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RARA AVIS

TO THE ENDS OF THE EARTH
WITH HOWARD EVANS



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Growing Bones
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COVER PHOTO: Erica and Howard Evans
show their delight in finding a
whale bone during the 2003 CAU
trip to Antarctica.



Howard Evans is going on 82, but beneath the veneer of age lurks a bright, adventurous boy who spent his early years looking under rocks and catching frogs in New York's Central Park—and who could tell you the classification, preferred habitat, dietary predilections, and mating behavior of the prize he held clutched in his hand. That lively and engaging child is now a professor emeritus of anatomy who has taught thousands of veterinary students and led legions of alumni on 18 Cornell Adult University (CAU) tours to the various ends of the earth; a profound and thoroughgoing scholar who has never lost the sense of unre-served wonder of childhood, and who has joyfully spent a lifetime reaching to wrap the entirety of life—animal and plant, ancient and extant—in one huge, inquisitive embrace.

"You know how everything is exciting when kids are two or three?" asks Roy Pollock, DVM '78, PhD '81, who accompanied Evans to Antarctica. "Everything is interesting, and they stop and look at everything and want to know about it. Well, that's Howie. Everything is interesting, everything can be learned about, everything is connected to something else, and that's what makes it a gas."

For Evans, the whole world is a classroom, and class is always in session. During the trip to Antarctica, for



example, "he brought a starfish with about 50 arms to breakfast," Pollock laughs. "We dissected an ice fish in the bar; right up on the bar! We found a dead penguin, so Howie dissected it right there on a big hunk of ice that had washed ashore. On a trip we took with him to the Galapagos Islands, we reassembled a sea lion from all the bits and pieces we found on the beach."

Evans's co-leader in Antarctica was Cornell President Emeritus Frank H. T. Rhodes, a geologist and paleontologist who has teamed up with Evans several

times for trips to such diverse destinations as South Africa, Kenya, and New Guinea. The earth scientist finds that Evans's expertise meshes exceptionally well with his own. "He is able to commu-

nicate an excitement and a love of organisms in the most comprehensive way," Rhodes says, "not just animals, but plants, the relationship of both to the environment, ecological issues, the relation of those to commercial and development issues. He's just a wonderful all-rounder."

Professor Emeritus Evans is an anatomist by profession, but he was born a naturalist. As far back as he can remember, he was interested in reptiles, especially turtles. He also had a talent for practical jokes. His second-grade teacher wisely controlled the latter impulse by exploiting the former, putting him to work collecting and researching various animals, vegetables, and minerals and presenting his findings to the class.

rara avis



Parts of Evans's extensive collection of specimens from around the world

by Jeanne M. Griffith



Dede Hatch

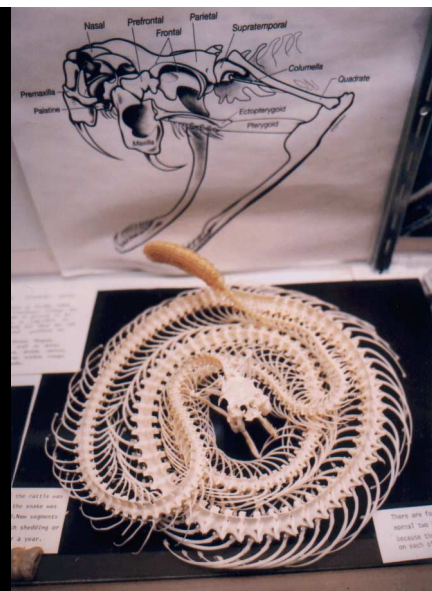
ABOVE: Collection of horse jawbones used for teaching to demonstrate changes over the lifespan of a horse.

By the time he was 15, Evans's family had moved near the American Museum of Natural History in Manhattan, where he worked for three years after school helping craft detailed dioramas for the Akley African Hall. He also volunteered in the laboratory of Gladwyn Kingsley Noble, curator of herpetology and experimental biology, whose textbook, *Biology of the Amphibia*, is still considered a world classic. Evans fed the frogs and snakes, sorted exotic preserved samples that were arriving from Australia, and accompanied Noble on field trips. He combed the area parks, collecting live specimens for distribution to public school biology teachers through the museum's School Nature League.

His interest in Cornell was sparked by an encounter with an exterminator who was working in his apartment building. After Evans quizzed him closely about his methods, the exterminator told him he ought to go to Cornell, where they had a whole building devoted to insects. Evans enrolled in the New York State College of Agriculture in 1940.

The Second World War cut short his student days on campus. Evans joined ROTC as a freshman and got called to active duty at the end of his sophomore year. He spent most of his

In Fort Sill, Oklahoma, Evans made one of his most notorious acquisitions—a newborn western diamondback rattlesnake, which he named Esmeralda. “When that snake died,” claims Evans’s wife, Erica, “he was so sad that they thought I’d died.” Even so, Evans did not pass up the opportunity to dissect it—in the process discovering that Esmeralda had actually been male—and coiled the preserved skeleton, renamed Oscar, in a display case outside his office.



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tour training soldiers to service 50-caliber machine guns and to drive trucks in Texas and Oklahoma.

Even in the Army, Evans devoted every spare moment to furthering his education. During basic training in South Carolina, he whiled away time spent sitting in foxholes by catching narrow-mouthed toads. In Fort Sill, Oklahoma, he made one of his most notorious acquisitions—a newborn western diamondback rattlesnake, which he found lying on a windowsill. “Oh, it was like a worm. Just like a worm,” he reminisces with something akin to fondness. He named the little viper Esmeralda and shipped it back to Cornell. Esmeralda lived 19 years, growing to be almost six feet long. Evans kept the snake in an aquarium in his office, which his longtime colleague Alexander de Lahunta thinks may be why he never had to share the space with an office mate. “The beauty of it was that all the veterinary students [had] a demonstration of how a snake killed and swallowed its prey,” Evans points out enthusiastically. “You could get right up nose-to-nose and watch it. It wasn’t afraid of eating in front of everybody.” (“When that snake died,” claims Evans’s wife, Erica, “he was so sad that the students thought I’d died.” Even so, Evans did not pass up the opportunity to dissect it—in the process discovering that Esmeralda had actually been

male—and coiled the preserved skeleton, renamed Oscar, in a display case outside his office.)

Hoping to increase his knowledge of insects and malaria control, Evans volunteered to be shipped off to Panama. The malaria-control position had already been filled, however, and he was given command of a bakery instead. It wasn’t what the second lieutenant had in mind, but at least it left his afternoons free. He used the time to search for snakes and frogs to send back to the American Museum of Natural History. One of those specimens turned out to be a new species of microhylid frog, which Evans found in a park in Old Panama City while disposing of his empty lunch bag. “On my way to the garbage can, I lifted this flat rock up, and this little frog started to hop,” he says. “When I looked at it, I thought to myself that it looked like a narrow-mouthed toad.” He preserved it and sent it back to New York, where it was spied by Emmett Dunn, the famed amphibian expert, who had been looking for 35 years for such a creature. Dunn ended up as senior author on the paper, but he gave the amateur zoologist the honor of describing and naming his discovery, *Chiasmocleis panamensis*.

Evans was awarded his Cornell degree in absentia in 1944 and, upon his discharge from the Army, returned to do his graduate work with his under-



Russ Hamilton

graduate mentor, zoology professor Perry Gilbert. In 1950, Evans was invited to join the faculty. Not everyone was convinced that a zoologist was qualified to teach veterinary students. But Malcolm Miller, chairman of the anatomy department, was less concerned with hiring a veterinarian than with acquiring a top-flight comparative anatomist. "Mac Miller was so broad-minded," Evans says. "He saw veterinary medicine as encompassing all animals."

Miller's judgment would be vindicated. Evans earned such a stellar reputation for teaching, scholarship, and academic leadership that he was elected, in 1970, to honorary membership in the American Veterinary Medical Association. After Miller's death, Evans served 12 years as secretary of the college, a position in which he provided back up for the dean in those days before assistant and associate deans. Evans has also served as president of both the American Association of Veterinary Anatomists and the World Association of Veterinary Anatomists, in addition to many other honors.

For the first seven years after he was hired, Evans taught the anatomy of the horse and cow as well as canine anatomy. At Miller's request, he began teaching chicken anatomy in 1951. When pet birds became popular, he succeeded in adding budgerigar anatomy to the curriculum as well. "Howard

mainly thinks of himself as a fish and bird anatomist," notes Professor Nelly Farnum, a fellow anatomist, "but that's not how we see him. He has also contributed a tremendous amount to veterinary anatomy and to dissection anatomy."

In the mid-1950s, Miller invited Evans to contribute a chapter on fetal development to *Anatomy of the Dog*, a textbook that he had been researching and writing for nearly 10 years. In order to expedite his research for the chapter, which would involve removing and examining canine fetuses to establish and characterize their developmental stages, Evans decided to use an upcoming sabbatical leave to learn how to perform the necessary surgeries himself. With funding from the National Science Foundation, he aligned himself a little more closely with the veterinary profession by qualifying for certification in small-animal surgery at the University of California, Davis, in 1957.

Miller was never able to finish his anatomy text; he died of a brain tumor in 1960. Evans, who had worked closely with him throughout his illness, finished the book with help from G. C. Christensen; when it was finally published in 1964, Miller was listed as author "with assistance" from his junior colleagues. Evans has subsequently published two significant revisions under

the title *Miller's Anatomy of the Dog*. "People say that anatomy doesn't change that much," Farnum comments, "but that book has become remarkably more sophisticated even in the 20 years that I have known about it. There is no anatomy book of the dog that will ever rival that one. It is *the* textbook."

Evans and de Lahunta, a professor of neuroanatomy, took on another of Miller's labors, his *Guide to the Dissection of the Dog*, which Miller first published in 1947 and revised twice before his death. Evans and de Lahunta rewrote the book and published it in 1969 as *Miller's Guide to the Dissection of the Dog*. The book remains a staple of veterinary curricula worldwide, and the two authors just recently published their sixth edition. Evans has also written three editions of *Anatomy of the Budgerigar*, the most recent of which incorporates other birds as well; an anatomy of the ferret; manuals on the anatomy of reptiles and tropical fishes; and dissection guides for the study of chickens and other birds. He and senior lecturer Braam Bezuidenhout recently finished a monograph on woodchuck anatomy.

While Evans's books have brought him name recognition, he looks back on the opportunity to teach veterinary students as the best part of his experience as an academic. Evans regards the veterinary students at Cornell as unusually accomplished, focused, and capable. He and his wife have formed many enduring friendships with them and have even endowed a comparative anatomy award to help support their studies.

"He is a wonderful, wonderful teacher," declares Bezuidenhout. "Most veterinary anatomists can speak in depth about the anatomy of a certain structure in our domestic animals, but Howard can take it from there to birds, to fishes, to reptiles, amphibians . . . it doesn't matter what. Students will gather around him, because he always has wonderful stories to tell about a structure. He has examined virtually every single thing that there is to examine in an animal, so he can teach out of personal experience."

For Evans, personal experience usually comes with a story attached. There

is the story of the shark that bit him on the thumb, a perennial favorite among schoolchildren; he has the shark's head in his office, to show who won that encounter. Another favorite concerns the belly-up electric torpedo ray that shocked Evans twice before he realized what it was and that it was alive. Bezuidenhout probably still hasn't lived down the episode of the four woodchucks, preserved in formalin, that Evans sent to him in South Africa via diplomatic courier. Evans reasoned that sending the carcasses by diplomatic mail would save him a lot of explanation at the post office. Unfortunately, the package arrived while Bezuidenhout was away on holiday and got shelved at the embassy. When it began leaking formalin, the bewildered bureaucrats evacuated the mailroom. Then it was left to Bezuidenhout to do the explaining.

Evans's wide-ranging lecture style attracted an appreciative following among the faculty as well as the students. "Howie's lectures always began with the topic and ended with the topic," says colleague Drew Noden, a professor of developmental biology. "The 49 minutes in between were this incredible journey around the world—vertebrates of every class and many invertebrates, as much about the flora as the fauna, and the geological record. His lecture on the eye might include a discussion of copepods, which are intermediate hosts for certain intestinal parasites, and of how cormorants catch fish in the Nara River, which he knows because he's been there. If your goal was the most efficient presentation of eye anatomy, this was not the classroom to be in. If it was to see this person's grasp of how visual anatomy affected the lives of every organism in as many ways as there are organisms, this was just unbelievable."

Anatomist John Hermanson was asked to help teach Evans's course in fish and bird anatomy when he was first hired as an assistant professor. By then Evans had officially retired but continued to teach in between his frequent travels. "The course was pretty well orchestrated, but I never knew what the guy was going to talk about," Herman-



Dede Hatch

son laughs. "It would be the anecdotes that came to his mind, silly things. Did you know that the swim bladder of a toadfish is actually a sonic device? The males use it to communicate; it's how they attract mates." Evans made that fact memorable by telling his classes how the arrival of toadfish mating season had sent the navy into high alert one year during World War II. To protect against attack, the navy had laid

sonic mines in Chesapeake Bay, their triggers tuned to the frequency of a U-boat propeller. When the toadfish began calling to their mates, all the mines went off, causing the navy to launch a frantic hunt for submarines.

There's logic to the Evans style. After relating the story of the toadfish versus the U.S. Navy, for instance, he describes how the navy funded the development of a library of fish sounds so



Evans regularly carries a big basket of parts and pieces into the area elementary schools to delight students with the ultimate Show and Tell. Children recognize him immediately as a kindred spirit.



that they could avoid tuning their mines to naturally occurring frequencies. Then he turns to the subject of snapping shrimp, noisy little creatures that form a layer at a depth of 300 or 400 fathoms, and the elusive megamouth shark, which enjoys scooping them up by the boatload. By sending down listening devices to locate the shrimp, scientists have on very rare oc-

casions caught one of the 15-foot-long sharks. So we have the toadfish to thank for that.

"After the lecture we'd go into the lab and Howie would do something like anesthetize a rooster," Hermanson says. "It was like going to the circus. You can take a rooster and calm it down by stretching its neck out and laying it on its back. If you take the hand that has it by the head and, in a straight line, take your hand away, the bird will focus on your hand and go into a hypnotic trance." Hermanson has never found this phenomenon described in any textbook.

"A lot of what Howie does, he does because he thinks it's fun," says Farnum. "But it must always be stressed that this isn't a man superficially going through life on a lark. He is a very, very serious scholar. He is very affable, he's always a gentleman, always polite, but he is intense. There's no question that he is one of the most intellectually intense people I have known on the faculty."

"Howie is enormously self-disciplined in terms of knowing what it takes to have a scholarly product, but the process by which he gathers the information is extraordinarily opportunistic,"

Noden observes. "For example, he'll spend months planning for the CAU trips. He knows so much already, but there are always new books to read, new species to learn about, and he just knows in his heart that he'll be a happier person if he knows about them. And on he goes. He is relentless."

Evans still teaches a one-credit elective to veterinary students called *Natural History and Its Literature*: a sweeping review of earth science, plant science, invertebrates, fishes, amphibians

and reptiles, birds, and mammals. He also regularly carries a big basket of parts and pieces into the area elementary schools to delight students with the ultimate Show and Tell. Children recognize him immediately as a kindred spirit. De Lahunta remembers how much his children always looked forward to visiting the Evanses. Says Bezuidenhout,

"I envy his children, his boy and his girl. To grow up with a father like him must have been a wonderful experience."

To hear his colleagues tell it, having him as a boss was also a wonderful experience. Evans chaired the Department of Anatomy for the 10 years leading up to his retirement in 1986. Says Noden, "He was the perfect administrator for that department for that era, because it was still a context, for both the discipline and the time, in which scholarship was evaluated based on what you believed the person knew and understood and not predicated solely on quantifiable entities." Hermanson remembers those days with nostalgia as well. "It was clear that this was a great little department—passionate about teaching. If you wanted to be a good teacher and work hard, that was really what it was all about."

Noden, Farnum, Hermanson, and Bezuidenhout all have fond memories of the Evans recruiting style. After putting Hermanson through the usual grueling round of interviews and lecturing, Evans invited the exhausted candidate to come to his house for dinner with his wife, Erica, and a few friends. "I remember walking in the door of their house and smelling the pot roast," Hermanson says. "I felt like I had walked into my mom's kitchen. I don't remember what I had at all those other big dinners I'd been to. I remember the pot roast at their house."

Hermanson's interviews concluded late the next day, and Evans drove him to the airport. "We're late; I have a four o'clock flight, it's a quarter to four, and we're just going over the bridge down at Fall Creek," Hermanson recalls. "All of a sudden he says, 'We never talked about money, did we?' and I say, 'No,' and he says, 'I don't know; we're all happy. What can I tell you? Call me later.' And that was the whole negotiation."

Evans hired Noden over the telephone while on sabbatic in Hawaii. When the two finally met face-to-face at the Aquavet program in Woods Hole, Mass., where Evans taught every summer for 20 years, Noden and his wife were instantly drawn to Howie and



ABOVE: Rosa Rhodes, Howard Evans, and Frank Rhodes—co-leader on the Antarctic trip. BELOW: Evans's research files for CAU travels.

Erica Evans. "We had never met two more charming, genuinely interested, happy people—happy that we were going to come and join them," Noden recalls. "This is an overused expression, but we immediately recognized that we were coming into a family."

When Noden became the first member of the anatomy department to attract NIH funding, Evans's reaction affected him deeply. "For Howie, this was like a new grandchild," he says. "This was something he had always wanted to have happen, and he was so excited. So he and Erica had a big party in their home. This was not about me; everyone shared vicariously in this. For those of us whose walk through the profession is as much about limbic rewards as intellectual accomplishments, these are the really important events."

Even Frank Rhodes first met Evans as a job candidate. Evans was serving on the faculty council when Rhodes was recruited to the presidency of Cornell, and was one of the faculty members invited to meet with Rhodes before his hiring was finalized. The two got to know each other better after Evans was elected to a career-capping five-year

As his colleagues point out, Evans has never stopped taking charge of his intellectual direction, and the joy of exploration shapes his entire approach to life and happiness.

term on the board of trustees.

"I was always immensely impressed by the thoughtfulness and balance and constructiveness of everything that Howie did," Rhodes says. "He's a wonderful example of the best kind of university citizen, with the interests of the whole university—the faculty, students, staff, and alumni—very much at heart. And the knowledge and the breadth and the compassion that he brings to all those activities I thought were just extraordinary. Howie is a model of the best in science and the best in the life of the university, and I cherish my friendship with him, as does Rosa. We're dear friends of both Howie and Erica."

It seems that no friend or colleague ever talks about Howard Evans with-

out mentioning his wife. Erica Evans has been his constant companion for more than 55 years, producing superb repasts for colleagues, friends, and visitors; serving for six months as interpreter for a Latvian technician who could understand Swiss German, her native language; teaching English to the spouses of foreign graduate students; proofreading her husband's books; keeping his spirits up through a serious illness; providing him with stimulating intellectual companionship; and keeping him on schedule on all those CAU trips. ("He always wants to do one more thing," she says. "It's a big job to keep him on time.") She also raised their two children, worked as a laboratory technician in nutrition and then plant pathology for nearly 10 years at Cornell, and has volunteered very actively in the Veterinary Circle and within the larger community, on campus and off. "Erica has always been there, by his side," Farnum says. "It's a very interesting relationship, because for all she does for him, it's a very equal relationship in so many ways."

"When you're with Howie and Erica," she continues, "they always seem to have so much going for them, and they're so upbeat about the next thing that's coming down the line. But it isn't like they have guardian angels and stars over them. They make those experiences for themselves. Without ever

losing energy, they find new outlets for their intellectual exploration in a way that I just don't think most people do."

One of the outlets that Evans has enjoyed since his retirement is his relationship with the veterinary college at St. George's University on the island of Grenada. He has gone there several times to teach fish and bird anatomy and the natural history of the Caribbean.

"Howard has a huge international standing as a scientist," says Bezuidenhout. "I don't think there's a country in the world where veterinary science is

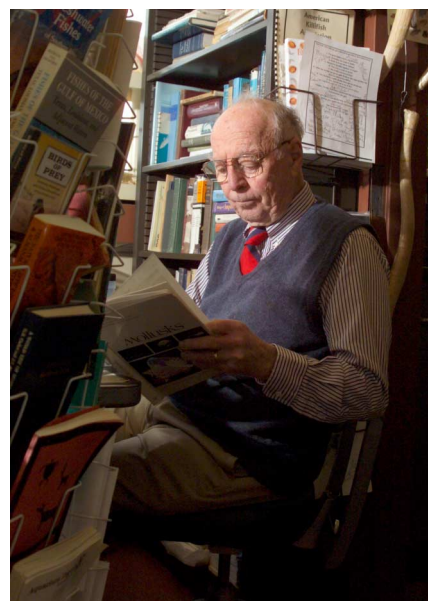


Dede Hatch

taught that the name Howard Evans is not known. He retired a long time ago, but he still gets invited to veterinary colleges all over the place. Certainly he is known everywhere as an anatomist and an embryologist, but he is far more than that. He's most probably one of the last truly great naturalists."

Howard Evans spent 54 years of his life as an anatomy professor at Cornell. In his first few years he overlapped with Grant Sherman Hopkins, the college's first professor of anatomy and the last surviving member of the original veterinary faculty. He has served under six deans and one interim dean, and had three of them as students. His early career coincided with the rise in prominence of veterinary anatomy within the

college, and he and his exceptional colleagues—Robert Habel, Alexander de Lahunta, the late John Cummings, and Wolfgang Sack among them—gained international renown for the depth of their scholarship. Evans has also witnessed the shifting of emphasis away from traditional morphological studies and toward the elucidation of biological functioning on a molecular level. But, as his colleagues point out, he has never stopped taking charge of his intellectual direction, and the joy of exploration shapes his entire approach to life and happiness. Forever exuberant, he continues his quest for a deeper and broader understanding of the world's unending wonders—and in doing so is a wonder to us all.



Alexis Wenski-Roberts/Image Lab

The growth of bones is one of those biological processes that are so complex, and require such a high degree of precision and coordination, that it's remarkable that it ever goes right at all. The bones of an immature vertebrate—for example, a human child—have areas of cartilage, called growth plates, at each end. Through an intricate pattern of cellular division, enlargement, and death, the growing cartilage is gradually replaced by bone, so that the bone itself elongates at both ends. If you consider that the average human has two forearms, each with a radius and an ulna, and that each of those bones has two growth plates, that's eight growth plates that must be activated simultaneously and grow in coordination with each other so that the forearms are bilaterally symmetrical and straight.

How is that possible? A pair of Cornell researchers—Cornelia "Nelly" Farnum, an anatomist in the Department of Biomedical Science at the College of Veterinary Medicine, and Rebecca Williams, a biophysicist in Applied and Engineering Physics—are taking advantage of state-of-the-art imaging technology to find out. Farnum and Williams are using multiphoton

GLOWING CARTILAGE, GROWING BONES

**Cornell researchers
use state-of-the-art
imaging technology
to penetrate the secrets
of skeletal growth**

by Claudia Wheatley

microscopy to map the vascular system around the growth plates in the bones of transgenic mice, in hopes that this will yield information about the flow of nutrients and chemical signals that contribute to bone elongation. By determining how the process works under normal conditions, their work may lead to insights into why it sometimes breaks

down, as well as suggesting improved therapeutic approaches.

Farnum explains that while bones have a rich supply of blood vessels, arteries and veins do not penetrate cartilaginous areas like growth plates. Instead, growth plates appear to benefit indirectly from three peripheral blood supply routes: the metaphyseal, which is believed to signal cells that will become bone; the epiphyseal, which is thought to deliver nutrients such as oxygen and glucose to all the cells of the growth plate; and the periosteal, which may regulate the activities of the other two routes. But these are all hypotheses supported by experiments conducted from 30 to 50 years ago. Efforts to confirm them have been stymied by a simple fact of life: to closely study a circulatory process, you must be able to watch it in action, and for that you need to be able to somehow study it in vivo; to peer into a live specimen and capture images of the processes in action.

"People have studied it in many ways and know a lot about the anatomy of it, because you can inject blood vessels with very fine plastics, and then erode away all the tissue, and you're left with what the vessels look like," Farnum says. "But no one has ever looked at anything that has to do with delivery

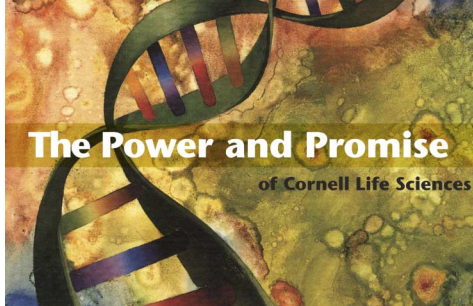
of molecules from the circulating blood to the cells of the growth plate in a living animal."

Multiphoton microscopy answers the need for in vivo imaging by using lasers emitting very short pulses of light, 10,000 times shorter than a nanosecond. The technology was developed at Cornell in the laboratory of Watt W. Webb, a professor in Applied Engineering and Physics. It scans tissue in layers to a depth of up to one-third of a millimeter, producing a high-resolution three-dimensional image to which a fourth dimension—time—may be added to create a moving picture of live tissue. Compared to earlier approaches, which invariably destroyed tissue in the process of examining it, lasers are relatively benign, causing little damage to the specimen. At Cornell, researchers have met across disciplines to use multiphoton microscopy for an astonishing array of purposes, from studying mouse models of human diseases like Alzheimer's and cancer to observing the functions of a living brain and identifying the process by which plants defend themselves from stresses like air pollution.

Multiphoton microscopy has a few shortcomings. Williams allows that it doesn't offer the highest possible resolution for images: "You can get higher resolution with electron microscopy." On the other hand, she adds, electron microscopy requires a dead specimen. So multiphoton microscopy "gives the best resolution possible using live specimens."

Another shortcoming emerged as the team contemplated studying the periosteal blood supply, which circulates through the periosteum, a layer of tough connective tissue surrounding bones. Because of its collagen density, the periosteum limited the ability of the lasers to penetrate into the growth plate. "You can't remove this layer because that's where the vasculature is," Williams says. The whole point of the exercise is to see how the periosteal blood supply impacts the growth plate.

Help arrived in the form of a breeding pair of transgenic mice donated by William Horton, director of the Research Center at Shriners' Hospital in



Portland, Ore., and a colleague of Farnum's. The mice had been genetically altered with Green Fluorescent Protein (GFP), a molecule isolated from bioluminescent jellyfish that molecular biologists can manipulate to "turn on" fluorescence in any system they wish to study. In Farnum's case, the molecule was targeted to type II collagen molecules, which are only found in cartilage. Looked at under a fluorescent microscope, a mouse embryo's skeleton—which is entirely made of cartilage—is bright green. When Farnum and Williams placed an anesthetized transgenic mouse with GFP under the multiphoton microscope, they were able to see through the periosteum into the growth plate, where the cartilage cells glowed like neon.

To study the delivery and removal mechanisms of the three blood routes, the mice were given intravenous injections of compounds of different molecular weights. The team then prepared to wait while the compounds made their way to the vicinity of the growth plate.

"I've studied the growth plate for 20 years and still, just because of the lore about how the blood doesn't have direct access to the growth plate, we assumed it would be a while before molecules move from the blood into the growth plate; we were thinking we could go get a cup of coffee and come back and watch it," Farnum recalls humorously. On the contrary, "not only are the compounds instantaneously in the blood supplies, but they start instantaneously moving into the growth plate." A series of still im-

ages taken from a movie of one procedure shows the dull-red compound rapidly entering and diffusing throughout the greenish growth plate. "If you were to watch this as a movie, you would see that it clearly enters first from this vessel from one side, then it comes from this side, then this side," Farnum says, pointing to the stills. "We have found differences in how fast these molecules get into the growth plate and how they move once they get within the cartilage matrix."

The team also injected the mice with the antibiotic tetracycline because

MRI



by Monica Miller

Cornell University Hospital for Animals is pleased to announce that magnetic resonance imaging is now available in house for companion animals. Acquired through a donation from

it chelates calcium, which means that it makes calcium unavailable to the body (women are discouraged from taking tetracycline during pregnancy because of its calcium chelating effect, which interferes with fetal skeletal development). Tetracycline is also fluorescent, allowing the team to spot areas of high calcium turnover where new bone is being formed.

The upshot of these investigations will be a clearer picture of the three blood access routes near the growth plate than has even been achieved before, because it will show how they are

related and work together in a living subject.

"I firmly believe, as most basic scientists do, that if you don't understand what's going on with normal development in a very sophisticated way, you're not going to truly be able to understand what's going on in a pathological situation," Farnum says. "Your bones only grow for a certain period of your life. And during that time, it all has to go right or they're not going to get as long as they should be, and you will end up with shortened or irregularly formed bones; in your forearms or knee joint

you can end up with what are called angular limb deformities. You can end up with permanent deformity." Armed with a better understanding of the system when it is functioning correctly, researchers can look for clues to why it sometimes goes awry in cases involving abnormal growth patterns caused by hormonal misfires or prenatal malnutrition.

Besides, says Farnum, it's fascinating in its own right. "What primarily motivates me is that this is a very interesting system to understand at a very basic science level."

a brand new view on small animals

the Maurice and Corinne Greenberg Foundation, the Esaote Veterinary MRI is an open magnet design, purpose-built and configured scanner to accommodate dogs, cats, and other small animals.

Bonita Voiland, assistant dean for hospital operations, says "this technology design is the first of its kind developed solely for companion animals." Developed and built in Italy first as an extremity magnet for people, the company has reconfigured the system, optimized the performance for animal patients, and has committed their experience and resources to the veterinary market. While several European veterinary hospitals currently use the equipment, this is the first installation in North America. More information on the technology is available on the manufacturer's web site at www.esaote.com.

"MRI was the next logical step for Cornell," says Dean Voiland, referring to the selection of imaging modalities already available to CUHA patients, including radiography, digital fluoroscopy, ultrasonography, echocardiography, nuclear medicine, and computed tomography (CT). "MRI adds another imaging procedure to our hospital that will help us test for disease in the central nervous system and musculoskeletal

system. MRI is particularly useful in detecting lesions in soft tissues that other modalities have difficulty depicting," says Dr. Nathan Dykes, chief of the Section of Veterinary Imaging. Some of the conditions that MRI will depict include brain diseases of many causes, spinal cord injuries, and musculoskeletal lameness problems. "Subtle differences in body tissues are present when diseased. CT, x-ray, and ultrasound might not be able to distinguish these differences, whereas MRI can. The depiction of anatomical structures and disease in the nervous system is superior with this imaging procedure. The improved resolution of soft-tissue lesions compared with other modalities is the advantage of MRI," states Dr. Dykes.

A six-week renovation project this fall that combined two small adjacent rooms into one larger imaging area affords clinicians and patients easy access to the technology. Dr. Dykes also noted that with installation in house, MRI examinations can be performed whenever needed without relying on intermittent mobile services or evening access to equipment built for people. This MRI scanner uses a permanent magnet with field strength of 0.2T and does not require expensive cryogenics,

so operating and maintenance costs are less. Improved coil technology and imaging software create impressive images. Esaote houses the magnet within a freestanding, radiofrequency-shielding pavilion that was another cost-saving innovation.

Applications training finished the week of October 11 and clinical scans are now available. Visit the Cornell University Hospital for Animals website at www.vet.cornell.edu/hospital. Clients can make appointments for examination and consultation by calling the Hospital at (607) 253-3060.



The new MRI's open design allows for easy imaging of small animals. Clinical scans are now available.

Alexis Wenski-Roberts/Image Lab



the detectives

An outbreak of equine influenza among racing greyhounds in Jacksonville, Fla., last January has turned out to be far from a fluke, as the virus struck again and again from June through August, extending to every state that has greyhound race-tracks and possibly turning up in other breeds of dog as well. The cross-species nature of the illness worries some researchers, as they consider the implications of viruses that jump from animal to animal and, potentially, to humans.

Investigators were initially baffled when a severe respiratory illness struck greyhound kennels in Florida in 2003–2004. In January 2004, eight of the 24 affected dogs died. Ultimately, Cornell virologists working with researchers in Florida and the Centers for Disease Control (CDC) determined that the dogs were stricken by a type of influenza that is ordinarily found only in

Careful investigative work in a Cornell lab turns up an influenza virus that made an interspecies leap

by Claudia Wheatley

horses. This was the first scientific report of an equine influenza virus that jumped the species barrier.

Finding the culprit took careful detective work that included the combined talents and resources of three former colleagues from the College of Veterinary Medicine. There have been reports of a flu-like illness among dogs at racetracks from Florida to New England since at least the early 1990s, but they were sporadic. The increasing

severity of the 2003–2004 outbreaks prompted the University of Florida (UF) College of Veterinary Medicine Racing Laboratory and the Florida Division of Pari-Mutuel Waging, which regulates greyhound racing in that state, to fund an investigation. Cynda Crawford, a UF immunologist, collected and analyzed tissue samples from five of the dogs that had died in January 2004. She also collected blood and nasal fluid from both affected and unaffected dogs at the kennel. The pathology results suggested a viral disease, but did not identify the offending microorganism. But Crawford's lab lacked the resources required to solve the puzzle. So she turned to Cornell's Animal Health Diagnostic Lab, a full-service operation that has been conducting standard antibody screening related to this problem for several years.

"We anticipated that we were looking for something out of the ordinary," says Ed Dubovi, director of the virology center at the Cornell lab, "but we weren't necessarily thinking about influenza." However, Dubovi's group was already collaborating with a colleague in England who had come across a new respiratory ailment in dogs that seemed closely related to bovine coronavirus. With that in mind, they set up a whole range of tissue culture cells capable of detecting the new coronavirus, if it was present. "Fortunately, with the first dog we put up in culture, something started happening on one of the cell culture systems," Dubovi says. "We eventually worked it up enough to prove that it was real. Then we started doing our in-house testing and concluded that we did indeed have an influenza virus."

But which influenza virus did they have? There are 15 different hemagglutinin types (H-types), and the Cornell lab only had the necessary reagents to rule out two: the H5s and H7s, which are associated with avian flu. Fortunately one of Dubovi's former graduate students, Ruben Donis, had just been hired at the CDC in December 2003. Dubovi arranged to have samples sent to Donis at the CDC's Influenza



Branch, which routinely monitors influenza outbreaks that appear to be zoonotic (involving interspecies transmission). The CDC staff scientists concluded that the Florida greyhounds were infected with H3, a strain of influenza that is ordinarily found in horses.

The finding was so unexpected that Dubovi was suspicious. The Cornell lab routinely handles equine influenza cases, raising the possibility that the samples had been cross-contaminated. "So CDC did a nucleotide sequence of the hemagglutinin gene of a laboratory strain of equine influenza and the new isolate. Comparisons with these sequences and those in databases clearly showed that the Cornell isolate was different and not a lab contaminant," Dubovi says. In the meantime, Dubovi's lab analyzed serum samples on dogs from the affected kennel. "We started doing some antibody testing on those serum samples, and 13 out of the 26 animals sero-converted; that is, they had no or low antibody titers at the beginning of the process, and after the outbreak they were positive for antibodies to equine influenza. So we had evidence from the serology that what we did from the isolation testing wasn't a fluke, these dogs actually had it."

Former Cornell veterinary college professor William Castleman, a pulmonary pathologist specializing in respiratory viral diseases at the University of Florida, provided further evidence by setting up immunohistochemistry staining on lung tissues taken from affected dogs. Several of the samples indicated flu antigen in the lung tissue. "So that adds even more weight to the argument that this was not just a who-cares finding, that in fact the virus was capable of replicating and causing disease in the dogs," Dubovi points out.

"It's possible that dogs have been catching equine influenza all along," Dubovi adds. The virus causes relatively mild illness in horses, and dog breeds other than greyhounds may be similarly hardy. "The greyhound is a finely tuned athlete," Dubovi says. "It may have been the canary in the mineshaft that alerted us to this cross-over; it's so sensitive, unusual things happened to it. As we

Translating Discovery!

New date

June 12–14, 2005

New experiences

The Annual Cornell Veterinary Conference has been redesigned.

Same great location

This year's theme is Translating Discovery. Attendees will join in a dialogue with researchers and clinical faculty as we explore the spectrum of discovery from the most basic research to clinical observation and treatment. This dialogue is critical, today perhaps more than ever, as we strive to improve animal and human medicine.

New Date and New Experiences

We've listened to your comments and would like to better meet the needs of attendees by providing you with experiences not possible during the academic year. Holding the conference in June allows us to capitalize on our exceptional laboratories, clinical space, computer labs, and faculty that are not available during the school year. These dates also allow faculty and students to participate fully in the conference.

Summer in Ithaca

Ithaca is lovely in the summer and campus is in full bloom. You can visit local attractions and favorite spots. Bring a friend or family along to see the lakes, take in local museums, or have a quiet escape.

Conference Information

Keep checking our web site (www.vet.cornell.edu) under the "Continuing Education" section. We will post conference information as it becomes available. You may also call Amanda Mott at 607-253-3200.

www.vet.cornell.edu

look at this, we may find that what people thought was kennel cough is actually equine influenza.”

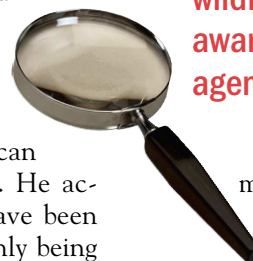
Epidemiological studies are now underway to find out how the greyhounds could have been exposed to the virus. There is little mystery to how it spread so quickly through racing dogs this summer; owners tend to keep greyhounds in close quarters, and the dogs are constantly moving from track to track, giving the virus plenty of opportunities to travel across state lines.

The whole experience underlines Dubovi’s longstanding concern over the extent to which public health officials monitor the transmission of disease from one species to another. In addition to greyhounds with equine influenza, there are reports of equine herpes virus in llamas, and a virus that affects fruit bats has been found in pigs in

Southeast Asia. In October, about 30 tigers died at a zoo in Thailand after they were fed poultry infected with avian influenza—a virus that has also claimed the lives of more than two dozen humans in Thailand and Vietnam. “As populations get denser and domestic animals mix with each other and with wildlife, we have to be aware that disease-causing agents can jump species,” Dubovi says. He acknowledges that this may have been happening all along and is only being picked up now because of the increased number and sensitivity of contemporary testing methods. But Dubovi strongly feels that the system may be missing some important opportunities.

The current approach is one of targeted surveillance: for example, if a flock of chickens dies, the U.S. Depart-

“As populations get denser and domestic animals mix with each other and with wildlife, we have to be aware that disease-causing agents can jump species”



ment of Agriculture will pay to test it for avian influenza and exotic Newcastle disease.

If those two diseases are ruled out, that may be the end of the investigation. “In New York State, the public health people take the approach that, ‘If we find something interesting in an animal, we’ll send it your way and we’ll pay you for doing it,’ but that’s a backwards situation,” Dubovi says. “You

Gift Endows the Deanship



Austin O. Hooey pictured here circa 1945. Her gifts were engendered by family loyalty to Cornell and her interest in animal welfare.

The name Austin Hooey may not sound familiar, but that is about to change. Miss Hooey, who in life declined to publicize her charitable intentions, left an extraordinary bequest in February to endow the deanship of the College of Veterinary Medicine. The title of Austin O.

Hooey Dean has therefore been conferred by the trustees of Cornell University on Donald F. Smith, the incumbent dean of the college and will carry over to each of his successors.

“The college is greatly honored to receive this defining gift. Proceeds from this endowment will have a

substantial impact on our ability to sustain academic priorities of the college,” said Dean Smith.

A second provision in Miss Hooey’s will names the directorship of Cornell’s School of Chemical and Biomolecular Engineering for her father, William C. Hooey, a 1912 graduate of the school. Funds in excess of the amounts required to endow the deanship and the directorship will provide scholarship aid to students in the respective programs. Miss Hooey made both bequests in memory of her father and her mother, Edna O. Hooey, a graduate of the Johns Hopkins University School of Nursing.

Though an alumna of

Mount Holyoke College, Miss Hooey had a lifelong relationship with Cornell. Her father maintained close ties with the campus and brought his daughter with him when he visited. He also impressed upon her early his gratitude for the financial support he had received from his uncle and without which he would not have been able to attend Cornell. Mr. Hooey repaid his uncle’s generosity by supporting the education of other worthy students at Cornell through the William C. Hooey Scholarship. Miss Hooey’s Cornell affiliations were so strong that she was elected to the Cornell University Council, serving from 1971 to 1977 and again from 1978 to 1981.



Alexis Wenski-Roberts/Image Lab

Dubovi

want to have a system in place so if you have a sick dog or a sick chicken, you come up with the answer to the problem. Ruling out a single disease doesn't tell you anything. There's a big chance of missing something significant in the very animal you have in the system, because there's not enough funding behind it to actually [find out] why this animal has the disease."

Dubovi would like to set up a surveillance system for companion animals, possibly associated with organizations like the SPCA and based in high-population areas like New York City, "so that if there is a new and emerging disease coming out there, we

can spot it," he says. New York State's Department of Agriculture and Markets already contracts with Cornell to perform similar services for the food and fiber industry, subsidizing testing as a way of encouraging farmers to come forward with health problems among their livestock. State law gives the agriculture commissioner responsibility for the health and welfare of all animals in New York, including wildlife. But current concern over the potential for bio-terrorist attacks has drawn much of the state's attention—and money—away from more mundane risks like influenza. "The funding base, particularly here in New York, just isn't there for zoonotic disease surveillance," Dubovi says, "and I'm not sure we'll ever see it until or unless we have a major outbreak of disease that makes it politically unacceptable to ignore the situation."



For a quarter of a century the Zweig Fund has supported numerous studies in all aspects of equine care. A series of events celebrates this anniversary year. To learn more, please visit: <http://www.vet.cornell.edu/public/research/zweig>.

"Because of her father's love of Cornell and the activities she participated in with him relating to his class, I think she felt a certain kinship to the university," wrote Thomas Phelan, her longtime attorney and co-executor of her estate. "In addition, some of her father's friends had a very fine reputation for giving at Cornell, and that was an inspiration." Those friends included Jansen Noyes and Robert Purcell, very prominent university benefactors.

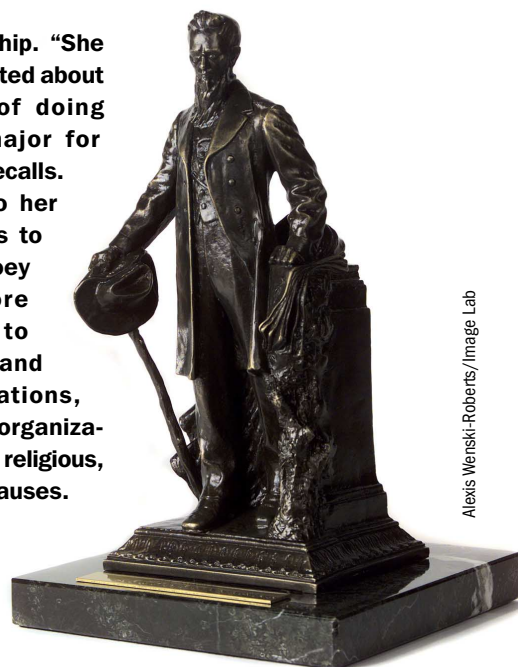
Born in 1922, Miss Hooley worked on Wall Street after graduating in 1943 with a major in economics and a minor in political science. She also pursued studies in the New York University Graduate School of Business Administration and two years of night classes at

Fordham University's School of Law. She worked as a securities analyst with Lehman Brothers until 1962. She then traveled extensively and became active in local politics. She resided in Chatham, N.J.

Miss Hooley's beloved poodle, Katie, shared her home for 18 years and played an important role in inspiring her to provide for the care of future generations of animals. Late in life, she decided to consolidate a substantial portion of her estate into one gift for the benefit of animals rather than making many smaller bequests to various animal causes. When Phelan asked Cornell trust officer Jack Murphy how his client might do something especially meaningful for the College of Veterinary Medicine, he sug-

gested the deanship. "She was genuinely excited about the possibility of doing something so major for Cornell," Phelan recalls.

In addition to her principal bequests to Cornell, Miss Hooley bequeathed more than \$1 million to animal shelters and humane organizations, charitable relief organizations, and medical, religious, and educational causes. In a final exceptional act of generosity, she donated her body for medical research. At her request, there was no obituary written to give testimony to her accomplishments and unending concern for others. It will be our special privilege to remember her here.



Alexis Wenski-Roberts/Image Lab

This statue of Ezra Cornell is presented to foremost benefactors of the university. Austin and William Hooley were given that honor for their extraordinary support to Cornell.

Grambows Honored for Service

Alexis Wenski-Roberts/Image Lab



Pictured with Dean Smith and Elizabeth Lynch (DVM '95), College Advisory Council chair (far right), are Dick (DVM '57) and Barbara (BS '56) Grambow being presented with a Steuben Bear in thanks for their many years of leadership and service to their fellow alumni and the college community.

CVM people

FACULTY

Rodney Page, DVM, Dipl. ACVIM, was selected as a recipient of the Washington State University College of Veterinary Medicine's John E. McCoy award in February. Regarded as very prestigious by Washington State University, the award is given to those reflecting extensive contributions to the profes-

sion. After receiving the award, he delivered a lecture reviewing his work over the last decade. Page is a professor in the Department of Clinical Sciences and the director of the Sprecher Institute for Comparative Cancer Research.



Page

Alexis Wenski-Roberts/Image Lab

Foremost Benefactors

Like his father before him, **James McClure**, DVM '69, devoted his working life to one of the most giving professions of all, veterinary medicine. Though forced by illness to turn his practice over to his son, Adam, BS AGR '97, DVM '00, three years ago, Jim still asks himself every morning what he can do to help someone else. He usually focuses on the personal deeds he can accomplish that day, but he and his wife, Roni, have also given careful thought to the service they can render after all their days have ended. There was no doubt which institution they would choose to carry their good works forward. "Cornell was our pick, and not only as our alma mater," Jim explains. "In education, in the research being done there, and in the application of

that research, Cornell influences literally the rest of the world."

When a piece of property was reassessed at a much higher value, the McClures knew that their opportunity had come. They had already met once with Chip Bryce, director of the Office of Planned Giving, so they gave him a call. "He and I planned everything," Jim says. "The property had a very, very low cost basis. We deeded it into a trust; our trust sold it; then we transferred the trust over to Cornell."

The result was the establishment of the James G. and Ronetta E. McClure Charitable Remainder Trust. The \$1.2 million endowment will fund a graduate teaching fellowship and a dean's fund for new initiatives in the College of Agriculture and Life Sciences and a

veterinary residency in oncology, the first gift of its kind for the College of Veterinary Medicine.

"It's been a win-win situation for us and Cornell," Jim continues. "Making this gift gave us a charitable deduction and a huge break on capital gains tax. The trust gives us a lifetime income. But it's also gotten us so much closer to the university. We really feel that we're part of the Cornell family now. Going through this process has been very rewarding and enriching for us."

"And actually," Roni continues, "going back to campus with us for the Foremost Benefactor celebration really brought our children into the Cornell family as well. All five of our grandchildren were there, and they were just mesmerized with everything that was

Elizabeth Buckles, DVM, MS, PhD, Dipl. ACVP, has joined the college's Department of Biomedical Sciences as an assistant professor of anatomic pathology. She holds a DVM and an MS from the Ohio State University and a PhD from the University of California, Davis. Prior to coming to Cornell in July, she was a post-graduate researcher at the University of California, Davis. Buckles's research interests focus on the pathogenesis of infectious bronchitis virus of chickens and infectious diseases of both wild and domestic birds and how diseases affect wild populations.



Buckles

John Schimenti, PhD, is a professor of genetics with a primary appointment in the Department of Biomedical Sciences in the College of Veterinary Medicine and an adjunct appointment in the

Department of Molecular Biology and Genetics in the College of Arts and Sciences. He also serves as director of the new Center for Vertebrate Genomics at Cornell. He received a BA from Rutgers College with majors in English and biological sciences, and a PhD



Schimenti

in developmental biology from the University of Cincinnati. After a post-doctoral fellowship with Lee Silver at Princeton studying mouse genetics, he became an assistant professor in the Department of Genetics at Case Western Reserve University where he received the Searle Scholars Award and a Basil O'Connor award from the March of Dimes, and was named a Presidential Young Investigator by the National Science Foundation. Before relocating to Cornell, he was a senior staff scientist at the Jackson Laboratory in Bar

Boehringer Gift

When **Bruce Boehringer**, DVM '64, retired and sold his small animal practice in Freemont, Calif., he gifted part of the proceeds to the Cornell University College of Veterinary Medicine. Boehringer's contribution was added to the college's general endowment, which the dean uses to address priorities of the college. A dedicated Cornellian, Boehringer has maintained close ties with the veterinary college over the years, offering externship opportunities for DVM students as well as visiting the college during his frequent trips to Buffalo, N.Y., his hometown. In addition to this gift, he and Melinda, his wife, have provided for a gift in their wills. He and Melinda were honored for their support during Cornell Reunion Weekend last June. Dean Donald Smith presented them with a framed certificate, in appreciation for their generosity. The couple currently lives in Newark, Calif.

going on. Now they all want to go to Cornell!"

When the McClures created the trust in November 2000, the former high-school sweethearts were both 54 and looking at a long future. Three months later, Jim was diagnosed with metastatic prostate cancer. A man of deep spirituality, he is open about his illness and more committed than ever to making every day count. "Every day is a gift from God," he says. "We just live one day at a time and get the most joy and the most love out of every day that we can."

Making a lasting gift to Cornell has brought joy and love to many of their days, and their focus is fixed on the good that it will bring in the future. "The Cornell spirit is alive and well in the faculty, the staff, in everyone we've interacted with there," Jim says. "That's what we love to see keep going and spread into the rest of the world."



James, Roni, and Adam McClure following the Foremost Benefactor Ceremony in June 2004.

Harbor, Maine. Schimenti has served as a permanent member of the Eukaryotic Genetics review panel at NSF, the Mammalian Genetics study section at NIH, and is currently on the Secretariat of the International Mammalian Genome Society. His research is funded primarily by the National Institutes of Health.

Karyn Bischoff, DVM, MS, Dipl. ABVT, joined the Department of Population Medicine and Diagnostic Sciences as an assistant professor in clinical toxicology last August. She received her DVM from the University of Illinois and did a residency in toxicology at Oklahoma State University. Prior to coming to Cornell, she completed a residency in pathology from the University of Florida, Gainesville.

Joanne Messick, DVM, PhD, began her duties as associate professor in the section of clinical pathology in the Department of Population Medicine and Diagnostic Sciences in July. She received her DVM from the University of Pennsylvania and her PhD from Ohio State University. Before coming to



Messick

Cornell, she was an associate professor in the Department of Veterinary Pathology at the University of Illinois. Messick's research interests include haemotrophic mycoplasmas.



Stokol

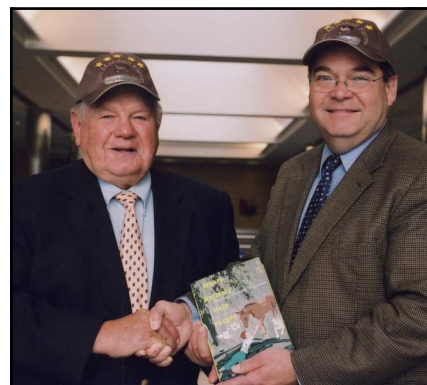
Tracy Stokol, BVSc, PhD, Dipl. ACVP, has moved into a tenure track position in the Department of Population Medicine and Diagnostic Sciences. She received her Bachelor of Veterinary Science from the University of Melbourne, Australia. She came to Cornell as an instructor before accepting a position as a postdoctoral fellow in the Department of Pathology at Brigham and Women's Hospital, Harvard University, and returned to Cornell as an assistant professor in 2002. Stokol's research interests encompass hemostatic and hematopoietic diseases in animals and mechanisms of cancer metastasis.

Teresa Gunn, PhD, assistant professor of genetics in the Department of Biomedical Sciences, has received the 2004



Gunn

Animal Therapy



Dede Hatch

Dr. Jim Marshall has opened a non-profit animal therapy program at his farm in Chittenango, N.Y. He is seen here giving Dean Smith a copy of his recently published book, *Where Animals Help People: Surviving Suicidal Depression*. In the book, Dr. Marshall chronicles his life and struggles with depression and shares his belief in the positive effect animal contact can have in mental illness.

Pfizer Animal Health Award for Research Excellence. The award is intended to foster creative research by recognizing outstanding research effort and productivity. Gunn focuses her re-



Surgery Suite Named for Leonard

A surgery for small animals at the Cornell University Hospital for Animals has been named for **Harmon C. Leonard**, DVM '44. Leonard, who is retired, was a widely published small animal veterinarian and surgeon whose achievements included investigation and development of a series of surgical techniques to relieve upper airway problems in dogs. In 2000 he and his wife, Josephine (Joey) Leonard, made a gift of real estate to establish a charitable remainder trust, with the College of Veterinary Medicine as beneficiary. The naming of the Harmon C. Leonard DVM Soft Tissue Surgery Suite was announced at a dedication during Reunion Weekend in June 2004. The suite is used for the majority of elective and referral soft tissue procedures, including surgery for cancer and trauma. The Leonards live in Salida, Colo., and spend their winters in Gold Canyon, Ariz.

search on the genetics of adult-onset neurodegenerative disease by using mice with disease-linked pigmentation mutations as a model genetic system.

ALUMNI

Delano L. Proctor Jr., '42, received the American Veterinary Medical Association (AVMA) Award during the AVMA Annual Convention in Philadelphia in July. The award is given in recognition of distinguished contributions to the advancement of veterinary medical organizations.

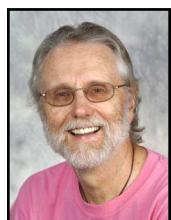
Proctor served as president of the American Association of Equine Practitioners (AAEP) in 1970 and has been active on several committees since.

AWARDS

At the NY2K Veterinary Conference held in Saratoga in October, the New York State Veterinary Medical Society presented their annual awards.

Bridget M. Barry, DVM '90 and **Walter K. McCarthy**, DVM '75

each received the NYSVMS Merit Award. The Merit Award honors a society member for their significant contributions to the regional and state society and the advancement of the veterinary profession.



Scott

Dr. Danny W. Scott, professor of Clinical Sciences at the college, was presented the Outstanding Service Award for his efforts that have significantly contributed to the advancement and improvement of veterinary medicine in New York State.

Burton Saunders, DVM '55 was awarded the 2004 New York State Veterinarian of the Year. The award is given to the NYSVMS member who, over the course of many years, served the regional and state society, and veterinary profession in an exemplary and distinguished manner and who is judged by his/her peers to be the most deserving to receive the award.



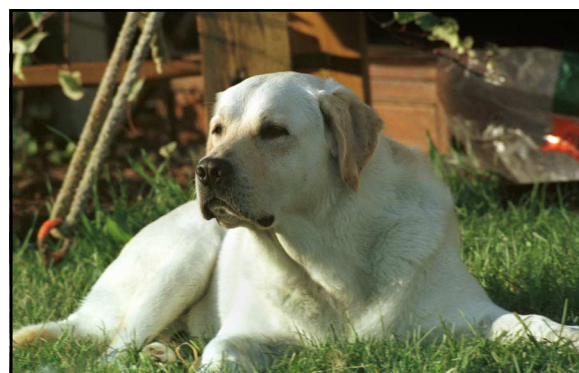
Hampton Classic

BRIDGEHAMPTON, N.Y.

Cornell at the Classic was made possible by sponsorship from Burt and Luculle Saunders and Jump! Apparel. Attending the event created the opportunity for faculty to interact with horse owners at the show as well as alumni and friends of the college.

Wine Country Circuit Dog Shows

In Romulus, N.Y., Cornell faculty members Vickie Meyers-Wallen and Rory Todhunter gave talks focused on predicting ovulation, cryptorchism, and hip dysplasia to owners and breeders at the show—one of the biggest in the country, hosting nearly 2,500 dogs during the four days of competition.



endnote

This issue of *Cornell Veterinary Medicine* contains the last of three articles published in the past 18 months featuring distinguished professors emeriti who graduated from Cornell University during the middle 1940s. *They also are your husbands.*

Professors Fox and Kirk are clinicians; Professor Evans is an anatomist. Each was a highly respected leader in his time and leaves an unforgettable legacy for his beloved profession. They also served as department chairs for their respective disciplines during an important period of expansion and development in the history of the college.

Your husbands earned the privilege of being esteemed members of what TV anchor and author Tom Brokaw describes as the “greatest generation” of Americans. These were the leaders and ordinary people alike who grew up during the Great Depression and the Second World War and then went on to build modern America.

One experience these three men have shared is the central role that you, their spouses, have played in the success of their respective careers, and also in the life of the college as a whole. Friends and colleagues in the veterinary profession locally and nationally have always known you as couples: Francis and Cully, Bob and Helen, Howie and Erica. However, in talking with your husbands recently, each expressed profound regret that insufficient credit has gone to the roles that you had in their

An open letter to Erica Evans, Cully Fox, and Helen Kirk

respective career accomplishments at Cornell University and in the advancement of the profession in New York State and beyond.

In reality, the visible role that you each played in college life is remembered with special fondness. You were truly engaged in the activities of the college. The enduring impact that you had on others is evident during reunions and other college gatherings, when you are greeted with genial solicitude and gratitude from former students, and then engage these veterinarians from all walks of life in conversation about the current challenges of the profession.

You also had an impact that was seldom evident in the public eye of the university. What the admiring public did not see was the resolute support and the understated wisdom that directed and sustained many critical aspects of your husbands’ professional careers. Each of the three acknowledged that they could not have realized their exceptional achievements as scholars, clinicians, educators, and authors without your intellectual guiding force and your inspiration. While your influence is

largely invisible in the professional arena, your husbands value each of you as partners in their work as well as in life.

As in the rest of society, the role of spouses and partners in the life of the college and the veterinary profession has changed greatly in the past two generations. The purpose of this brief tribute is not to compare the relative merits of gender roles or family structure prevalent in the middle decades of the last century with those today. Indeed, then as now, there are numerous examples of enduring partnerships that are powerful, not only in the personal sphere, but also in the broader community.

The goal of this public letter is simply to extend appreciation to you, representing a broad cohort of spouses and partners of both genders, whose contributions in your time and place left an imprint on the life and success of this great college.

To each of you—Erica, Cully, and Helen—symbolic of all engaged partners of veterinarians from the “greatest generation,” this endnote is dedicated with love, admiration, and respect, and above all, with sincere thanks.

Fondly,



Austin O. Hooey Dean of Veterinary Medicine

survey

survey

coming events

JANUARY 2005

- 8-12 North American Veterinary Conference,
Orlando, Florida
- 9 Alumni Reception, North American
Veterinary Conference, Orlando, Florida
- 21-22 Cornell Association of Class Officers,
New York, New York

FEBRUARY

- 20-22 Western States Conference,
Las Vegas, Nevada
- 21 Alumni Reception, Western States
Conference, Las Vegas, Nevada

APRIL

- 8-10 Zoo and Wildlife Society Conference,
Cornell
- 16 39th Annual Open House, Cornell
- 23 Feline Follies, Cornell

MAY

- 29 Cornell Graduation

JUNE

- 9-11 Cornell Reunion
- 12-14 Annual Veterinary Conference

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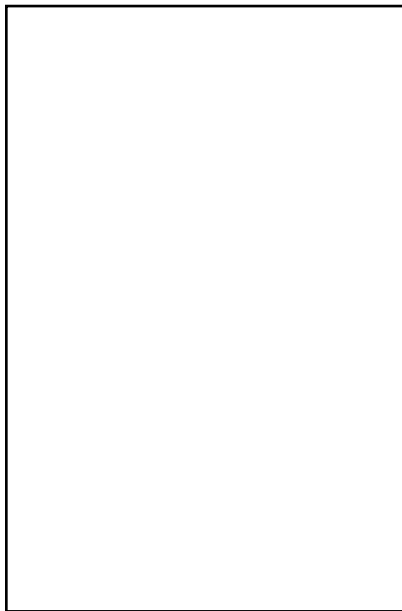
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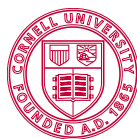


Roy Pollock

Charles Harrington/CU Photography



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