony to important contemporary issues in human-animal interactions and current attitudes toward the environment. Whereas most other studies tend to concentrate solely on human perceptions of animals and fail to include the animal's role in the relationship, Lawrence's approach shows how the participation of both animal and human determines the symbolic status of the animal — which in turn influences the treatment of that animal within a particular society.

At a time when human destructiveness toward nature has reached tragic proportions, Lawrence contends, it is critical to understand the processes by which cultural beliefs, in combination with observations about the natural history of a particular animal, result in emotional and mental responses that ultimately may determine the fate of that species. Lawrence argues persuasively that the wren hunt — with its ancient roots, associated beliefs and complex meanings in the pre-industrialized world — still has much to teach us.

*Hunting the Wren* is published by the University of Tennessee Press.

### Doggy honors

Dr. Nicholas Dodman's *The Dog Who Loved Too Much: Tales, Treatments, and the Psychology of Dogs* has been awarded the 1996 Maxwell Medallion for best book from the Dog Writers' Association of America. Dodman's book is popular with the public and media; he has appeared on national television programs, including ABC's "20/20," NBC's "Today," "Oprah" and "America's Health Network."

The book, published by Bantam Books, is now out in paperback.

## A record breaker!

The School of Veterinary Medicine has received a record-breaking 709 applications this year for the 80 slots in the Class of 2001.

"These admissions figures reflect well on a number of programs we have in place," Dean Philip C. Kosch said. "Our admissions office is doing its job well; our alumni are having a presence in their communities, and our communications office is effectively spreading the word about the excellent opportunities available to students at Tufts."

## Perfect pictures

There's more to taking the perfect doggy photo than point and shoot, according to Tufts' newsletter *Your Dog*. Follow these tips for creating great canine "photo ops."

- Have an assistant get your dog's attention by holding a favorite toy or food while you compose the shot.
- Shoot at your dog's level or put the pooch on a platform at camera level. When using a flash, however, position the camera slightly above your subject to minimize background shadows.
- To reduce "red-eye," separate the flash unit from the camera body with a flash bracket. Or snap when your dog is not looking directly at the camera.
- Fill the frame with the dog by getting close to it or using a longer lens.
- For a dynamic photo, snap the dog from an angle.
- When shooting outside, use a low flash setting to lighten the shadows and make your dog's eyes sparkle.

For *Your Dog* subscriptions, call (800) 829-5116.

## WILD BABIES IN THE BACK YARD

Each spring, flocks of winter-weary people journey outdoors to enjoy the warm weather. Many will find baby animals scurrying across the grass or chirping under a tree and — with all humane intentions — believe the animals are orphaned. So they "rescue" the babies, inadvertently preventing the animals' parents from caring for their young.

"People usually find baby birds or mammals during spring and summer," said Dr. Mark Pokras, director of the Wildlife Clinic at Tufts School of Veterinary Medicine. "We get dozens of calls from people asking how they can help the animals. But what they don't realize is that generally, the babies were exactly where they were supposed to be, doing exactly what they were supposed to be doing and didn't need to be rescued."

Many times children find fledgling birds darting across the lawn or huddling under the shrubs. These babies have graduated from their naked, nestling stage and are now partially feathered. They either jump or fall from the nest during flight training.

"If little Sally or Sam finds a baby bird on the ground and brings it into the house, parents can explain to the child that the baby is fine and will spend some time on the ground before it can fly. Its mother is watching it and will feed the fledgling on the ground until it can fly in a few days," Pokras said. "The right thing to do is to take the baby back outside so the parents can


Illustration by Dave Granlund

take care of it. Then watch and enjoy the baby from a distance, far enough away so the parents don't see you as a threat."

Spring is a season when many homeowners clean up, perhaps removing that rotting tree stump in the back yard. But there may be baby squirrels or song birds nesting in the hollow of that stump. "By removing what many owners see as an eyesore, they may actually render these animals homeless, helpless or injured," Pokras said. It's wise to check first, if possible. Better yet, wait until after baby season, during fall, to remove the rotting tree or stump. Or leave the stump alone and provide a home for wild families, whose habitat dwindles every year.

If you do find an injured wild baby, call your state wildlife agency. State wildlife agencies license wildlife rehabilitators and can direct you to qualified rehabilitators or wildlife veterinarians in your area.

*Dr. Andrew Rowan*

## Humane award

Dr. Andrew Rowan, director of Tufts' Center for Animals and Public Policy, was awarded the sixth annual Russell and Burch Award for outstanding contributions to the advancement of alternatives to the use of animals in research, testing or education.

Prince Laurent of Belgium presented Rowan with the award on behalf of the Humane Society of the United States (HSUS) at the second World Congress on Alternatives in the Life Sciences held in Utrecht, the Netherlands.

Dr. Martin Stephens, HSUS vice president for animal research, said that HSUS selected Rowan because of his tireless efforts in promoting alternatives internationally through his writings, presentations and conference-organizing.

The award is named in honor of William M. Russell and Rex L. Burch, two scientists who first articulated the Three Rs of the alternative approach: *replacing* animals with substitutes such as computer models, *reducing* the number of animal subjects and *refining* experiments so that animals experience less pain and suffering.

# LAB PARTNERS

## TVDL SERVES AS MASSACHUSETTS PUBLIC HEALTH WATCHDOG

Dr. Steve Rowell, V83, director of Tufts' Veterinary Diagnostic Laboratory, noticed something odd this winter. Too many tests were coming back positive for canine leptospirosis, a bacterial infection that can cause kidney failure in dogs. The cases were occurring statewide.

"We think the outbreak was from the warm, wet fall and winter we had," Rowell said. "Many rivers overflowed their banks and washed the urine from infected rodents and dogs back into the rivers. Then non-infected dogs picked up the bacteria, perhaps from cuts on their feet. The concern was that the pets could then potentially pass the infection along to their owners because leptospirosis is a disease that can travel from animals to humans and vice versa."

Rowell notified Massachusetts public health veterinarian Dr. Mike McGuill, V91, and they produced a fact sheet to educate all Massachusetts veterinarians about the public health implications of leptospirosis.

"It's very helpful to have Steve Rowell and the Tufts Veterinary Diagnostic Laboratory (TVDL) here in Massachusetts," said McGuill. "TVDL has always been acutely aware of public health issues, particularly diseases that crop up in animals that may potentially threaten humans."

Rowell oversees a $4 million, 80-employee operation that serves as the veterinary disease monitoring and diagnostic arm for Massachusetts. The laboratory focuses primarily on testing for companion animal diseases and zoonotic diseases and helping biotechnology companies with their clinical studies.

"We operate the laboratory largely from fees from our clients — veterinarians, hospital clients and biotechnology companies. We collaborate with the Massachusetts Department of Public Health and other state agencies a great deal. We call them when we need information relating to human diseases; they call us when they need information on the animal side. It's win-win," Rowell said.

TVDL performs about 500 tests a day throughout the year, but in late spring and throughout the summer, the number jumps to more than 1,000 tests a day because of the heartworm season. "One of the reasons we have grown so much is because we can handle these procedures from soup to nuts for hundreds of veterinarians in New England. We pick up the sample, run the test and send back the results — all within 24 hours or less," Rowell said.


*Linda Forand, a technician at TVDL since 1979, sets up samples on an analyzer, which can perform chemistry profiles on all species.*

Rowell and Dr. Alison Robbins, V92, are also involved with perhaps the most impressive collaborative effort between Tufts and the Massachusetts Department of Public Health — the campaign to thwart the spread of rabies to Cape Cod. They are co-principal investigators on the rabies project at Tufts, which is funded by the public health department. They also sit on the state's Rabies Advisory Board.

The pilot project has successfully created an 80-square-mile "rabies vaccine zone" along the canal through the twice-annual distribution of 20,000 fish-meal baits containing a genetically engineered oral raccoon rabies vaccine. The effort generally is acknowledged as being responsible for keeping rabies from spreading to the Cape.

Photos by Dietrich C. Gehring

*Dr. Joyce Knoll retrieves a blood sample from TVDL's hematology analyzer, which counts red cells, white cells and platelets.*


*James Deberadinis, a certified medical technologist, demonstrates how to run susceptibility tests, which can identify different types of bacteria.*

*Cheryl Nicoll, a medical technology supervisor in TVDL's serology department, explains how she uses a heartworm testing kit.*

## BEHAVIORIST PARLAYS SCIENCE INTO SOLUTIONS FOR PET OWNERS

*(Continued from page 1)*

"So we put her on the low protein diet and she's fine today," Dodman said.

When owners bring their pets to Dodman, it is often an act of last resort. These animals aren't simply obedience school drop-outs; they generally have serious behavior problems, many of which are caused by chemical imbalances in the brain.

A board-certified veterinary behaviorist educated at Glasgow University in Scotland, Dodman's expertise is the biology of behavior. He is rapidly becoming the nation's leading veterinarian in the field. His 1996 book, *The Dog Who Loved Too Much,* probed the psychology of dogs and was a hit at bookstores and in the national media. This year, Dodman is following up with *The Cat Who Cried for Help*, a popular book on the psychology of cats, and *Veterinary Behavioral Pharmacology*, a textbook he edited with colleague Dr. Louis Shuster, professor of pharmacology at Tufts School of Medicine.

Because behavioral problems in animals — ranging from separation anxiety and aggression to depression and inappropriate elimination — are the number one cause of euthanasia in the country and claim millions of pets' lives per year, the field of animal behavior has burgeoned recently and accordingly, so has Dodman's clinic at Tufts' Henry and Lois Foster Hospital for Small Animals.

Dodman started Tufts' Animal Behavior Clinic on a part-time basis in 1989, while he was section head of anesthesia. He saw 300 or so clients each year for the first few years. Shortly after *The Boston Globe* profiled Dodman and the clinic in 1993 in an article titled "Fido Meets Freud," pet psychiatry — and Dodman's pharmaceutical and behavioral modification techniques — went mainstream.

"This is serious business here," said Dodman, also a professor of anesthesia at the veterinary school. "About 50 percent of my cases are on their last legs. Many people tell me, 'You are our last hope, Dr. Dodman. We don't know what else to do. We've been to our veterinarians and trainers, but the problem persists.' "

Dodman notes that veterinarians are becoming more aware that behavioral problems are treatable. "We diagnose the underlying problems, including medical problems that may contribute to the unacceptable behavior," said Dodman. "And the treatment is comprehensive, involving diet, exercise, obedience training, behavior modification and pharmacotherapy."

Photo by Dietrich C. Gehring

Dodman also occasionally consults for zoos and last year had the opportunity to help a pacing polar bear named Snowball at the Calgary Zoo in Canada. "I was the medicine man on a team of zoo officials, veterinarians, trainers and psychologists," Dodman said. With the help of the Wildlife Clinic at Tufts, Dodman was able to determine the correct dose range and recommended a low dose of Prozac. With that, the bear showed a 30 percent improvement. When the dose was gradually increased, the bear's pacing steadily decreased over 16 weeks until the condition was practically gone.

"We also had a cat recently with a very bizarre, almost-bewitched condition of feline hyperesthesia syndrome," he said. Cats with this condition have manic episodes. They hallucinate; their pupils widen; their skin twitches excessively, and they often have excessive bouts of grooming. They also sometimes manifest a peculiar paradox of enhanced affection followed by severe aggression. "They will walk up to you with their tails swishing," said Dodman, "but when you pick them up, they'll attack you."

After examining the cat and consulting with the owner, Dodman diagnosed the condition and prescribed Phenobarbital. "After some changes in dosages, I added a small dose of Prozac, and the behavior disappeared entirely," Dodman said. "The client just faxed me this week to report the cat is doing just fine."

Dodman and his resident, Dr. Jean DeNapoli, V93, see more than 1,000 cases a year, while Dodman's behavioral postdoctoral fellows, Drs. Alice Moon and Linda Aronson, V95, delve into the genetics and physiology of behavior.

"Some of the research we've done is really ground-breaking," Dodman said. "It's very exciting. There are times of true discovery. I have seen things unfold right before my eyes that were truly amazing."

Dodman prescribed an endorphin blocker for the first time in the late 1980s to a horse that had been cribbing, or compulsively chewing on a fence or the stall. "The horse just stopped cribbing and with no obvious side effects," he said. "To know that the behavior was driven by a neurochemical that was easily reversible was a moment of discovery. The client was so happy she hugged me because the horse had cribbed compulsively for its entire life."

Dodman collaborated on the original study of cribbing with Louis Shuster. The two scientists concluded that cribbing was due at least in part to an imbalance of morphine-like chemicals in the brain. The behavior could be induced by giving a horse morphine and could be stopped by giving the horse a morphine-blocker. Dodman and Shuster share a patent for the treatment.

"We gave the horse the medication on three different occasions, and the animal stopped cribbing each time," Dodman said. "It was like a miracle. And we have had other moments like that with other treatments.

"We've come a long way, but there's still more to go. I have all sorts of new ideas bouncing around my head all the time. All day, all night. Many times I'm up at 3:30 in the morning just thinking. It never stops."

**Jim Grisanzio**


Photo by Dietrich C. Gehring

*Dr. Katrin Hinrichs and her research team performed eight oocyte transfers, achieving pregnancies in six of those procedures.*

# Oocyte transfer

## A BREAKTHROUGH IN EQUINE REPRODUCTION

Equine veterinarians have long struggled with the problem of trying to breed valuable mares that are unable to conceive because of an assortment of problems, including chronic uterine infections, blockages and physical damage from previous births.

While artificial breeding techniques — such as *in vitro* fertilization — are successful in many species, they generally have been unsuccessful in horses. And embryo transfer — another common reproductive procedure for horses that can conceive but can't carry their own foals to term — still leaves out mares that can produce eggs but can't conceive.

A breakthrough alternative may change all that.

Equine veterinarians at Tufts School of Veterinary Medicine have successfully transferred the egg of a donor mare into a recipient mare and then bred the recipient mare to produce an embryo. The new technique — oocyte (egg) transfer — is being offered to clients at Tufts' Hospital for Large Animals.

"To my knowledge, Tufts is the only veterinary facility offering this procedure clinically," said Dr. Katrin Hinrichs, associate professor of medicine and director of the Equine Reproduction Center at Tufts.

Hinrichs and her research team repeated and expanded on earlier oocyte transfer studies reported in 1995 by an equine research group in Wisconsin. "As a result of these studies, many valuable horses out there that previously were considered sterile will now be able to produce foals. This is really great news for these mare owners," Hinrichs said.

During the 1996 breeding season, Hinrichs and her team performed eight oocyte transfers and achieved pregnancies in six of those procedures. Hinrichs presented her findings at the annual meeting of the International Embryo Transfer Society in France.

"Although clinicians and researchers have been getting oocytes from mares for years, no one has been able to repeatedly obtain foals from the oocytes," Hinrichs said. "With this technique, we now can do that clinically and offer it to our clients."

**Jim Grisanzio**

## FISH OIL HELPS DOGS WITH HEART DISEASE

Fish oil supplements help thwart the loss of muscle mass in dogs suffering from heart disease, according to a study at the School of Veterinary Medicine.

"We are very excited about these results," said Dr. Lisa M. Freeman, V91, a veterinary nutritionist at Tufts. "My hunch is that a higher dose of fish oil might have even more of an effect, but we need to do more studies in this area."

Dogs with heart disease — like humans with heart disease, cancer or AIDS — lose muscle mass, resulting in decreased strength and immune function. When ill, the body produces elevated levels of hormone-like substances called cytokines to help fight the offending pathogen. But at high levels and for prolonged periods, cytokines can suppress appetite and cause a loss of muscle mass.

Freeman, who also is a researcher at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts, conducted the fish oil study in collaboration with colleagues from the veterinary school and the HNRCA. In the eight-week study, 28 dogs with congestive heart failure were divided into two groups. One group was given fish oil, while the other received a placebo.

Fish oil is not a magic bullet for treating canine heart disease, Freeman cautions. "But even more exciting was the finding that reductions in cytokine levels were associated with a longer survival time," Freeman said.

The study was funded by the National Institutes of Health, Hills Pet Products, the Mark Morris Institute and the American Society for Parenteral and Enteral Nutrition.

Photo by Dietrich C. Gehring

*Dr. Lisa M Freeman with Mollie, her 6-year-old Irish Wolfhound, outside Tufts' Henry and Lois Foster Hospital for Small Animals.*

# A beast in the bathtub?

## *Barbour Foundation sets pace for new Wildlife Clinic*

Eve Lloyd Thompson remembers walking up from the basement in Tufts' Wildlife Clinic and seeing green leaves come flying through a doorway.

She was, of course, curious. Peering into the room, Thompson saw an ailing beaver eating its lunch in an antique bathtub.

Two thoughts crossed Thompson's mind. First, she felt how she always feels when visiting the school: a sense of satisfaction knowing that each animal at the Wildlife Clinic is receiving great care — no matter what the species, no matter what the ailment.

But Thompson, a School of Veterinary Medicine overseer, also was a bit dismayed that in treating wildlife, Tufts had to make do with whatever it could find at the moment. And at that point, the best the Wildlife Clinic could offer the beaver was a claw-footed bathtub.

Photos by Brooks Kraft

"Other schools have better bells and whistles," Thompson says. "But Tufts always puts animals first. It's time we fixed the limitations so the school can do what it does best."

Through a $300,000 grant provided to the School of Veterinary Medicine by the Bernice Barbour Foundation, of which Thompson is a trustee, the school is poised to raise the remaining funds for construction of a new Wildlife Clinic. The $1 million facility is needed to move the existing, extraordinarily successful clinic out of its current building — a 3,500-square-foot house once used as nurses' quarters at the former Grafton State Hospital.

The Barbour Foundation grant allows the school to begin site planning and to complete architectural drawings. When the remaining $700,000 is raised and the new clinic built, the school will fulfill one piece of Dean Philip C. Kosch's multifaceted plan to solidify environmental studies as a programmatic strength of Tufts veterinary school.

Dr. Mark Pokras, V84, director of the Wildlife Clinic, says the clinic's mission mirrors the School of Veterinary Medicine's basic goals in that it focuses on teaching, research and service to the community.

"In all of those categories, the space that we currently have is simply too small," he says.

In 1983, when the clinic opened, three staff members served less than 300 animals, and little research was done. Now four full-time staffers, two part-timers, two fourth-year students, four to six other students and about a half-dozen volunteers treat more than 1,300 animals a year, while conducting research with an ever-increasing stream of visiting collaborators. About 85 percent of fourth-year students choose to do an elective rotation at the clinic, which also serves as a resource for the Massachusetts Division of Fisheries and Wildlife. The clinic is also designated by the U.S. Fish and Wildlife Service as the official center in the Northeast for the care of endangered species.

"At the time it was good," Pokras says of the current building. "Now, we're the victim of our own successes."

The clinic uses advanced technology to treat injured wildlife that the public, veterinarians and state agencies from

across New England send to North Grafton. The new facility will contain space designed specifically for treating animals. That means a state-of-the-art operating room will be built for surgery, and a radiology room will be where animals get X-rays. In the current setup, the renovated bedrooms, dining rooms and parlors on different floors of a residential house are where wildlife is treated. The new clinic will have spacious holding areas, as well as space for handling medium- to large-sized carnivores. The new Wildlife Clinic will be an improvement because it simply will be larger, containing safer, more efficient space for research, treatment and education.

Pokras says a new Wildlife Clinic, assisted greatly by the Bernice Barbour Foundation leadership gift, will have an obvious, positive effect on animal health care. "It's also a bridge from the little picture to the big," he adds. "With each animal we see, we ask: What does this animal tell us about wildlife populations and human encroachment? What does it tell us about the bigger environment and about animal behavior?"

Eve Lloyd Thompson says she is gratified that a new Wildlife Clinic will expand upon the work now occurring in North Grafton. And she is pleased that the clinic will fulfill the prime mission of the late Bernice Wall Barbour, a lifelong resident of New Jersey, whose foundation is dedicated to "making the lives of animals happier and healthier."

When the new Wildlife Clinic opens, Thompson says she has an idea for decorating the lobby to show where the clinic has been and where it's going. How about, she asks, a statue of a beaver in an antique bathtub?

**John LoDico**

# Tufts Tomorrow

## WHAT THIS CAMPAIGN DOES

The *Tufts Tomorrow* campaign, the university's largest and most comprehensive fund-raising effort ever, is forging ahead. By the time you read this, the university will have raised more than $200 million of its $400 million goal. The School of Veterinary Medicine also is exceeding expectations; so far it has raised $27 million, or 66 percent, of its $41 million goal.

The numbers are impressive. But more impressive is how the funds contributed to the veterinary school by alumni, parents and friends are strengthening the school and positioning it for continued leadership in veterinary education and animal health care.

The *Tufts Tomorrow* campaign is raising funds to endow professorships. It is allowing the school to provide more financial aid to bright and committed students. *Tufts Tomorrow* is also the mechanism for the school to create new facilities to provide state-of-the-art teaching, research and clinical care space, such as the Wildlife Clinic and the anatomy laboratory/education building.

The campaign is garnering great support from a wide spectrum of philanthropists. Tufts School of Veterinary Medicine is grateful for each gift it receives. Following are just a few examples of those who are helping us succeed:

- Marilyn Fels of Dudley, Mass., gave $100,000 to establish the Marilyn Fels Scholarship Fund. Residents of Worcester County, Mass., with a primary interest in feline medicine will be given a preference in the awarding of the scholarship.
- The Massachusetts Veterinary Medical Association Scholarship Loan Fund of New England, chaired by Dr. Richard J. Sheehan, *V88P*, has made a grant of *$100,000* to endow a scholarship fund to support New England students at Tufts' veterinary school.
- The school has received a $250,000 unrestricted bequest from the estate of Evelyn Jenks of Winchester, Mass.
- A gift of $250,000 from Overseer Agnes Varis of Englewood, N.J., and $50,000 grants from the George F. and Sybil H. Fuller Foundation and from the Stoddard Charitable Trust, both of Worcester, Mass., bring fund-raising for the planned anatomy laboratory/education facility to $991,000.
- And a generous gift from Norma, J65, and Malcolm Baker of Beverly Hills, Calif., continues to support the Sydney M. & Leah Siegel Internship in Emergency Medicine and Critical Care, named for Norma Baker's parents.

If you want to know more about *Tufts Tomorrow,* the new Wildlife Clinic and how you can help, contact Shelley Rodman, director of veterinary development, at (508) 839-7909.
Or e-mail srodman@infonet.tufts.edu

# PHOTO FINISH

Photo by Brian DelGiudice

## *Take a deep breath*

A new equine lung function test developed by a Tufts veterinarian may make the difference between a winner and an also-ran on the track.

In the photo above, Dr. Andrew Hoffman and technician Beth Torello give a horse a new lung function test that Hoffman recently developed at Tufts. "We are the first in the nation to offer this sensitive, non-invasive physiologic test for small airway disease (SAID)," said Hoffman, director of the Issam M. Fares Equine Sports Medicine Program.

SAID is a chronic, non-infectious inflammatory disease of the bronchioles and alveoli. Left untreated, SAID can develop into a more serious condition, chronic obstructive pulmonary disease (COPD), and prevent a horse from realizing its full athletic potential.

"SAID may be a smoldering asthma," Hoffman said. When mucus accumulates, the small airways are blocked, and entire areas of the lungs don't get sufficient oxygen. This usually isn't severe enough to cause an obvious problem for most pleasure horses, but race or event horses would be seriously impaired by the condition.

"If you nip SAID in the bud, you can postpone the development of COPD for a long time — possibly forever," Hoffman said. "This new test, which measures the air flow and lung elasticity, gives us an excellent, non-invasive early detection tool."

**Veterinary World**

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